

# FY 2017 Performance and Accountability Report



## Defense Nuclear Facilities Safety Board

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November 15, 2017

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## **Chairman's Message**

I am pleased to submit the Performance and Accountability Report (PAR) of the Defense Nuclear Facilities Safety Board (Board) for Fiscal Year (FY) 2017. The report presents the FY 2017 performance accomplishments, as well as key financial and performance information on our resource utilization. The Board's mission is to provide independent analysis, advice, and recommendations to the Secretary of Energy in his role as operator and regulator of Department of Energy (DOE) defense nuclear facilities, to ensure adequate protection of public health and safety at such defense nuclear facilities. The Board is required by statute to review and evaluate the content and implementation of standards relating to the design, construction, operation, and decommissioning of DOE defense nuclear facilities, and to review the design of new DOE defense nuclear facilities.

Among its activities this year, the Board held a public hearing on June 7, 2017, on the topic of the safety posture of the Plutonium Facility at Los Alamos National Laboratory (LANL) in Santa Fe, New Mexico. The purpose was to gather information regarding the risk associated with current and future Plutonium Facility inventory levels, actions taken by the National Nuclear Security Administration (NNSA) and LANL to address opportunities identified by the Board to minimize material-at-risk, actions to reduce facility risk for long-term operations, and the adequacy and status of safety systems to support current and long-term operations.

The Board is committed to ensuring that public resources in its trust are used wisely. I am pleased to report that, based on Federal Managers Financial Integrity Act (FMFIA) assessments, I have concluded (as required by Office of Management and Budget (OMB) Circular A-136) that the agency is in substantial compliance with FMFIA, and the financial and performance data published in this report are complete and reliable.

The Board remains committed to its nuclear safety mission at our nation's defense nuclear facilities. I am proud to lead our dedicated employees whose standard of excellence in carrying out this important mission mirrors the best of American excellence, values, and ideals.

Sean Sullivan  
Chairman  
November 15, 2017

## **Chapter 1 - Management's Discussion and Analysis**

### **Introduction**

This Performance and Accountability Report summarizes the Board's oversight activities and associated resource expenditures for the period from October 1, 2016 through September 30, 2017 (FY 2017). This report was prepared pursuant to the requirements of the Accountability of Tax Dollars Act of 2002 and OMB Circular A-136, which provides instructions on the preparation of a PAR. FY 2017 is the fourteenth year that the Board has prepared and published a PAR.

The Government Performance and Results Act of 1993 (GPRA) and the GPRA Modernization Act of 2010 require each agency to prepare and submit a strategic plan establishing long-term programmatic, policy, and management goals. The Board's Strategic Plan for FY 2014-2018 is available on the Internet at [www.dnfsb.gov](http://www.dnfsb.gov). The draft Board's Strategic Plan for FYs 2018-2022 is currently being developed by the Board Members. Agencies are also required to develop a performance budget with annual performance objectives that indicate the progress toward achievement of the strategic plan's goals and objectives. The Board's performance objectives for FY 2018 and FY 2019, as well as accomplishments for FY 2014 through FY 2017, will be included in its FY 2019 Budget Request to the Congress in accordance with the requirements of OMB Circular A-11. For FY 2017, the GPRA requirement to submit an annual performance report is satisfied by this PAR. The Board also published its *Twenty-Seventh Annual Report to Congress* on April 27, 2017, which highlighted achievements of the Board from Calendar Year 2016.

This chapter of the PAR provides an overview of Board operations and is divided into five sections: *About the Defense Nuclear Facilities Safety Board* describes the agency's mission and organizational structure; *Future Challenges* includes a review of upcoming issues; *Program Performance Overview* discusses the Board's success in accomplishing its performance goals; *Financial Performance Overview* provides highlights of the Board's financial position and audit results; and *Systems, Controls, and Legal Compliance* describes the agency's compliance with key legal requirements such as the FMFIA and the Inspector General Act of 1978.

### **About the Defense Nuclear Facilities Safety Board**

#### **Mission Statement**

The mission of the Board is to provide independent analysis, advice, and recommendations to the Secretary of Energy to inform the Secretary, in his/her role as operator and regulator of DOE defense nuclear facilities, in providing adequate protection of public health and safety at such defense nuclear facilities.  
42 U.S.C. § 2286a.(a)

## The Board's Legislative Mandate

The Board's specific functions are delineated in its enabling statute at 42 U.S.C. § 2286a.(b):

- The Board shall review and evaluate the content and implementation of the standards relating to the design, construction, operation, and decommissioning of defense nuclear facilities of the DOE (including all applicable DOE orders, regulations, and requirements) at each DOE defense nuclear facility. The Board shall recommend to the Secretary of Energy those specific measures that should be adopted to ensure that public health and safety are adequately protected. The Board shall include in its recommendations necessary changes in the content and implementation of such standards, as well as matters on which additional data or additional research are needed.
- The Board shall investigate any event or practice at a DOE defense nuclear facility that the Board determines has adversely affected, or may adversely affect, public health and safety.
- The Board shall have access to and may systematically analyze design and operational data, including safety analysis reports, from any DOE defense nuclear facility.
- The Board shall review the design of a new DOE defense nuclear facility before construction of such facility begins and shall recommend to the Secretary, within a reasonable time, such modifications of the design as the Board considers necessary to ensure adequate protection of public health and safety. During the construction of any such facility, the Board shall periodically review and monitor the construction and shall submit to the Secretary, within a reasonable time, such recommendations relating to the construction of that facility as the Board considers necessary to ensure adequate protection of public health and safety. An action of the Board, or a failure to act, under this paragraph may not delay or prevent the Secretary of Energy from carrying out the construction of such a facility.
- The Board shall make such recommendations to the Secretary of Energy with respect to DOE defense nuclear facilities, including operations of such facilities, standards, and research needs, as the Board determines are necessary to ensure adequate protection of public health and safety. In making its recommendations, the Board shall consider, and specifically assess, risk (whenever sufficient data exists), and the technical and economic feasibility of implementing the recommended measures.

## Strategic Plan

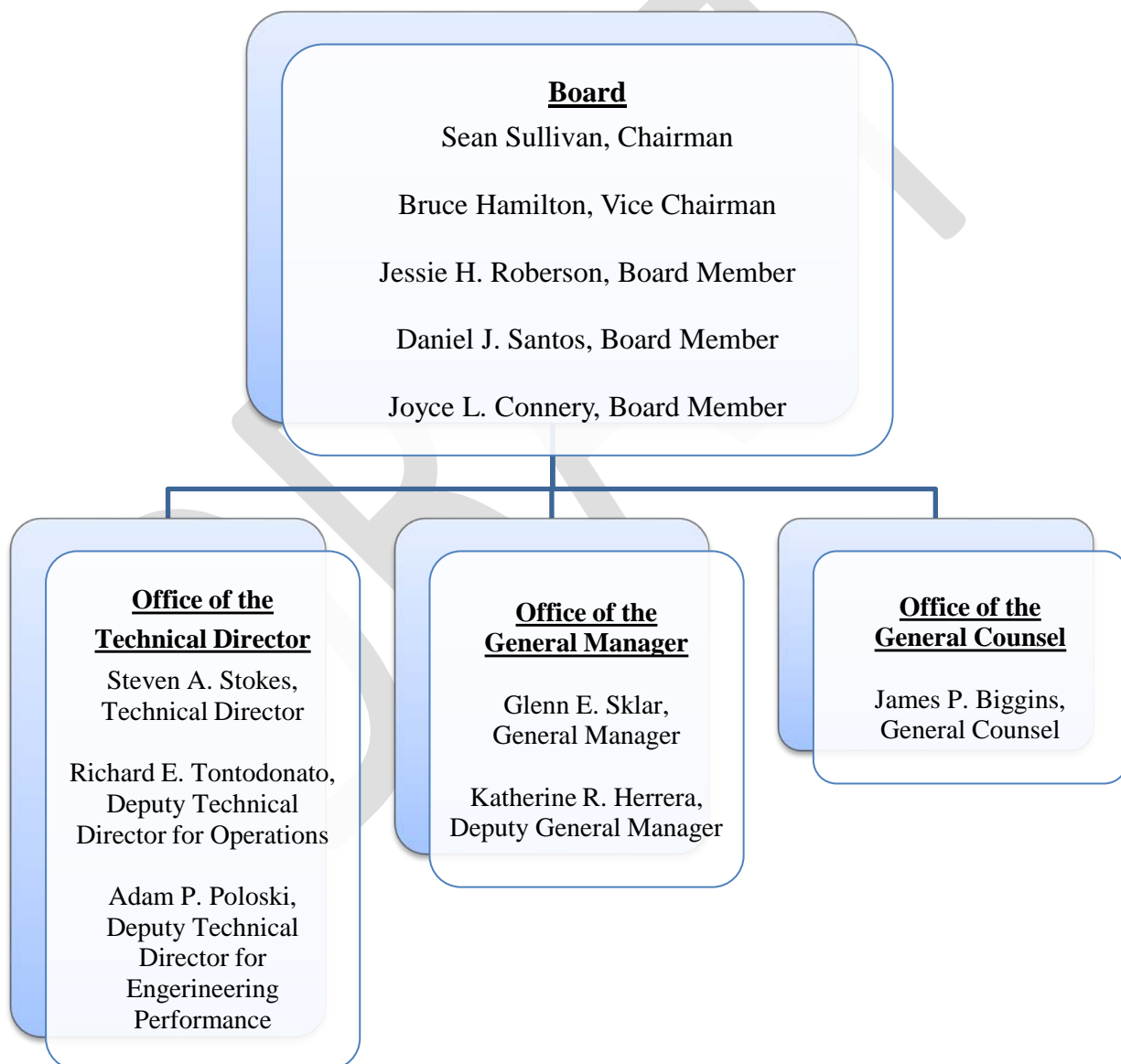
The Board is currently developing the FY 2018-2022 Strategic Plan, which will continue to support its statutory mission by refining the goals and strategic objectives to continue to support a strong culture of technical safety oversight. The Board expects to complete its Strategic Plan by the end of Calendar Year 2017.

**Organization**

The five Board members lead the agency in defining actions regarding the safety aspects of the design, construction, operation, and decommissioning of DOE’s defense nuclear facilities.

In FY 2017, the Board was comprised of 115 federal Full Time Equivalents (FTEs) arranged in a relatively flat management structure. More than 80 FTEs are assigned to the Office of the Technical Director (OTD), where they directly carry out the mission of the Board, supported by the Office of the General Manager (OGM) and the Office of the General Counsel (OGC).

**Organizational Chart**



## Future Challenges in Providing Oversight of the DOE Defense Nuclear Complex

The Board is continuing its focus on DOE's ability to effectively respond to an emergency at one of its defense nuclear facilities. The Board issued Recommendation 2015-1, *Emergency Preparedness and Response at Pantex*, on October 5, 2015, to ensure that DOE corrected specific deficiencies at the Pantex Plant. DOE accepted both recommendations and DOE has been steadily accomplishing the implementation plans for both recommendations. The Board will continue monitoring actions taken as part of the implementation plans, including performing focused reviews at major DOE defense nuclear sites to further assess site-level deficiencies and the effectiveness of DOE's corrective measures regarding emergency planning and response.

The Board needs to continue its oversight of operations throughout the DOE defense nuclear complex to ensure operations are conducted safely. These operations include assembly and disassembly of nuclear weapons, fabrication of plutonium pits and weapon secondaries, production and recycling of tritium, criticality experiments, subcritical experiments, and a host of maintenance and other activities to address the radioactive legacy of more than 70 years of these operations. Continued effective oversight of the conduct of operations is the only way the Board may ascertain whether operations are being conducted with the appropriate formality, identify potential safety problems promptly, and advise the Secretary of Energy in order to ensure adequate protection of public and worker safety at DOE defense nuclear facilities. Moreover, DOE's numerous design and construction projects are beginning to culminate in the commissioning and startup of new facilities, which will pose a specific set of operational safety concerns requiring oversight by the Board. Upcoming and in-progress startups include the Integrated Waste Treatment Unit at Idaho National Laboratory (INL), the Transuranic Waste Facility at LANL, and the Salt Waste Processing Facility at the Savannah River Site (SRS), with many more to come in future years.

Many DOE facilities are degraded, and the transition to new facilities will take decades. The Chemistry and Metallurgy Research Facility at LANL and facilities at Y-12 such as the 9212 Complex, 9204-2E, and the 9215 Complex are of particular concern because of their deficient structures and advanced age. The Board will need to evaluate the rigor and maintenance of a robust safety posture in such facilities and inform the Secretary of potential threats to public health and safety.

In addition to conducting nuclear safety oversight of existing defense nuclear operations, the Board is obligated by statute to conduct reviews of new defense nuclear facilities during design and periodically during construction to recommend to the Secretary any action necessary to ensure adequate protection of the public. DOE has more than a dozen major design and construction projects currently underway or planned for the near future. The Board will continue to expend resources to review the ongoing design efforts as well as the construction activities at new DOE defense nuclear facilities, concentrating its oversight attention on the projects with high risk, significance, and complexity. The scope of these design and construction projects will present a continuing challenge. To help address this challenge, the Board recently issued Policy Statement 6, *Policy Statement on Oversight of Design and Construction of Defense Nuclear Facilities*, on July 24, 2017.

The *Inspector General's Assessment of the Most Serious Management and Performance Challenges Facing the Board*, included as Appendix A, discussed other challenges facing the Board.

### **Program Performance Overview**

The Board's Strategic Plan, located at [www.dnfsb.gov](http://www.dnfsb.gov), includes the following strategic goals and strategic objectives to achieve its mission:

- **Strategic Goal 1, Improve Safety of Operations:** Perform independent oversight of operational safety of DOE's defense nuclear facilities to develop analysis, advice, and recommendations that will inform the Secretary of Energy in providing adequate protection of public health and safety at such defense nuclear facilities.
  - Strategic Objective 1.1 - Accomplish independent and timely oversight to strengthen safety of operations involved in the maintenance of the nuclear weapons stockpile and in weapons-related research, development, and testing.
  - Strategic Objective 1.2 - Accomplish independent and timely oversight to strengthen safety of operations in cleanup of legacy defense nuclear wastes and facilities.
- **Strategic Goal 2, Strengthen Safety Standards:** Recommend and promote effective safety standards for the Secretary of Energy to apply in providing adequate protection of public health and safety at such defense nuclear facilities.
  - Strategic Objective 2.1 - Accomplish independent oversight to strengthen the development, implementation, and maintenance of DOE regulations, requirements, and guidance for providing adequate protection of public health and safety at defense nuclear facilities.
  - Strategic Objective 2.2 - Accomplish independent oversight to improve the establishment and implementation of safety programs at defense nuclear facilities.
- **Strategic Goal 3, Strengthen Safety in Design:** Recommend and promote safety in design for new and modified defense nuclear facilities.
  - Strategic Objective 3.1 - Accomplish independent oversight to strengthen the use of approved nuclear standards in the design and construction of defense nuclear facilities and major modifications to existing facilities.
  - Strategic Objective 3.2 - Accomplish independent safety oversight to enhance the clear and deliberate implementation of the principles and core functions of integrated safety management in the design, construction, and upkeep of safety systems in defense nuclear facilities.



- **Strategic Goal 4, Achieve Excellence in Management and Communication with Stakeholders:** Operate in a manner that is accountable to the public and achieves the mission efficiently and effectively.
  - Strategic Objective 4.1 - Improve management controls to achieve the Board's mission efficiently and effectively.
  - Strategic Objective 4.2 - Improve the alignment of human capital strategies with agency mission, goals, and objectives through analysis, planning, investment, measurement, and management of human capital programs.
  - Strategic Objective 4.3 - Improve and sustain effective, transparent two-way communications between the Board and its stakeholders on safety issues in DOE's defense nuclear complex and on the Board's operations.

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## Interrelationship of the Strategic Objectives

The interrelationship of these four strategic goals and their associated objectives must be understood to appreciate the efficiency of the Board's operating plan and corresponding organizational alignment. The "lessons learned" from the Board's health and safety oversight activities cut across each of these four areas. For example, in order to oversee safety at SRS the Board must assess the safety of nuclear material processing and stabilization activities such as disposing of high-level waste and the safety of nuclear weapon support activities involving tritium operations (Strategic Goal 1), including the adequacy of standards (Strategic Goal 2), while also assessing the construction of new defense nuclear facilities such as the Salt Waste Processing Facility (Strategic Goal 3). Performing these assessments requires effective management controls, the recruitment and retention of scientific and technical staff members with outstanding qualifications, and effective and transparent communication with stakeholders (Strategic Goal 4).

Regular information sharing among the Board's matrixed technical staff supports the interrelationship of all four strategic goals. The Board's technical staff has been organized specifically to achieve the agency's performance goals and to execute its Strategic Plan and Annual Performance Plans. Using a matrix form of organization, the Board gains management flexibility and avoids the need to establish layers of middle management that divert staff resources from performing health and safety reviews. The Board utilizes five interrelated technical groups staffed with technical specialists having both the education and work experience commensurate with their designated oversight assignments. Depending on the urgency of an issue, the Board's flexibility enables reassignment of resources among these groups as necessary.

The Board is in the process of adjusting its goals to focus more on safety outcomes, as opposed to numerical outcomes. The FY 2017 performance goals and accomplishments associated with each of these strategic objectives, as well as prior-year data, are shown in full in Chapter 2 of this report. A summary follows:

**Strategic Goal 1**

**Strategic Objective 1.1**

Goal	Goal Statement	Target Measure, Milestone, or Deliverable	Result
1.1.1	Conduct effective oversight through formal, well-planned safety reviews of the NNSA’s defense nuclear facilities engaged in maintenance of the nuclear weapons stockpile and in weapons-related research, development, and testing.	Complete 10 reviews	Achieved  > 10 Reviews
1.1.2	Conduct effective oversight through formal, well-planned reviews of NNSA’s nuclear explosive safety activities.	Complete 3 reviews	Achieved  > 3 Reviews
1.1.3	Notify NNSA of potential safety issues at NNSA defense nuclear facilities and in nuclear weapons operations.	90% (measured collectively with goals 1.2.2, 2.2.2, 3.2.2)	Not applicable.  There was no Board correspondence to NNSA regarding potential new safety issues in FY 2017.  The correspondence to NNSA focused on management of previously accepted safety deficiencies.
1.1.4	Maintain a near-continuous oversight presence at each of the following sites: LANL, Y-12, and Pantex.	220 days	Achieved  Coverage at all three sites exceeded 220 days

The Board fully achieved three goals, with one goal not applicable, related to safety of operations involved in the maintenance of the nuclear weapons stockpile and in weapons-related research, development, and testing. The Board achieved its goal of conducting effective

oversight of NNSA facilities by completing twenty-two (versus the goal of ten) reviews, and achieved its goal of conducting effective oversight of nuclear explosive activities by completing four (versus the goal of three) reviews. The Board’s goal of providing effective notification of potential safety issues was not applicable this year as 100 percent of correspondence to NNSA focused on the management of previously accepted safety deficiencies. Goal 1.1.4 was achieved by ensuring coverage from headquarters staff when the permanent resident inspectors at the locations were away due to leave, travel, etc.

**Strategic Objective 1.2**

Goal	Goal Statement	Target Measure, Milestone, or Deliverable	Result
1.2.1	Conduct effective oversight through formal, well-planned safety reviews at DOE-EM operating defense nuclear facilities and facilities undergoing decommissioning and decontamination.	Complete 10 reviews	Achieved  > 10 Reviews
1.2.2	Notify DOE of potential safety issues at DOE defense nuclear facilities and in nuclear waste remediation operations.	90% (measured collectively with goals 1.1.3, 2.2.2, 3.2.2)	Not applicable.  There was one Board letter notifying DOE of a potential new safety issue in FY2017. The letter was provided for DOE’s use as appropriate.  There have been no responses received from DOE on letters sent in FY17.
1.2.3	Maintain a near-continuous oversight presence at the Hanford Site and SRS.	220 days	Achieved  Coverage at both sites met or exceeded 220 days

The Board achieved its three goals related to safety of operations involved in the cleanup of legacy defense nuclear wastes and facilities. The Board achieved its goal of conducting effective oversight of DOE-EM's facilities by completing thirteen (versus the goal of ten) reviews. The Board sent one letter to DOE on September 13, 2017 regarding the designation and use of specific administrative controls at the SRS, for DOE's use and information, and did not request a response. Therefore, the goal of providing effective notification of potential safety issues was not applicable in FY 2017, as the Board requested no responses for correspondence issued to DOE. Goal 1.2.3 was achieved by ensuring coverage from headquarters staff when the permanent site representatives at the locations were away due to leave, travel, etc.

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## Strategic Goal 2

### Strategic Objective 2.1

Goal	Goal Statement	Target Measure, Milestone, or Deliverable	Result
2.1.1	Strengthen DOE's Directives by providing timely oversight and comments to improve revised and newly issued DOE Directives (as noted on the list of "Directives of Interest to the Board").	95%	Achieved  100%
2.1.2	Conduct effective oversight of the implementation of DOE Directives (as noted on the list of "Directives of Interest to the Board") through formal, well-planned safety reviews of DOE defense nuclear facilities.	Complete 3 reviews	Achieved  > 3 Reviews

The Board achieved its two goals related strengthening the development and implementation of DOE Directives, reviewing 100 percent of Directives within the Review Date Deadline, versus the goal of 95 percent, and completing five reviews of DOE's implementation of Directives, versus the goal of three reviews.

**Strategic Objective 2.2**

<b>Goal</b>	<b>Goal Statement</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2.2.1	Conduct effective oversight through formal, well-planned reviews of DOE’s establishment and implementation of safety programs at defense nuclear facilities.	Complete 4 reviews	Achieved  4 Reviews
2.2.2	Notify DOE of potential actions to improve establishment and implementation of safety programs at DOE defense nuclear facilities.	90% (measured collectively with goals 1.1.3, 1.2.2, 3.2.2)	Not applicable.  There was no Board correspondence to DOE regarding potential new issues with safety programs in FY 2017.  There have been no responses received from DOE on letters sent in FY17.

The Board achieved its goal of conducting effective oversight of DOE’s establishment and implementation of safety programs at defense nuclear facilities by completing four reviews. The goal for improving establishment and implementation of safety programs at DOE defense nuclear facilities is not applicable, as there were no responses from DOE for correspondence issued to DOE. However, there was one Board letter notifying DOE of potential new safety issues in FY2017 associated with occurrence reporting and processing of operations information at defense nuclear facilities. The letter established a reporting requirement for DOE to provide a report regarding any supplemental actions planned by line management to ensure safety oversight is not degraded at defense nuclear facilities prior to implementing DOE Order 232.2A, Occurrence Reporting and Processing of Operations Information.

**Strategic Goal 3**

**Strategic Objective 3.1**

Goal	Goal Statement	Target Measure, Milestone, or Deliverable	Result
3.1.1	Promote and strengthen the early integration of safety into the design and construction of DOE’s defense nuclear facilities by reviewing the adequacy of safety design basis documents at major project Critical Decision milestones.	100%	Achieved  100% Complete
3.1.2	Provide early notification to DOE of safety issues at DOE design and construction projects by issuing project letters within 60 days of major Critical Decision milestones to document the Board’s assessment of the project’s safety strategy and readiness to proceed with the next project stage.	Within 60 days	Achieved  Average of <60 days (one letter issued at 18 days and one letter significantly ahead of the CD milestone approval)

For goal 3.1.1, the Board achieved its goal by documenting in a staff report a review of the associated safety design basis document for 100 percent of significant Hazard Category 2 projects achieving a Critical Decision milestone (CD-1, 2, 3, 4). For goal 3.1.2, the Board also achieved its goal as the issuance of project letters to DOE documenting the Board’s assessment of each project’s safety strategy and readiness to proceed averaged less than 60 days from the major Critical Decision milestone.



**Strategic Objective 3.2**

<b>Goal</b>	<b>Goal Statement</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
3.2.1	Conduct effective oversight through formal, well-planned reviews of the design, construction, and upkeep of safety systems at DOE’s defense nuclear facilities.	Complete 10 reviews	Achieved  > 10 Reviews
3.2.2	Notify DOE of potential safety issues regarding design and construction projects at defense nuclear facilities.	90% (measured collectively with goals 1.1.3, 1.2.2, 2.2.2)	Not applicable.  There were two Board letters notifying DOE of potential new safety issues in FY2017. One letter was communicated as an opportunity for improvement. The other was provided to DOE for information and use.  There have been no responses received from DOE on letters sent in FY17.

For goal 3.2.1, the Board achieved its goal by completing 23 (versus the goal of ten) reviews of safety systems. For goal 3.2.2, there were no letters issued to DOE that had a reporting requirement. Therefore, this goal did not apply this fiscal year.

**Strategic Goal 4**

**Strategic Objective 4.1**

<b>Goal</b>	<b>Goal Statement</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
4.1.1	Within OTD, develop and implement formal procedures and Internal Controls prescribing effective and efficient safety oversight of DOE defense nuclear facilities.	Maintain 100% of existing internal procedures by reviewing and revising internal procedures prior to each procedure's Review date.	Not Achieved  7% Complete revision prior to procedure's Review date  41% Review procedure and extend review date prior to the procedure's review date
4.1.2	Within OGM, develop and implement formal procedures and Internal Controls prescribing effective and efficient support of the Board's mission.	96% Complete	Not Achieved  60% Complete
4.1.3	Within OGC, develop and implement formal procedures and Internal Controls prescribing effective and efficient support of the Board's mission.	75% Complete	Achieved  75% Complete

For goal 4.1.1, the Board did not maintain 100 percent of existing internal procedures by reviewing and revising internal procedures prior to each procedure's review date.

For goal 4.1.2, six of the 10 work processes were assessed as having effective internal controls. Corrective action plans are in being developed for the remaining four processes.

The Board achieved 4.1.3 under this strategic objective related to improving its internal control procedures in OGC.

**Strategic Objective 4.2**

<b>Goal</b>	<b>Goal Statement</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
4.2.1	Achieve a more results-oriented performance culture.	To ensure the continued success of the Board’s results-oriented performance culture, develop and implement annual professional development and training opportunities in the areas of performance management and achieving organizational results.	Achieved
4.2.2	Address human capital gaps identified in critical mission functions.	To ensure identified human capital gaps continue to be addressed, develop and implement a structured training and professional development program based on occupation.	Achieved

The Board achieved its goal for 4.2.1 by providing training in performance management for both employees and supervisors. The training focused on the importance of tying performance management to the strategic goals of the agency. The Board also achieved its goal for 4.2.2 by developing and implementing a new program called the Federal External Professional Development Opportunities program supporting and encouraging employees at all levels of the organization to pursue external opportunities for broadened leadership development. The program has been well-received with 3 employees taking advantage of external opportunities never before offered to Board employees.

### Strategic Objective 4.3

Goal	Goal Statement	Target Measure, Milestone, or Deliverable	Result
4.3.1	Provide timely communications of safety observations obtained through direct oversight and maintaining cognizance of nuclear facilities at DOE's nuclear weapons sites.	100%	Not Achieved  Approximately 93% of reports required no more than 21 calendar days based on data available.
4.3.2	Inform the Congress and other stakeholders of potential safety issues early in the design and construction phases of DOE defense nuclear facilities.	1 report	Achieved  1 report submitted to Congress
4.3.3	Effectively communicate safety issues by conducting public hearings in communities near DOE defense nuclear facilities and in Washington, DC.	3 public hearings	Not Achieved  1 public hearing

Goal 4.3.1 was not achieved. During FY 2017, the Board continued to produce and post resident inspector weekly and site monthly reports on the Board's public website. While all of these reports are posted, the Board did not achieve the timeliness metric identified for FY 2017 based on the data that is available. The Board implemented a new process for completing timely internal staff review and external DOE classification and sensitivity reviews in FY 2017. The revised process will ensure reports are posted promptly after security reviews are completed.

Goal 4.3.2 was achieved as the Board published its 27<sup>th</sup> Annual Report to Congress on April 27, 2017, and this report included a section titled, *Status of Significant Unresolved Issues with DOE's Design and Construction Projects*, which satisfied the performance goal. Goal 4.3.3 was not achieved as the Board decided to hold only one public hearing in FY 2017.

The three-year trend data for all performance goals is shown in Chapter 2.

The Board tracks progress toward meeting its technical performance goals on a quarterly basis by evaluating its progress toward the target for each goal. For example, for Performance Goal 1.2.1, the Associate Technical Director—Nuclear Materials Processing and Stabilization determined the number of reviews completed in accordance with the Board's new internal procedures on a quarterly basis. The Associate Technical Director for each group completes records of accomplishment to verify the target metric. The Board's Performance Assurance Group compiles the records of accomplishment, compares the information in the records of

accomplishment to the established target metrics, and develops a report for Board management to provide the status of meeting performance goals.

To complete the records of accomplishment, Associate Technical Directors use data sources that include publicly available correspondence and staff issue reports and internally available information papers and group progress reports; these reports and papers document the activities performed by the Board's staff throughout the year. The Board makes its correspondence, staff issue reports, information papers, and group progress reports readily available to its staff, and the Board employs a robust review process, including factual accuracy checks, for its public reports and internal papers. Therefore, the review process ensures the accuracy of the data.

By tracking its progress toward meeting its performance goals on a quarterly basis, the Board is able to adjust its priorities and resources to meet performance goals.

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### **Financial Performance Overview**

As with many small agencies, the Board has adopted the “economies of scale” philosophy for obtaining needed administrative support services. The Board has negotiated interagency agreements with the Department of Treasury’s Bureau of the Fiscal Services and the United States Department of Agriculture’s (USDA) National Finance Center for personnel/payroll services, and USDA for accounting services on a fee-for-service basis. The Board’s financial statements were prepared in accordance with the accounting standards codified in the Statements of Federal Financial Accounting Standards (SFFAS) and OMB Circular A-136, *Financial Reporting Requirements*.

As of September 30, 2017, the financial position of the Board was sound with respect to having sufficient funds to meet program needs and the Board had adequate control of these funds in place to conduct its health and safety oversight mission and to ensure that obligations did not exceed budget authority.

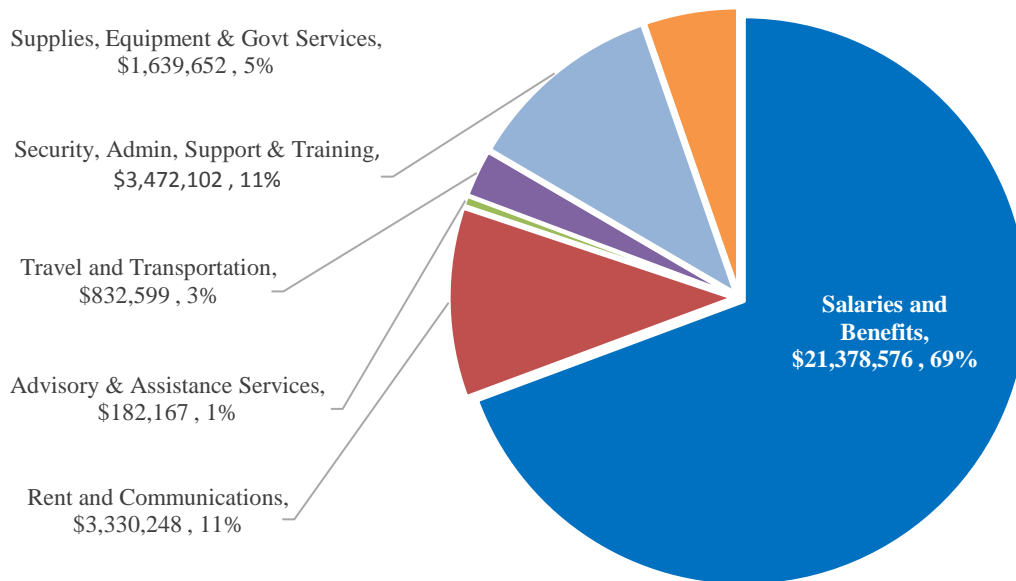
### **Sources of Funds**

The Board receives an annual appropriation for Salaries and Expenses, with the funds made available for two years, i.e., unobligated appropriations are available for obligation in the next year before expiring for new obligations. Available sources of funds in FY 2017 totaled \$34,377,053, comprised of \$30,872,000 in new budget authority and \$3,505,053 in available funds from both the prior year unobligated balance and available prior year recoveries and offsetting collections.

### Uses of Funds by Function

The Board incurred obligations of \$30,835,345 in FY 2017. As shown below, FY 2017 budgetary resources were primarily used to pay the salaries and benefits of the Board's employees, with most of the remaining resources dedicated to rent and the logistical support of the Board Members and employees as they conducted oversight operations.

FY 2017 Obligations = \$30,835,345



### Audit Results

The Board received an unmodified audit opinion on its FY 2017 financial statements. The auditors disclosed no instances of noncompliance with laws and regulations and identified no material internal control weaknesses.

A copy of the full audit report as provided to the Board can be found in Chapter 3 of this PAR.

### Limitation of the Financial Statements

The principal financial statements have been prepared to report the financial position and results of operations of the Board, pursuant to the requirements of the Accountability of Tax Dollars Act of 2002. While the statements have been prepared from the books and records of the Board in accordance with generally accepted accounting principles (GAAP) for Federal entities and the formats prescribed by OMB, the statements are in addition to the financial reports used to monitor and control budgetary resources which are prepared from the same books and records. The statements should be read with the realization that they are used for a component of the U.S. Government, a sovereign entity.

### **Financial Statement Highlights**

The Board's financial statements summarize the financial activity and financial position of the agency. The financial statements, footnotes, and required supplemental information appear in Chapter 3, *Auditors' Reports and Financial Statements*. Analysis of the principal statements follows:

#### **Analysis of the Balance Sheet**

	<b><u>FY 2017</u></b>	<b><u>FY 2016</u></b>
Total Assets	\$13,788,228	\$13,716,673
Total Liabilities	\$ 3,586,792	\$ 3,343,013
Net Position	\$10,201,436	\$10,373,660

The Board's assets were \$13,788,228 as of September 30, 2017, an increase of \$71,555 from the end of FY 2016. Its total liabilities and net position (which together equal total assets) were \$3,586,792 and \$10,201,436, respectively, as of the end of FY 2017, an increase of \$243,779 and a decrease of \$172,224, respectively, from the end of FY 2016. The Fund Balance with Treasury (FBWT) represents the Board's largest asset. This account represents appropriated funds maintained at the Treasury to pay for current liabilities and to finance authorized purchase commitments. An increase in the FBWT and a decrease in the Intragovernmental Advances and Prepayments was the primary reason for the slight increase in Total Assets. The increase in Total Assets offset by the increase in Total Liabilities resulted in the change in Net Position.

#### **Analysis of the Statement of Net Cost**

	<b><u>FY 2017</u></b>	<b><u>FY 2016</u></b>
Net Cost of Operations	\$31,447,587	\$29,672,359

The Board's net cost of operations for the year ended September 30, 2017, was \$31,447,587, an increase of \$1,775,228 or 5.7 percent from FY 2016 costs. The increase in net cost can primarily be attributed to higher personnel costs, retirement benefit distributions, and other personnel benefits, in addition to replacing the phone system.

#### **Analysis of the Statement of Changes in Net Position**

The Statement of Changes in Net Position reports the changes in net position during the reporting period. Net Position is affected by changes in its two components: Cumulative Results of Operations and Unexpended Appropriations. The Board's FY 2017 Net Position of \$10,201,436 remained relatively unchanged, decreasing slightly by \$172,224 or 1.7 percent from \$10,373,660 in FY 2016, due primarily to the increase in appropriations used.



## Analysis of the Statement of Budgetary Resources

The Statement of Budgetary Resources (SBR) shows the sources of budgetary resources and the status at the end of the period. It presents the relationship between budget authority and budget outlays, and reconciles obligations to total outlays. For FY 2017, the Board had Total Budgetary Resources of \$38,846,857, although not all of it was available for obligation as expired funds are included in both the prior year unobligated balance and much of the recoveries of prior year unpaid obligations. Total Budgetary Resources increased by \$1,589,155 or 4.1 percent from the FY 2016 amount of \$37,257,702, primarily due to the increase in new budget authority.

For FY 2017, the Statement of Budgetary Resources showed the Board incurred obligations of \$30,835,345, an increase of \$92,323 or 0.3 percent from FY 2016 obligations of \$30,743,022.

Net Outlays for FY 2017 were \$30,626,000, a \$2,173,464 or 7.1 percent increase from FY 2016 outlays of \$28,452,536. The increase in outlays is primarily be attributed to higher personnel costs, retirement benefit distributions, and other personnel benefits.

## Compliance with the Inspector General Act of 1978

The Board is required to file a report annually under the Inspector General Act of 1978, Pub. L. 95-452, Oct. 12, 1978, 92 Stat. 1101, codified at 5 U.S.C. Appendix 3. The statute mandates a report which:

- (A) States whether there has been established in the Federal entity an office that meets the requirements of this section;
- (B) Specifies the actions taken by the Federal entity otherwise to ensure that audits are conducted of its programs and operations in accordance with the standards for audit of governmental organizations, programs, activities, and functions issued by the Comptroller General of the United States, and includes a list of each audit report completed by a Federal or non-Federal auditor during the reporting period and a summary of any particularly significant findings; and
- (C) Summarizes any matters relating to the personnel, programs, and operations of the Federal entity referred to prosecutorial authorities, including a summary description of any preliminary investigation conducted by or at the request of the Federal entity concerning these matters, and the prosecutions and convictions which have resulted.

The Board reports as follows for Fiscal Year 2017:

- (A) 42 U.S.C §2286k provides that the Inspector General of the Nuclear Regulatory Commission (NRC) serves as the Inspector General for the Board.
- (B) The NRC Office of Inspector General (OIG) completed five audits on Board programs during FY 2017, including the Audit of DNFSB's Resident Inspector Program (DNFSB-17-A-05). The Board is implementing the two recommendations from this

audit to develop and implement processes to develop Resident Inspector candidates, and to determine Resident Inspector staffing decisions. The OIG also completed an Audit of DNFSB's Telework Program, (DNFSB-17-A-06), that resulted in the three recommendations for the Board to revise policy and operating procedures, and telework agreements, and recordkeeping for the Telework Program. The Board agrees with IG's recommendations from all the reports and plans to fully implement and close them out in FY 2018. The Digital Accountability and Transparency Act of 2014 Readiness Assessment for DNFSB (DNFSB-17-A-03) found that DNFSB, through USDA, demonstrated readiness to meet the requirements set forth in the DATA Act. Further, no recommendations were issued from the OIG's Audit of the Board's Financial Statements for Fiscal Years 2016 and 2015, (DNFSB-17-A-04), and the Independent Evaluation of DNFSB's Implementation of the Federal Information Security Modernization Act (FISMA) of 2014 for FY 2016, (DNFSB-17-A-02).

In regard to prior year audits, the Board has implemented and closed out all recommendations from the OIG's Audit of the Board's Information Security Program, (DNFSB-16-A-02), and closed five of the six recommendations from the Audit of DNFSB's Process for Developing, Implementing, and Updating Policy Guidance, (DNFSB-16-A-05). One of five recommendations from the OIG's Audit of DNFSB's Oversight of Nuclear Facility Design and Construction Projects (DNFSB-16-A-06) has been implemented and closed. Two recommendations from the Cybersecurity Act of 2015 Audit (DNFSB-16-A-07) are being implemented for closure in first quarter FY 2018.

(C) The Board referred no matters to prosecutorial authorities.

## **Systems, Controls and Legal Compliance**

### **Management Assurance and Internal Control**

This section provides information on the Board's compliance with FMFIA, as well as other management information, initiatives, and issues. FMFIA requires that agencies establish controls that provide reasonable assurance that: (1) obligations and costs comply with applicable law; (2) assets are safeguarded from waste, loss, unauthorized use, or misappropriation; and (3) revenues and expenditures are properly recorded and accounted for. It also requires the Board's Chairman to provide an assurance statement on the adequacy of internal controls. A summary of Management Assurances is included in Appendix B.

Internal control is the organization, policy, and procedures that help managers achieve intended results and safeguard the integrity of their programs. The Board evaluated its internal control program for the fiscal year ending September 30, 2017. Each Board Office Director (as well as all line managers) prepares an annual assurance assertion that identifies any control weaknesses requiring the attention of the Board's Executive Committee on Internal Control (ECIC). In addition to manager's knowledge of daily operations, these assertions are based on internal control activities such as internal and contractor assessments of work processes directed by the ECIC, as well as other activities such as financial statements audits and OIG audits and reports.

The ECIC consists of the General Manager, Deputy General Manager, Technical Director, General Counsel, and two Board Members. The OIG participates as an observer. The ECIC met to review the reasonable assurance assertions provided by the Office Directors and the reported internal control deficiencies. Based on the information provided, the ECIC reported to the Chairman that there were no internal control deficiencies serious enough to require reporting as a material weakness or non-compliance.

#### **Unmodified Statement of Assurance (FMFIA)**

The Defense Nuclear Facilities Safety Board's (DNFSB) management is responsible for managing risks and maintaining effective internal control to meet the objective of Section 2 of the Federal Managers' Financial Integrity Act (FMFIA). DNFSB conducted its assessment of risk and internal control in accordance with OMB Circular A-123, *Management's Responsibility for Enterprise Risk Management and Internal Control*. Based on the results of the assessment, DNFSB can provide reasonable assurance that internal control over operations, reporting, and compliance were operating effectively as of September 30, 2017.

\_\_\_\_\_  
 Sean Sullivan  
 Chairman

\_\_\_\_\_  
 Date

#### **Fraud Reduction and Data Analytics Act**

The Board acknowledges its responsibility for the design, implementation, and maintenance of effective internal control to prevent and detect fraud under the Fraud Reduction and Data Analytics Act of 2015. In FY 2017, the Board developed and provided the OMB with its Enterprise Risk Management report. There is no knowledge of any fraud or suspected fraud involving management or employees who have significant roles in internal control over financial reporting, or allegations of fraud or suspected fraud affecting the financial statements.

#### **Prompt Payment Act**

The *Prompt Payment Act*, as amended, requires Federal agencies to make timely payments to vendors for supplies and services, to pay interest penalties when payments are made after the due date, and to take cash discounts when they are economically justified. In FY 2017, the Board incurred minor interest penalties less than \$150.

**Improper Payments Information Act**

The Board is considered to be at low risk for improper payments since the functional payment areas are limited to traveler reimbursement, commercial vendors for supplies and services, and the payroll electronic funds transfer payments. The Board does not administer any entitlement, grant, or loan programs. During FY 2017, the Board's Government service providers made net total payments of \$30,626,000 on its behalf. Neither its service providers, nor the Board's finance staff, has identified any improper payments during this period.

**Federal Information Security Modernization Act**

The Federal Information Security Modernization Act (FISMA) requires an annual independent evaluation of an agency's information security program and practices to determine their effectiveness. In response to FY 2017 audit recommendations, the Board continues to update policies and information system contingency plans in order to be in continued compliance with the information security program.

**Government Charge Card Abuse Prevention Act**

The Government Charge Card Abuse Prevention Act requires that agencies ensure that appropriate policies and controls are in place or that corrective actions have been taken to mitigate the risk of fraud and inappropriate charge card practices. The Board participates in the federal travel card program and the purchase card program, and provides reasonable assurance that internal controls related to the government charge card programs are operating effectively, and no material weaknesses were identified.

**GAO Investigations and Reports**

In accordance with OMB Circular A-50, Audit Follow-up, ensuring prompt and proper resolution and implementation of audit recommendations is important to Board management. GAO report 15-181, *Defense Nuclear Facilities Safety Board: Improvements Needed to Strengthen Internal Control and Promote Transparency*, as revised March 2, 2015, contained six recommendations, one of which the Board disagreed with. The Board has taken actions to implement GAO's recommendations, two of which remain open. An update to close out the remaining recommendations was provided to GAO in FY 2017, and is pending GAO review. The report and the recommendation status can be found at <http://www.gao.gov/products/GAO-15-181>.

## Chapter 2 – Program Performance

### Introduction

This chapter presents detailed information on the performance of the Board in achieving its mission during FY 2017. It describes the Board's performance results and program achievements in accomplishing its strategic goals and objectives. The Board's *Annual Performance Plan for FY 2017* identified annual performance goals for each strategic objective.

The Board's contribution to the safety of DOE's defense nuclear activities derives from four basic types of activities. First, the Board evaluates DOE's policies and processes to ensure that fundamental safety requirements necessary to undertake highly hazardous operations exist at DOE. These reviews evaluate topics such as technical competence of DOE and contractor personnel, adequacy of safety requirements and guidance, and the presence of a strong safety culture. The Board plans this type of oversight in advance, and those plans are generally not affected by changes in DOE's plans or activities.

The second major type of safety oversight activity performed by the Board is the evaluation of actual hazardous activities and facilities in the field. These reviews focus on identifying the hazards attendant with DOE's mission activities and evaluating the controls put in place to mitigate those hazards. The Board plans for these types of reviews based on the risk, complexity, maturity, and significance of the activities underway or planned by DOE. However, unanticipated changes in DOE's plans or new, emergent information often change the priority of the Board's oversight in this area. The Board continuously seeks to be proactive and to focus DOE's attention on the most significant safety issues present in the defense nuclear complex at any given time. Therefore, because the priority of safety issues can change rapidly, the Board cannot always predict in advance what activities it will review or what safety outcomes it will ultimately achieve.

Third, the Board provides expert-level reviews of the safety implications of DOE's actions, decisions, and analyses. It is extremely important that the Board provide DOE with independent evaluations of the technical quality and safety impacts of DOE's decisions and actions. For example, well-intended actions by DOE managers can have significant unintended negative consequences if they are based on faulty, inadequate, or misunderstood information. The Board attempts to be proactive in conducting this type of review, but it is necessary that DOE first develop preliminary plans with sufficient detail to allow for a meaningful technical review. Therefore, it is not possible for the Board to plan all of its efforts in this important area explicitly in advance.

The last major type of oversight performed by the Board is the identification of new safety issues that were otherwise unknown in the DOE complex. Since, by definition, these safety issues would not have been addressed without the Board's efforts, this may be the area in which the Board has the largest impact on the safety of DOE's highly hazardous operations. However, by their very nature, it is impossible to plan for these emergent safety issues in advance. The

effectiveness of this type of safety oversight activity relies on the expertise of the Board and its staff.

The Board uses its Strategic Plan and Annual Performance Plan to ensure that its resources remain focused on the most significant safety challenges and the DOE activities that warrant the most external review. All of the Board's safety activities are closely tied to goals and objectives embodied in these plans. This approach gives the Board confidence that its staff (115 FTEs in FY 2017, including Board Members) and budget (approximately \$30.8 million in FY 2017 obligations) are dedicated to the highest risk activities in defense nuclear facilities. The Board's strategic plan may be viewed in its entirety on the Board's website at [www.dnfsb.gov](http://www.dnfsb.gov).

The information in this PAR is provided to Congress in the Board's statutorily required Annual Report, also available on the Board's website. There are slight differences between the two reports because the *Annual Report* covers calendar years (CY) rather than fiscal years. The Board's *Twenty-Eighth Annual Report to Congress* will be issued during the first quarter of CY 2018.

#### **Assessment of the Reliability and Completeness of Performance Data**

The sources used by the Board to measure its outcome are robust, varied, and independent. Documentation of accomplishments includes the Board's Annual Reports to Congress, correspondence to and from DOE, Board technical reports, and public meeting records. These documents are available for public review on the Board's website at [www.dnfsb.gov](http://www.dnfsb.gov).

#### **Comparison of Fiscal Year 2016 Actual Performance with Planned Performance**

The following pages provide detailed information comparing the Board's actual performance driving safety improvements at DOE to its plans for FY 2017, as well as prior-year trend data for FY 2014 through FY 2016.

**Strategic Goal 1 - Improve Safety of Operations**

Perform independent oversight of operational safety of DOE's defense nuclear facilities to develop analysis, advice, and recommendations that will inform the Secretary of Energy in providing adequate protection of public health and safety at such defense nuclear facilities.

**Strategic Objective 1.1**

Accomplish independent and timely oversight to strengthen safety of operations involved in the maintenance of the nuclear weapons stockpile and in weapons-related research, development, and testing.

DRAFT

**Performance Goal 1.1.1**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	Conduct effective oversight through formal, well-planned safety reviews of the NNSA defense nuclear facilities engaged in maintenance of the nuclear weapons stockpile and in weapons-related research, development, and testing.  Target: Number of reviews completed that comply with the Board’s new Technical Staff Instructions, Operating Procedures, and Internal Controls	Complete 10 reviews	Achieved  > 10 Reviews
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Conduct effective oversight through formal, well-planned safety reviews of the NNSA defense nuclear facilities engaged in maintenance of the nuclear weapons stockpile and in weapons-related research, development, and testing.	Complete 10 reviews	Achieved  > 10 Reviews
2015	Conduct effective oversight through formal, well-planned safety reviews of the NNSA defense nuclear facilities engaged in maintenance of the nuclear weapons stockpile and in weapons-related research, development, and testing.	Complete 10 reviews	Achieved  > 10 Reviews



2014	Conduct effective oversight through formal, well-planned safety reviews of the NNSA defense nuclear facilities engaged in maintenance of the nuclear weapons stockpile and in weapons-related research, development, and testing.	Complete 8 reviews	Achieved  > 8 Reviews
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**Discussion:**

The Board’s technical staff conducted the following reviews to meet the above objective of conducting effective oversight of NNSA defense nuclear facilities engaged in the maintenance of the nuclear weapons stockpile and in weapons-related research, development, and testing. The FY 2017 goal was to complete a minimum of ten safety oversight reviews. That goal was accomplished.

1. Potential Hazards Associated with Contaminated Cheesecloth Exposed to Nitric Acid Solutions, October 2016. Scope: Review the hazards posed by, and the National TRU (transuranic) Program's position on, waste containing cheesecloth exposed to nitric acid solution and whether this waste complies with the Waste Isolation Pilot Plant’s waste acceptance criteria. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
2. Los Alamos National Laboratory’s Software Quality Assurance Review, October 2016. Scope: Review the implementation of the material at risk (MAR) tracking software used for Area G, Technical Area 55, and the Weapons Engineering Tritium Facility (WETF). No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
3. Pantex Plant (Pantex) Safety Culture Improvement Review, November 2016. Scope: Review contractor efforts to implement safety culture improvements at Pantex as a follow-up to the Board’s public hearing in March 2013. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
4. Conduct of Operations and Maintenance Review at Sandia National Laboratories (SNL), December 2016. Scope: Review and evaluate the adequacy of the conduct of operations and maintenance programs. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
5. Device Assembly Facility (DAF) Functional Exercise Review, December 2016. Scope: Evaluate the effectiveness of the Nevada National Security Site’s emergency plans, procedures, and response at DAF. No new potential safety issues were

identified by this review that resulted in Board communication to the Department of Energy in FY17.

6. Review of the Safety Basis Strategy for the Extended Life Program at the Y-12 National Security Complex (Y-12), February 2017. Scope: Review the scope, priority, and actions required to execute the proposed risk reduction strategy and resolve any gaps in meeting applicable DOE requirements for the 9215 Complex and Building 9204-2E at Y-12. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
7. Review of the Operational Drill Program and Abnormal Operating Procedures for Lawrence Livermore National Laboratory (LLNL), July 2017. Scope: Evaluate performance and development of abnormal operating procedures, alarm response procedures, and the operational drill program at LLNL. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
8. Review of LANL Pyrochemistry Federal Readiness Assessment (FRA), June 2017. Scope: Evaluate the DOE's FRA for resumption of pyrochemistry operations after the laboratory's pause in operations of June of 2013. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
9. Review of Inappropriately Remediated Nitrate Salt-Bearing (RNS) Waste at LANL, February 2017. Scope: Assess the effectiveness of selected controls to mitigate the accident consequences while RNS waste is stored within the Area G containment enclosure. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
10. Operational Readiness Review at the U1a Complex at NNSS, August 2017. Scope: Evaluate the Contractor Operational Readiness Review (CORR) and review the CORR team's final report. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

Additionally, the following staff reviews were completed during FY 2017:

***LANL***

1. Operational Drill Program and Abnormal Operating Procedures Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
2. LANL RNS Waste Treatment Readiness Activities Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
3. LANL RNS Waste Treatment Safety Basis Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

4. Scoping Review of the Safety Basis for the Plutonium Facility at LANL. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
5. Nuclear Criticality Safety Program Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

***Pantex Plant***

1. W78 Special Tooling Upgrades Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
2. Fire Protection Systems Reliability Follow-up Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
3. Structural Infrastructure Follow-up Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
4. W84 Nuclear Explosive Operations Restart Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
5. Software Quality Assurance Implementation Weapon Response Code Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
6. W80 ALT 369 Readiness Activities Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

***Sandia National Laboratory (SNL)***

1. Pipe Overpack Container Testing Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
2. Mixed Waste Landfill Evaluation. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
3. Assessment of Chief of Defense Nuclear Safety's Biennial Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

***Lawrence Livermore National Laboratory (LLNL)***

1. Seismic Safety Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

***Nevada Nuclear Security Site (NNS)***

1. National Criticality Experiments Research Center Instrumentation and Control Follow-up Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
2. Review of the In-Service Inspection for DAF Gravel Gerties. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
3. U1a Complex Hazard Category 2 Operational Readiness Reviews. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
4. U1a Fire Protection and Life Safety Improvements for FY17 Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
5. DAF FSS Improvements Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

***Y-12 National Security Site (Y-12)***

1. Unresolved Safety Question Procedure Merger and Technical Safety Requirement Improvement Plan Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
2. Nuclear Facilities Electrical Modernization Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

In FY 2016, the Board's technical staff conducted more than ten reviews to meet performance goal 1.1.1. The technical staff conducted reviews at all NNSA sites. Specific reviews included reviews in the LANL Plutonium Facility (multiple nuclear operations restarts), Pantex (software quality assurance implementation), Y-12 Building 9212 (confinement ventilation), the NNS National Criticality Experiments Research Center (instrumentation and controls), and LLNL (probabilistic seismic hazard analysis).

In FY 2015, the Board's technical staff conducted more than ten reviews to meet performance goal 1.1.1. The technical staff conducted reviews at all NNSA sites including LANL Area G (Inappropriately Remediated Nitrate Salt-Bearing Waste Storage), LLNL (Conduct of Operations and Maintenance), Pantex (Emergency Management Program), and Y-12 National Security Complex (Highly Enriched Uranium Materials Facility DSA).

In FY 2014, the Board's technical staff conducted more than eight reviews to meet performance goal 1.1.1. The technical staff conducted reviews at all NNSA sites including LANL Area G (Basis for Interim Operation), NNS (Conduct of Operations and Maintenance), Pantex (Electrical Distribution System and Electrical Safety Program), and Y-12 National Security Complex (Criticality Safety).

**Performance Goal 1.1.2**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	Conduct effective oversight through formal, well-planned reviews of NNSA's nuclear explosive safety activities.  Target: Number of reviews completed that comply with the Board's new Technical Staff Instructions, Operating Procedures, and Internal Controls	Complete 3 reviews	Achieved  > 3 Reviews
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Conduct effective oversight through formal, well-planned reviews of NNSA's nuclear explosive safety activities.	Complete 3 reviews	Achieved  3 Reviews
2015	Conduct effective oversight through formal, well-planned reviews of NNSA's nuclear explosive safety activities.	Complete 3 reviews	Achieved  3 Reviews
2014	Conduct effective oversight through formal, well-planned reviews of NNSA's nuclear explosive safety activities.	Complete 3 reviews	Achieved  3 Reviews

**Discussion:**

The Board's technical staff conducted the following reviews to meet the above objective of effective oversight of NNSA's nuclear explosive safety (NES) activities. The FY 2017 goal was to complete a minimum of three safety oversight reviews. That goal was accomplished.

1. W78 Repair Unit NES Study, September 2017. Scope: Observed the meeting of the subject NES Study Group including the demonstrations and deliberations. The staff reviewed all input documents for the subject NES Study, the study report, the presentation of the study report to NNSA management, the NNSA management disposition of all NES inadequacies identified, final closure of the NES Study and authorization of nuclear explosive operations. No new potential safety issues were identified by this review that resulted in Board communication to the Department of

Energy in FY17. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

2. B83 Disassembly and Inspection Operational Safety Review, May 2017. Scope: Observed the meeting of the subject NES Study Group including the demonstrations and deliberations. Additionally, reviewed all input documents for the subject NES Study, the study report, the presentation of the study report to NNSA management, the NNSA management disposition of all NES inadequacies identified, final closure of the NES Study and the continued authorization of nuclear explosive operations. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
3. W80 NES Study, September 2017. Scope: Observed the meeting of the subject NES Study Group including the demonstrations and deliberations. Additionally, reviewed all input documents for the subject NES Study, the study report, the presentation of the study report to NNSA management, the NNSA management disposition of all NES inadequacies identified, final closure of the NES Study and authorization of nuclear explosive operations. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

Additionally, the following staff reviews were completed during FY 2017:

1. W76 NES Study, September 2017. Scope: Observed the meeting of the subject NES Study Group including the demonstrations and deliberations. Additionally, reviewed all input documents for the subject NES Study, the study report, the presentation of the study report to NNSA management, the NNSA management disposition of all NES inadequacies identified, final closure of the NES Study and authorization of nuclear explosive operations. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

In FY 2016, the Board's technical staff conducted three reviews to meet the above objective of effective oversight of NNSA's nuclear explosive safety activities. The technical staff observed a W78 Special Tooling NCE, a W87 NES Study, and a PT-3854 Electrical Tester Study.

In FY 2015, the Board's technical staff conducted three reviews to meet the above objective of effective oversight of NNSA's nuclear explosive safety activities. The technical staff observed a W80 and B61 A/N Can Electrostatic Discharge NCE, a W87 Tester and W76 Isolator NCE, and UV/IR System Upgrade NCE.

In FY 2014, the Board's technical staff conducted three reviews to meet the above objective of effective oversight of NNSA's nuclear explosive safety activities. The technical staff observed an Onsite Transportation and Staging NES Master Study review, a review of the W88 NES Operational Safety Review, and an Approved Equipment Program NES Master Study Module II (Special Tooling) review.

**Performance Goal 1.1.3**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	<p>Notify NNSA of potential safety issues at NNSA defense nuclear facilities and in nuclear weapons operations.</p> <p>Target: Percentage of Board letters regarding potential safety deficiencies sent to NNSA (for which the Board receives a response in the target year) that result in an NNSA assessment of the safety issues.</p>	90% (measured collectively with goals 1.2.2, 2.2.2, 3.2.2)	<p>Collective Result: Not applicable.</p> <p>There was no Board correspondence to NNSA regarding potential new safety issues in FY 2017.</p> <p>Goal 1.1.3 Result: Not applicable, the correspondence to NNSA focused on management of previously accepted safety deficiencies.</p>
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Notify NNSA of potential safety issues at NNSA defense nuclear facilities and in nuclear weapons operations.	90% (measured collectively with goals 1.2.2, 2.2.2, 3.2.2)	<p>Achieved</p> <p>100% of letters resulted in DOE/NNSA assessment of the safety issue</p>
2015	Notify NNSA of potential safety issues at NNSA defense nuclear facilities and in nuclear weapons operations.	85% of letters result in positive NNSA response	<p>Achieved</p> <p>100% of letters resulted in positive NNSA response</p>

2014	Notify NNSA of potential safety issues at NNSA defense nuclear facilities and in nuclear weapons operations.	80% of letters result in positive NNSA response	Achieved  100% of letters resulted in positive NNSA response
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**Discussion:**

The metric used to evaluate this goal is limited to reviews that resulted in official Board correspondence to DOE/NNSA. This goal focuses on those issues that were evaluated as significant enough to merit correspondence. Board correspondence can be in the form of a letter that does not request a written response from DOE/NNSA, or in the form of a letter with a reporting requirement or a Board recommendation, both of which require a written response. The correspondence from FY 2017 issued to NNSA focused on the management and follow-up of previously identified safety deficiencies at NNSA defense nuclear facilities and in nuclear weapons operations. There was no correspondence with NNSA regarding potential new safety concerns in FY2017. Those correspondences that were submitted are listed below:

1. Invitation to Public Hearing Regarding Emergency Preparedness and Response. Board correspondence date: July 27, 2017. DOE/NNSA response date: The hearing was accepted and the Board subsequently changed the hearing to a meeting. DOE/NNSA completed assessment of the safety issue: None required.
2. Assessment of the Progress of Recommendation 2015-1. Board correspondence date: July 25, 2017. DOE/NNSA response date: None required. DOE/NNSA completed assessment of the safety issue: None required.
3. Determination to Forego the Submission of Draft Recommendation 2017-1. Board correspondence date: July 13, 2017. DOE/NNSA response date: None required. DOE/NNSA completed assessment of the safety issue: None required.
4. Termination of Annual Reporting Requirements Regarding the Safety of the 9212 Complex at Y-12. Board correspondence date: May 11, 2017. DOE/NNSA response date: None required. This letter informed DOE/NNSA of the Board's decision to terminate the reporting requirements regarding the safety of the 9212 Complex, which had been established by a reporting requirement levied March 13, 2007. The recently initiated extended life program was determined to be an adequate substitute. DOE/NNSA completed assessment of the safety issue: None required.
5. Closure of Recommendation 2009-2. Board correspondence date: January 3, 2017. DOE/NNSA response date: None required. DOE/NNSA completed assessment of the safety issue: None required.
6. Report No Issues with CD 2/3 Milestones of Phase 1 of the Plutonium Equipment Installation Subproject at LANL. Board correspondence date: November 18, 2016.



DOE/NNSA response date: None required. DOE/NNSA completed assessment of the safety issue: None required.

In FY 2016, FY 2015 and FY 2014, this performance goal was used to track NNSA positive response to Board correspondence. In each year, the correspondence issued to NNSA on potential safety issues at NNSA defense nuclear facilities and in nuclear weapons operations included four, five, and five specific items of correspondence, respectively. The determined positive response rate from NNSA was 100% in FY 2016 and 80% in both FY 2015 and FY 2014. Note that in FY 2016, the Board changed the target measure for this performance goal to a collective percentage with additional Board performance goals.

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**Performance Goal 1.1.4**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	Maintain a near-continuous oversight presence at each of the following sites: LANL, Y-12, and Pantex.  Target: Number of days per year that a resident inspector or a member of the Board's technical staff conducts safety oversight at each site (LANL, Y-12, and Pantex).	220 days	Achieved  Coverage exceeded the target of 220 days
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Maintain a near-continuous oversight presence at each of the following sites: LANL, Y-12, and Pantex.	220 days	Achieved  Coverage exceeded the target of 220 days
2015	Maintain a near-continuous oversight presence at each of the following sites: LANL, Y-12, and Pantex.	220 days	Not Achieved  Coverage at Pantex less than 220 days
2014	Maintain a near-continuous oversight presence at each of the following sites: LANL, Y-12, and Pantex.	220 days	Achieved  Coverage exceeded the target of 220 days

**Discussion:**

The Board's resident inspectors and technical staff members conducted safety oversight and maintained a near-continuous oversight presence at LANL, Y-12, and Pantex during FY 2017.

- At LANL, the Board's resident inspectors and technical staff members conducted 226 days of safety oversight, which exceeds the performance goal of 220 days.
- At Y-12, the Board's resident inspectors and technical staff members conducted 236 days of safety oversight, which exceeds the performance goal of 220 days.
- At Pantex, the Board's resident inspector and technical staff members conducted 235 days of safety oversight, which exceeds the performance goal of 220 days.

In FY 2016, the Board's resident inspectors and technical staff members conducted safety oversight and maintained a near-continuous oversight presence in excess of 220 days at each

LANL, Y-12, and Pantex. In FY 2015, coverage at LANL and Y-12 exceeded 220 days, but only 218 days of coverage was conducted at Pantex due to the unexpected departure of a Board's resident inspector stationed at that site. In FY 2014, coverage at all three site exceeded 220 days.

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**Strategic Objective 1.2**

Accomplish independent and timely oversight to strengthen safety of operations in cleanup of legacy defense nuclear wastes and facilities.

**Performance Goal 1.2.1**

Fiscal Year	Goal Statement and Target	Target Measure, Milestone, or Deliverable	Result
2017	Conduct effective oversight through formal, well-planned safety reviews at DOE-EM operating defense nuclear facilities and facilities undergoing decommissioning and decontamination.  Target: Number of reviews completed that comply with the Board’s new Technical Staff Instructions, Operating Procedures, and Internal Control.	Complete 10 reviews	Achieved  > 10 Reviews
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Conduct effective oversight through formal, well-planned safety reviews at DOE-EM operating defense nuclear facilities and facilities undergoing decommissioning and decontamination.	Complete 10 reviews	Achieved  > 10 Reviews
2015	Conduct effective oversight through formal, well-planned safety reviews at DOE-EM operating defense nuclear facilities and facilities undergoing decommissioning and decontamination.	Complete 10 reviews	Achieved  > 10 Reviews
2014	Conduct effective oversight through formal, well-planned safety reviews at DOE-EM operating defense nuclear facilities and facilities undergoing decommissioning and decontamination.	Complete 8 reviews	Achieved  8 Reviews

**Discussion:**

The Board's technical staff conducted the following reviews to meet the above objective of conducting effective oversight of DOE-Office of Environmental Management (EM) facilities. The FY 2017 goal was to complete a minimum of ten oversight reviews. That goal was accomplished.

1. Waste Isolation Pilot Plant (WIPP) – Maintenance Program, October 2016. Scope: Review changes made to the WIPP maintenance program in response to 2014 events. Lines of inquiry focused on the maintenance backlog and prioritization, tracking and trending of maintenance and equipment, and the development and execution of work control documents and procedures. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
2. WIPP – Contractor Operational Readiness Review, October 2016. Scope: Review contractor operational readiness review (ORR)'s criteria review and approach documents (CRAD) to assess the adequacy of the scope of the ORR. Additionally, observe the execution of the ORR to assess the ability of WIPP to safely re-start disposal operations. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
3. WIPP – Fire Protection Program, November 2016. Scope: Review revised WIPP Fire Protection Program, including both contractor and DOE oversight components, as implemented in response to corrective actions from the DOE Accident Evaluation Board reports. Additionally, evaluate the program for consistency with the revision to the WIPP documented safety analysis (DSA). No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
4. WIPP – Corrective Action Plan Review, November 2016. Scope: Analyze evidence packages for the corrections actions taken by Nuclear Waste Partnership, LLC, the DOE's Carlsbad Field Office and DOE Headquarters in response to the three Accident Investigation Board reports written following the fire and radiological release events in February 2014. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
5. Idaho National Laboratory (INL) – Radioactive Waste Management Complex (RWMC) Safety Basis Review, December 2016. Scope: Review safety basis of the RWMC at INL and focused on assumptions used in the material at risk (MAR) statistical analysis, the safety basis methodology, criticality safety, and document configuration control. The Idaho Cleanup Project contractor, Fluor Idaho, LLC (Fluor) declared a Potential Inadequacy in the Safety Analysis for RWMC and two other Idaho Cleanup Project facilities as a result of the staff's questions regarding the MAR statistical analysis. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

6. WIPP – DOE ORR, April 2017. Scope: Observe conduct of DOE’s ORR for restart of transuranic waste disposal operations at WIPP. Additionally, review and assess the adequacy of closure packages for select DOE ORR team pre- and post-start findings. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
7. Hanford – Hanford Tanks Farm’s Cognizant System Engineer and Maintenance Program Review, June 2017. Scope: Review effectiveness of the Hanford Tank Farm’s maintenance and engineering programs to ensure that credited safety-related structures, systems, and components (SSC) will function when needed and as designed. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
8. Savannah River Site (SRS) – Savannah River National Lab (SRNL) Safety Basis Review, June 2017. Scope: Review actions that Savannah River Nuclear Solutions, LLC (SRNS) took to address concerns raised during a prior Board’s staff review of a proposed major revision to the SRNL DSA. Focus on accident scenarios with high mitigated radiological consequences, the designation of specific administrative controls, and the downgrade of replacement fire water tanks and pumps. New potential safety issue(s) was identified by this review that resulted in Board communication to the Department of Energy in FY17. September 13, 2017, Board letter regarding the designation of specific administrative controls (SACs) at the Savannah River Site (SRS) for DOE’s use as appropriate.
9. SRS – F-Area Complex Emergency Preparedness Exercise, June 2017. Scope: Observe the F-Area Complex emergency preparedness exercise. Observations focused on the facility and emergency response personnel at the scene of the incident, the Incident Command Post, the SRS Operations Center and the Technical Support Room to assess the performance of personnel, recovery planning, and control of the exercise. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
10. WIPP – Potential Inadequacy in the Safety Analysis Determination (PISDA) for a Large Roof Fall, June 2017. Scope: Review documented PISDA for a roof fall that is larger than the one assumed in the WIPP DSA. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

Additionally, the following staff reviews were completed during FY 2017:

1. SRS – K-Area Complex (KAC) Plutonium Down Blend Review, August 2017. Scope: Review changes to the KAC DSA in support of the new plutonium oxide down blend mission. Focus on the consideration and justification for acceptance of risk in the approved DSA, the reliability of administrative controls following a seismic event, and the protection of nuclear criticality safety evaluation assumptions.

2. Oak Ridge National Laboratory (ORNL) – Transuranic Waste Processing Center (TWPC) DSA Review, August 2017. Scope: Review TWPC DSA, with a focus on evaluating the hazard analysis, associated accident scenarios and controls selections. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
3. Hanford – Hanford Tank Farms Wireless Safety Instrumented System Upgrades Review, August 2017. Scope: Review recent upgrades on instrumentation and controls at Hanford Tank Farms to incorporate the use of wireless communications to transmit safety significant process parameters to a centralized location. Focus on ensuring the upgrades were designed and installed in accordance with applicable requirements for safety-related SSCs. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

In FY 2016, the Board's technical staff conducted fourteen reviews to meet the above objective of conducting effective oversight of DOE-EM facilities. The technical staff conducted reviews at the Hanford site (5), SRS (3), INL (2), ORNL (1), and WIPP (3). In FY 2015, the Board's technical staff conducted twenty reviews to meet the above objective of conducting effective oversight of DOE-EM facilities. The technical staff conducted reviews at the Hanford site (6), SRS (3), INL (5), and WIPP (6). In FY 2014, the Board's technical staff conducted eight reviews to meet the above objective of conducting effective oversight of DOE-EM facilities. The technical staff conducted reviews at the Hanford site (3), SRS (3), INL (1), and WIPP (1).

**Performance Goal 1.2.2**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	<p>Notify DOE of potential safety issues at DOE defense nuclear facilities and in nuclear waste remediation operations.</p> <p>Target: Percentage of Board letters regarding potential safety deficiencies sent to DOE (for which the Board receives a positive response in the target year) that result in a DOE assessment of the safety issue.</p>	90% (measured collectively with goals 1.1.3, 2.2.2, 3.2.2)	<p>Collective Result: Not applicable.</p> <p>There was one Board letter notifying DOE of a potential new safety issue in FY2017. The letter was provided for DOE’s use as appropriate.</p> <p>Goal 1.2.2 Result: Not applicable; there have been no responses received from DOE on letters sent in FY17.</p>
<b>Actual Results for Preceding Fiscal Years</b>			
2016	<p>Notify DOE of potential safety issues at DOE defense nuclear facilities and in nuclear waste remediation operations.</p>	90% (measured collectively with goals 1.1.3, 2.2.2, 3.2.2)	<p>Achieved</p> <p>100% of letters resulted in DOE/NNSA assessment of the safety issue</p>
2015	<p>Notify DOE of potential safety issues at DOE defense nuclear facilities and in nuclear waste remediation operations.</p>	85% of letters result in positive DOE response	<p>Achieved</p> <p>100% of letters resulted in positive DOE response</p>



2014	Notify DOE of potential safety issues at DOE defense nuclear facilities and in nuclear waste remediation operations.	80% of letters result in positive DOE response	Achieved  100% of letters resulted in positive DOE response
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**Discussion:**

The metric used to evaluate this goal is limited to reviews that resulted in official Board correspondence to DOE. This goal focuses on those issues that were evaluated as significant enough to merit correspondence. Board correspondence can be in the form of a letter that does not request a written response from DOE, or in the form of a letter with a reporting requirement or a Board recommendation, both of which require a written response. The Board sent one letter to DOE on September 13, 2017 regarding the designation and use of specific administrative controls at the SRS, for DOE’s use and information, and did not request a response. Therefore, the performance goal was not applicable in FY 2017, as the Board requested no responses for correspondence issued to DOE.

In FY 2016, FY 2015 and FY 2014, this performance goal was used to track DOE positive response to Board correspondence. The Board issued DOE three pieces of correspondence on potential safety issues at DOE defense nuclear facilities and in nuclear waste remediation operations during FY 2016, four during FY 2015 and four during FY 2014. All eleven pieces of correspondence were assessed to result in a positive response. Note that in FY 2016, the Board changed the target measure for this performance goal to a collective percentage with additional Board performance goals.

**Performance Goal 1.2.3**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	Maintain a near-continuous oversight presence at the Hanford Site and SRS.  Target: Number of days per year that a resident inspector or a member of the Board's technical staff conducts safety oversight at each site (Hanford Site and SRS).	220 days	Achieved  Coverage met or exceeded the target of 220 days.
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Maintain a near-continuous oversight presence at the Hanford Site and SRS.	220 days	Achieved  Coverage exceeded the target of 220 days
2015	Maintain a near-continuous oversight presence at the Hanford Site and SRS.	220 days	Achieved  Coverage exceeded the target of 220 days
2014	Maintain a near-continuous oversight presence at the Hanford Site and SRS.	220 days	Achieved  Coverage exceeded the target of 220 days

**Discussion:**

The Board's resident inspectors and technical staff members conducted safety oversight and maintained a near-continuous oversight presence at Hanford and SRS during FY 2017.

- At Hanford, the Board's resident inspectors and technical staff members conducted 241 days of safety oversight at the end of FY 2017, which exceeded the performance goal of 220 days.
- At SRS, the Board's resident inspectors and technical staff members conducted 220 days of safety oversight at the end of FY 2017, which met the performance goal of 220 days.

In FY 2016, FY 2015 and FY 2014, coverage at each site exceeded the target of 220 days.

**Strategic Goal 2 - Strengthen Safety Standards**

Recommend and promote effective safety standards for the Secretary of Energy to apply in providing adequate protection of public health and safety at such defense nuclear facilities.

**Strategic Objective 2.1**

Accomplish independent oversight to strengthen the development, implementation, and maintenance of DOE regulations, requirements, and guidance for providing adequate protection of public health and safety at defense nuclear facilities.

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**Performance Goal 2.1.1**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	Strengthen DOE’s Directives by providing timely oversight and comments to improve revised and newly issued DOE Directives (as noted on the list of “Directives of Interest to the Board”).  Target: Percentage of DOE Directives entering the review-comment period for which the Board provides comments on or before the Review Date Deadline.	95%	Achieved  100%
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Strengthen DOE’s Directives by providing timely oversight and comments to improve revised and newly issued DOE Directives (as noted on the list of “Directives of Interest to the Board”).	95%	Achieved  100%
2015	Strengthen DOE’s Directives by providing timely oversight and comments to improve revised and newly issued DOE Directives (as noted on the list of “Orders of Interest to the Board”).	95%	Achieved  100%
2014	Strengthen DOE’s Directives by providing timely oversight and comments to improve revised and newly issued DOE Directives (as noted on the list of “Orders of Interest to the Board”).	90%	Not Achieved  74%

**Discussion:**

During FY 2017, the Board's staff completed 27 reviews of 25 DOE directives with all of the reviews completed by the Review Date Deadline.

During FY 2016, the Board's staff completed 52 reviews of 59 DOE directives with all of the reviews completed by the Review Date Deadline.

During FY 2015, the Board's staff completed 39 reviews of 35 DOE directives with all of the reviews completed by the Review Date Deadline.

During FY 2014, the Board's staff completed reviews of 27 DOE directives, with 20 of the reviews (74 percent) completed by the Review Date Deadline. The timeliness of Board reviews of DOE Standards improved significantly after the implementation of new internal control processes at mid-year. During the 3<sup>rd</sup> and 4<sup>th</sup> quarters of the fiscal year, the timeliness response rate to DOE from the Board was nearly 100 percent.

**Performance Goal 2.1.2**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	Conduct effective oversight of the implementation of DOE Directives (as noted on the list of “Directives of Interest to the Board”) through formal, well-planned safety reviews of DOE defense nuclear facilities.  Target: Number of reviews of the implementation of DOE Directives completed that comply with the new Technical Staff Instructions, Operating Procedures, and Internal Controls.	Complete 3 reviews	Achieved  > 3 Reviews
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Conduct effective oversight of the implementation of DOE Directives (as noted on the list of “Directives of Interest to the Board”) through formal, well-planned safety reviews of DOE defense nuclear facilities.	Complete 3 reviews	Achieved  > 3 Reviews
2015	Conduct effective oversight of the implementation of DOE Directives (as noted on the list of “Directives of Interest to the Board”) through formal, well-planned safety reviews of DOE defense nuclear facilities.	Complete 3 reviews	Achieved  3 Reviews
2014	Conduct effective oversight of the implementation of DOE Directives (as noted on the list of “Orders of Interest to the Board”) through formal, well-planned safety reviews at DOE defense nuclear facilities.	Complete 2 reviews	Achieved  2 Reviews

**Discussion:**

In FY 2017, three reviews were completed to provide independent oversight to strengthen the development, implementation, and maintenance of DOE regulations, requirements, and guidance for providing adequate protection of public health and safety at defense nuclear facilities. These reviews covered the following topics:

1. Pantex Plant February 2017 Site-wide, Full-Scale Emergency Exercise, April 20, 2017. Scope: Review of Pantex Plant accident scenarios, exercise execution and control, emergency communications, and facility response. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
2. NNSS May 2017 Site-wide, Full-Participation Emergency Exercise, June 9, 2017. Scope: Review of NNSS accident scenarios, exercise execution and control, emergency communications, and facility response. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
3. Annual Emergency Exercise Review at LLNL, June 19, 2017. Scope: Review of LLNL accident scenarios, exercise execution and control, emergency communications, and facility response. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

Additionally, the following staff reviews were completed during FY 2017:

1. Oak Ridge Reservation Multi-site Exercise, July 11, 2017. Scope: Review of accident scenarios, exercise execution and control, emergency communications, and facility response at the Oak Ridge Reservation. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
2. DOE Order 232.2A, Occurrence Reporting and Processing of Operations Information, May 10, 2017. Scope: Review of the deletion of certain safety-related occurrence reporting requirements from DOE Order 232.2A. New potential safety issue(s) was identified by this review that resulted in Board communication to the Department of Energy in FY17. May 10, 2017, Board letter establishing a reporting requirement for DOE to provide a report regarding any supplemental actions planned by line management to ensure safety oversight is not degraded at defense nuclear facilities prior to implementing DOE Order 232.2A, Occurrence Reporting and Processing of Operations Information.

In FY 2016, five such reviews were completed covering the following topics: 1) NNSS Quality Assurance (QA); 2) Emergency Exercise Observation at LANL; 3) Emergency Exercise Observations at INL; 4) Additional Emergency Exercise Observations at LANL; and 5) Emergency Exercise Observation at Hanford.

In FY 2015, three such reviews were completed covering the following topics: 1) Review of the SQA in a Packaging and Transportation Computer Code; 2) Emergent Review of the RadCalc 4.1.1 Safety Calculation Advisory; and 3) SQA Audit of Boston Government Services.

In FY 2014, two such reviews were completed covering the following topics: SNL Conduct of Operations and Maintenance, and SRS SWPF Quality Assurance Program.

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**Strategic Objective 2.2**

Accomplish independent oversight to improve the establishment and implementation of safety programs at defense nuclear facilities.

**Performance Goal 2.2.1**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	<p>Conduct effective oversight through formal, well-planned reviews of DOE’s establishment and implementation of safety programs at defense nuclear facilities.</p> <p>Target: Number of reviews completed that comply with the Board’s new Technical Staff Instructions, Operating Procedures, and Internal Controls.</p>	Complete 4 reviews	Achieved  4 Reviews
<b>Actual Results for Preceding Fiscal Years</b>			
2016	<p>Conduct effective oversight through formal, well-planned reviews of DOE’s establishment and implementation of safety programs at defense nuclear facilities.</p>	Complete 4 reviews	Achieved  4 Reviews
2015	<p>Conduct effective oversight through formal, well-planned reviews of DOE’s establishment and implementation of safety programs at defense nuclear facilities.</p>	Complete 4 reviews	Achieved  4 Reviews
2014	<p>Conduct effective oversight through formal, well-planned reviews of DOE’s establishment and implementation of safety programs at defense nuclear facilities.</p>	Complete 3 reviews	Achieved  3 Reviews

**Discussion:**

In FY 2017, four reviews were completed to evaluate the establishment and implementation of safety programs at defense nuclear facilities. These reviews covered the following topics:

1. DOE Response to Annual Criticality Safety Briefing Agenda, October 6, 2016. Scope: Review DOE's response to the Board's questions on ten nuclear criticality safety topics that span the DOE complex. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
2. Annual Nuclear Criticality Safety Program Report for the Defense Nuclear Facilities, May 4, 2017. Scope: Review DOE's annual nuclear criticality safety metrics for FY 2016. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
3. Radiation Protection Program Review at the DOE's Waste Isolation Pilot Plant, June 19, 2017. Scope: Review radiation protection program implementation at WIPP to support the restart of waste handling and emplacement operations. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
4. Complex Wide Review of Transportation Safety Documents, July 21, 2017. Scope: Review and compare transportation safety documents at LANL, ORNL, Hanford Site, LLNL, and NNSS. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

In FY 2016, four such reviews were completed covering the following topics: 1) Safety Culture Improvement Action at the Hanford WTP; 2) 2015 Annual Site Emergency Exercise SNL; 3) LANL Emergency Preparedness and Response Program; and 4) Emergency Exercise Observations at Y-12 National Security Complex.

In FY 2015, four such reviews were completed covering the following topics: 1) Follow-on Review of LANL Work Planning and Control; 2) Review actions associated with safety culture assessments at WTP in Hanford, Washington; 3) Emergency Preparedness and Response at the Pantex Plant; and 4) DOE's Deliverables on Sustainment Tools for Recommendation 2011-1.

In FY 2014, three such reviews were completed covering the following topics: 1) Hanford Plutonium Finishing Plant Activity-Level Work Planning and Control; 2) Savannah River Nuclear Solutions Activity-Level Work Planning and Control; and 3) DOE Headquarters Emergency Response Function.

**Performance Goal 2.2.2**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	Notify DOE of potential actions to improve establishment and implementation of safety programs at DOE defense nuclear facilities.  Target: Percentage of Board letters regarding potential safety deficiencies sent to DOE (for which the Board receives a response in the target year) that result in a DOE assessment of the safety issues.	90% (measured collectively with goals 1.1.3, 1.2.2, 3.2.2)	Collective Result: Not applicable.  There was no Board correspondence to DOE regarding potential new issues with safety programs in FY 2017.  Goal 2.2.2 Result: Not applicable; no responses received from DOE on letters sent in FY17.
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Notify DOE of potential actions to improve establishment and implementation of safety programs at DOE defense nuclear facilities.	90% (measured collectively with goals 1.1.3, 1.2.2, 3.2.2)	Achieved  100% of letters resulted in DOE/NNSA assessment of the safety issue
2015	Notify DOE of potential actions to improve establishment and implementation of safety programs at DOE defense nuclear facilities.	85% of letters result in positive DOE response	Achieved  100% of letters resulted in positive DOE response
2014	Notify DOE of potential actions to improve establishment and implementation of safety programs at DOE defense nuclear facilities.	80% of letters result in positive DOE response	Achieved  100% of letters resulted in positive DOE response.

**Discussion:**

The metric used to evaluate this goal is limited to reviews that resulted in official Board correspondence to DOE. This goal focuses on those issues that were evaluated as significant enough to merit correspondence. Board correspondence can be in the form of a letter that does not request a written response from DOE, or in the form of a letter with a reporting requirement or a Board recommendation, both of which require a written response. There were no responses from DOE during FY 2017 for correspondence issued to DOE regarding actions to improve establishment and implementation of safety programs. However, there was one Board letter notifying DOE of potential new safety issues in FY2017 associated with occurrence reporting and processing of operations information at defense nuclear facilities. The letter established a reporting requirement for DOE to provide a report regarding any supplemental actions planned by line management to ensure safety oversight is not degraded at defense nuclear facilities prior to implementing DOE Order 232.2A, Occurrence Reporting and Processing of Operations Information.”

In FY 2016, FY 2015 and FY 2014, this performance goal was used to track DOE positive response to Board correspondence. The Board issued DOE two pieces of correspondence regarding actions to improve establishment and implementation of safety programs during FY 2016, four during FY 2015, and three during FY 2014. All nine pieces of correspondence were assessed to result in a positive response. Note that in FY 2016, the Board changed the target measure for this performance goal to a collective percentage with additional Board performance goals.

**Strategic Goal 3 - Strengthen Safety in Design**

Recommend and promote safety in design for new and modified defense nuclear facilities.

**Strategic Objective 3.1**

Accomplish independent oversight to strengthen the use of approved nuclear standards in the design and construction of defense nuclear facilities and major modifications to existing facilities.

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**Performance Goal 3.1.1**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	<p>Promote and strengthen the early integration of safety into the design and construction of DOE’s defense nuclear facilities by reviewing the adequacy of safety design basis documents at major project Critical Decision milestones.</p> <p>Target: Percentage of significant Hazard Category 2 projects achieving a Critical Decision milestone (CD-1, 2, 3, 4) for which the Board’s technical staff completes and documents in a staff report a review of the associated safety design basis document.</p>	100%	<p>Achieved</p> <p>100% Complete</p>
<b>Actual Results for Preceding Fiscal Years</b>			
2016	<p>Promote and strengthen the early integration of safety into the design and construction of DOE’s defense nuclear facilities by reviewing the adequacy of safety design basis documents at major project Critical Decision milestones.</p>	100%	<p>Achieved</p> <p>100% Complete</p>
2015	<p>Promote and strengthen the early integration of safety into the design and construction of DOE’s defense nuclear facilities by reviewing the adequacy of safety design basis documents at major project Critical Decision milestones.</p>	100%	<p>Achieved</p> <p>100% Complete</p>

2014	Promote and strengthen the early integration of safety into the design and construction of DOE’s defense nuclear facilities by reviewing the adequacy of safety design basis documents at major project Critical Decision milestones.	100%	Achieved  100% Complete
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**Discussion:**

In FY 2017, two reviews of the safety design basis documents for significant Hazard Category 2 projects that were approaching a Critical Decision (CD) milestone were completed. This corresponds to an actual result of 100 percent. These project reviews covered the following:

1. LANL Plutonium Facility-4 Equipment Installation Phase 1 (PEI1) Subproject [DOE Project # 04-D-125-05] achieved CD-2/3 milestone in October 2016. The Board issued a Project Letter on this project in November 2016.
2. Y-12 Uranium Processing Facility [DOE Project # 06-D-141] expects to achieve CD-2/3 approval during fiscal year 2018. The Board issued a Project Letter on this project in June 2017.

During FY 2016, the Board’s technical staff completed and documented reviews of the safety design basis documents for four significant Hazard Category 2 projects that were approaching a CD milestone. This corresponded to an actual result of 100%. These projects include one that achieved CD-1 preliminary design milestone in December 2015 (WIPP Underground Ventilation System [DOE Project # 15-D-411] and one that (at the time) expected to achieve CD-2/3 approval date during fiscal year 2017 (LANL Plutonium Facility-4 Equipment Installation Phase 1 (PEI1) Subproject [DOE Project # 04-D-125-05]). There were also two projects within the LANL complex that completed reviews on safety design basis documents in anticipation of the CD-4 project completion milestone for each. The projects with their corresponding documents were as follows: Transuranic Waste Facility (DOE Project # 12-D-301-02) DSA review and the Transuranic Liquid Waste Treatment Facility (DOE Project # 07-D-220-03) PSDR review.

During FY 2015, the Board’s technical staff completed and documented reviews of the safety design basis document for three significant Hazard Category 2 projects that were approaching a CD milestone which corresponded to an actual result of 100%. These projects include two that achieved the CD-1 preliminary design milestone: Low Activity Waste Pretreatment System and the Electrorefining piece of the Y-12 Metal Purification Process, a major modification to an existing Hazard Category 2 defense nuclear facility. There were two projects that achieved the CD-4 project completion milestone: the Waste Solidification Building and the SRS Purification Area Vault Project. In the case of the Waste Solidification Building, an oversight review was not necessary as this project immediately entered cold standby and DOE did not produce an approved DSA.

During FY 2014, the Board's technical staff completed and documented reviews of the safety design basis document for three significant Hazard Category 2 projects that were approaching a CD milestone which corresponded to an actual result of 100%. These projects included one that achieved the CD-1 preliminary design milestone in October 2014 (Sludge Processing Facility Buildouts), and two that achieved the CD-3 final design milestone during FY 2014 (Transuranic Waste Facility and KW Basin Sludge Removal Project).

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**Performance Goal 3.1.2**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	Provide early notification to DOE of safety issues at DOE design and construction projects by issuing project letters within 60 days of major Critical Decision milestones to document the Board’s assessment of the project’s safety strategy and readiness to proceed with the next project stage.  Target: The average number of days for the Board to issue a project letter to DOE for Hazard Category 2 projects achieving a Critical Decision milestone (CD-1, 2, 3, 4).	Within 60 days	Achieved  Average of <60 days (one letter issued at 18 days and one letter significantly ahead of the CD milestone approval)
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Provide early notification to DOE of safety issues at DOE design and construction projects by issuing project letters within 60 days of major Critical Decision milestones to document the Board’s assessment of the project’s safety strategy and readiness to proceed with the next project stage.	Within 60 days	Achieved  Average of 57 days.
2015	Provide early notification to DOE of safety issues at DOE design and construction projects by issuing project letters within 60 days of major Critical Decision milestones to document the Board’s assessment of the project’s safety strategy and readiness to proceed with the next project stage.	100%	Not Achieved  66% Complete

2014	Provide early notification to DOE of safety issues at DOE design and construction projects by issuing project letters in advance of major Critical Decision milestones to document the Board’s assessment of the project’s safety strategy and readiness to proceed with the next project stage.	100%	Not Achieved  33% Complete
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**Discussion:**

During FY 2017, the Board issued project letters for two significant Hazard Category 2 projects that were approaching a CD Milestone (CD-1, 2, 3, or 4). The LANL Plutonium Facility-4 Equipment Installation Phase 1 (PEI1) Subproject [DOE Project #04-D-125-05]) achieved CD-2/3 in October 2016. The Board issued a project letter 18 days following the CD approval. The Board issued a project letter in June 2017, which is significantly ahead of the CD-2/3 approval for these Hazard Category 2 subprojects. Therefore, the Board’s goal of issuing project letters within an average of 60 days of a CD approval milestone for Hazard Category 2 facilities was met.

During FY 2016, the Board issued project letters for two significant Hazard Category 2 projects that were approaching a CD milestone. These projects include one that achieved the CD-1 preliminary design milestone: WIPP Underground Ventilation System (DOE Project #15-D-411). Another project letter was written for a project that received a CD-1/3A milestone approval in September of FY 2015: Metal Purification Project Major Modification at Y-12. In both cases, the project letters were completed within 60 days (average of 57 days). A project letter was drafted and sent prior to CD approval date in FY 2017.

During FY 2015, the Board issued project letters for three significant Hazard Category 2 projects that were approaching a CD milestone. These projects include one that achieved the CD-1 preliminary design milestone: Low Activity Waste Pretreatment System. There were two projects that achieved the CD-4 project completion milestone during FY 2015: the Waste Solidification Building and the SRS Purification Area Vault Project. Two of the project letters were issued within 60 days of the CD milestone. This corresponded to a success rate of 66 percent for this performance goal.

During FY 2014, the Board issued project letters for three significant Hazard Category 2 projects that were approaching a CD milestone. These projects included one that achieved the CD-1 preliminary design milestone, Sludge Processing Facility Buildouts, and two that achieved the CD-3 final design milestone, Transuranic (TRU) Waste Facility and KW Basin Sludge Removal Project. One of the project letters was issued in advance of the CD milestone (the FY 2014 target measure), which corresponded to a success rate of 33 percent.

**Strategic Objective 3.2**

Accomplish independent safety oversight to enhance the clear and deliberate implementation of the principles and core functions of integrated safety management in the design, construction, and upkeep of safety systems in defense nuclear facilities.

**Performance Goal 3.2.1**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	<p>Conduct effective oversight through formal, well-planned reviews of the design, construction, and upkeep of safety systems at DOE’s defense nuclear facilities.</p> <p>Target: Number of reviews completed of safety systems that comply with the Board’s new Technical Staff Instructions, Operating Procedures, and Internal Controls.</p>	Complete 10 reviews	Achieved  > 10 Reviews
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Conduct effective oversight through formal, well-planned reviews of the design, construction, and upkeep of safety systems at DOE’s defense nuclear facilities.	Complete 10 reviews	Achieved  > 10 Reviews
2015	Conduct effective oversight through formal, well-planned reviews of the design, construction, and upkeep of safety systems at DOE’s defense nuclear facilities.	Complete 10 reviews	Achieved  10 Reviews
2014	Conduct effective oversight through formal, well-planned reviews of the design, construction, and upkeep of safety systems at DOE’s defense nuclear facilities.	Complete 6 reviews	Achieved  6 Reviews

**Discussion:**

In FY 2017, the Board's technical staff completed the 23 reviews listed below.

1. Design Review of the Permanent Ventilation System for the Waste Isolation Pilot Plant, completed October 2016. Scope: Review safety basis documents for the 30 percent design package. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
2. Preliminary Fire Hazards Analysis Review at the Uranium Processing Facility, completed February 2017. Scope: Review fire protection systems, calculations, and analysis. New potential safety issue(s) was identified by this review that resulted in Board communication to the Department of Energy in FY17. June 26, 2017, Board project letter for the Uranium Processing Facility (UPF) describing opportunities for improvement related to the UPF safety strategy for fire protection.
3. Testing Review of the Salt Waste Processing Facility Safety Instrumented System, completed March 2017. Scope: Review test procedures and observe safety system testing. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
4. Review of Hydrogen Flammability Hazards in Waste Treatment and Immobilization Plant Vessels, completed March 2017. Scope: Review design proposals for safety systems that prevent or mitigate flammability hazards in vessels. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
5. Review of Hydrogen Flammability Hazards in Waste Treatment and Immobilization Piping Systems, completed March 2017. Scope: Review design proposals for safety systems that prevent or mitigate flammability hazards in piping. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
6. Review of Criticality Hazards at the Waste Treatment and Immobilization Plant, completed in March 2017. Scope: Review design proposals for safety systems that prevent criticality. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
7. Probabilistic Seismic Hazard Analysis at the Uranium Processing Facility, completed April 2017. Scope: Review documentation for the Probabilistic Seismic Hazard Analysis used to establish safety control designs. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

8. Design Review of the Permanent Ventilation System for the Waste Isolation Pilot Plant, completed April 2017. Scope: Review of the safety basis documents for the 60% design package. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
9. Testing Review of the Salt Waste Processing Facility Sludge Solids Receipt and Wash Water Hold system, completed June 2017. Scope: Review the testing procedures and observe the safety system testing. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
10. Review of LANL Plutonium Infrastructure, completed July 2017. Scope: Review Safety system background information related to Plutonium infrastructure. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

Additionally, the following staff reviews were completed during FY 2017:

***LANL***

1. Commercial grade dedication of safety systems at the Transuranic Waste Facility. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
2. PF-4 column testing and nonlinear analysis statement of work. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
3. PF-4 alternate seismic analysis statement of work. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
4. Transuranic Waste Facility safety control set as defined in the Documented Safety Analysis. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
5. Plutonium infrastructure. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

***Hanford***

1. Design requirements for the safety instrumented system at the Low-Activity Waste Pretreatment System. New potential safety issue(s) was identified by this review that resulted in Board communication to the Department of Energy in FY17. August 7, 2017, Board letter transmitting the DNFSB Staff Issue Report, Alternative Methodology for Safety Integrity Level Determination of Instrumented Systems at the Low-Activity Waste Pretreatment System, for DOE's information and use.
2. Electrical safety systems at the Waste Treatment and Immobilization Plant. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
3. Heat transfer modeling of Waste Treatment and Immobilization Plant vessels

4. Melter off-gas system at the Waste Treatment and immobilization Plant. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.
5. Safety system design calculations for spray leak accidents at the Waste Treatment and Immobilization Plant. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

***Savannah River Site (SRS)***

1. Safety system testing on the Barium Decay and Salt Solution Feed systems at the Salt Waste Processing Facility. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

***Y-12***

1. Geotechnical/Structural Construction of the Uranium Processing Facility. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

***Waste Isolation Pilot Plant (WIPP)***

1. WIPP Permanent Ventilation System 90 percent Design Review. No new potential safety issues were identified by this review that resulted in Board communication to the Department of Energy in FY17.

In FY 2016, the Board's technical staff completed sixteen reviews of safety systems that comply with the Board's Technical Staff Instructions, Operating Procedures, and Internal Controls. These reviews covered major projects including WTP, UPF, WIPP Permanent Ventilation System, and SWPF. Further, the technical staff completed reviews regarding Software Quality Assurance for the Analysis of Soil-Structure Interaction Calculation, Probabilistic Seismic Hazard Analyses, and Extended Life Programs.

In FY 2015, ten reviews of safety systems were completed that comply with the Board's Technical Staff Instructions, Operating Procedures, and Internal Controls. These reviews covered topics including Safety Instrumented Systems at SWPF, Confinement Ventilation at the Uranium Processing Facility, and a Nuclear Safety Initiatives Review for the Sludge Treatment Project. There were a total of six reviews performed at WTP. These review topics included Melter Accidents and Hazard Analysis, Seismic Classification of the Confinement Boundary, Hydrogen Control Strategy, and Sampling for Waste Feed Delivery.

In FY 2014, six reviews of safety systems were completed that comply with the Board's Technical Staff Instructions, Operating Procedures, and Internal Controls. These reviews covered topics including Probabilistic Seismic Hazard Analysis at INL and the Hanford Site, aging management of waste transfer lines at SRS, ammonia hazards at Hanford's WTP, and Safety Design Strategy for the High Level Waste Facility at WTP.

**Performance Goal 3.2.2**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	<p>Notify DOE of potential safety issues regarding design and construction projects at defense nuclear facilities.</p> <p>Target: Percentage of Board letters regarding potential safety deficiencies sent to DOE (for which the Board receives a response in the target year) that result in a DOE assessment of the safety issues.</p>	90% (measured collectively with goals 1.1.3, 1.2.2, 2.2.2)	<p>Collective Result: Not applicable.</p> <p>There were two Board letters notifying DOE of potential new safety issues in FY2017. One letter was communicated as an opportunity for improvement. The other was provided to DOE for information and use.</p> <p>Goal 3.2.2 Result: Not applicable, no responses received from DOE on letters sent in FY17.</p>
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Notify DOE of potential safety issues regarding design and construction projects at defense nuclear facilities.	90% (measured collectively with goals 1.1.3, 1.2.2, 2.2.2)	<p>Achieved</p> <p>100% of letters resulted in DOE/NNSA assessment of the safety issue.</p>
2015	Notify DOE of potential safety issues regarding design and construction projects at defense nuclear facilities.	85% of letters result in positive DOE response	<p>Achieved</p> <p>100% of letters resulted in positive DOE response.</p>

2014	Notify DOE of potential safety issues regarding design and construction projects at defense nuclear facilities.	80% of letters result in positive DOE response	Achieved  100% of letters resulted in positive DOE response.
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**Discussion:**

The metric used to evaluate this goal is applied to reviews that resulted in official Board correspondence to DOE. This goal focuses on those issues that were evaluated as significant enough to merit correspondence. Board correspondence can be in the form of a letter that does not request a written response from DOE, or in the form of a letter with a reporting requirement or a Board recommendation, both of which require a written response.

During FY 2017, the Board issued two Project letters at CD milestones. These letters included a June 2017 correspondence on the Uranium Processing Facility (DOE Project #06-D-141) that listed opportunities for improvement related to the Uranium Processing Facility’s safety strategy for fire protection. Neither of these letters had a reporting requirement. Consequently, there has been no response from DOE during FY 2017 regarding potential safety issues at defense nuclear facilities in design and construction.

In FY 2016, there was one Board letter produced for design and construction projects that applies to the performance goal. In this case, DOE assessed the issue and gave enough information to warrant a positive response. Note that in FY 2016, the Board changed the target measure for this performance goal to a collective percentage with additional Board performance goals. With the addition of the other applicable Board Letters and because this performance goal is measured collectively with performance goals 1.1.3, 1.2.2, and 2.2.2, this metric can be measured at 100 percent for FY 2016. The correspondence issued to DOE on potential safety issues regarding design and construction projects at DOE defense nuclear facilities, and the response by DOE received during FY 2016, was a Board letter establishing a 45 day reporting requirement for a letter regarding DOE’s position on controlling river access and protecting public receptors from accidents during Sludge Treatment Project (STP) slurry transfers. The Board letter was issued on August 21, 2015, and the DOE response date was November 18, 2015. In their response, DOE/NNSA completed an assessment of the safety issue.

In FY 2015 and FY 2014, this performance goal was used to track DOE positive response to Board correspondence. The Board issued correspondence to DOE on potential safety issues regarding design and construction projects at defense nuclear facilities in eleven different instances during FY 2015. In all letters that required a DOE response, it was determined that the assessment was positive. In FY 2014, the Board issued correspondence to DOE on potential safety issues at DOE defense nuclear facilities and in nuclear waste remediation operations in two instances: the Transuranic Waste Processing Center Sludge Processing Facility Buildouts Project at ORNL, and the Transuranic Waste Facility Project at LANL. In both instances the response was assessed to be positive.



**Strategic Goal 4 - Achieve Excellence in Management and Communication with Stakeholders**

Operate in a manner that is accountable to the public and achieves the mission efficiently and effectively

**Strategic Objective 4.1**

Improve internal management controls to achieve the Board’s mission efficiently and effectively.

**Performance Goal 4.1.1**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	Within OTD, develop, implement, and maintain formal procedures and Internal Controls prescribing effective and efficient safety oversight of DOE defense nuclear facilities.  Target: Percentage reviewing and revising procedures prior to each procedure’s Review date.	Maintain 100% of existing internal procedures by reviewing and revising internal procedures prior to each procedure’s Review date.	Not Achieved  7% Complete revision prior to procedure’s Review date  41% Review procedure and extend Review date prior to the procedure’s Review date
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Within OTD, develop and implement formal procedures and Internal Controls prescribing effective and efficient safety oversight of DOE defense nuclear facilities.	100% complete for Phase 2 procedures	Not Achieved  80% Complete for Phase 2 procedures
2015	Within OTD, develop and implement formal procedures and Internal Controls prescribing effective and efficient safety oversight of DOE defense nuclear facilities.	100% complete for Phase 1 procedures  50% complete for Phase 2 procedures	Achieved  100% Complete for Phase 1 procedures  50% complete for Phase 2 procedures

2014	Within OTD, develop and implement formal procedures and Internal Controls prescribing effective and efficient safety oversight of DOE defense nuclear facilities.	100% complete for Phase 1 procedures	Not Achieved  48% Complete
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**Discussion:**

In FY 2017, the Office of the Technical Director completed revision for four of 27 internal procedures that was due for review and revision, of which two were completed prior to the procedure's review date and two were not. The Office of the Technical Director reviewed the remaining 23 internal procedures, and determined that the procedure's review date could be extended. Eleven of these procedures were extended before they were due for review and revision. Of the 23 extended procedures, three procedures were revised and eleven procedures were recertified in FY 2017. Revision of the remaining internal procedures are anticipated in FY 2018.

In FY 2016, the Board completed implementation of four out of the five remaining Phase 2 procedures. The Board did not complete an update to technical staff procedure OP-542.1-6, *Developing Board Recommendations*, as planned. In FY 2015, the Board completed implementation of Phase 1 documents after completing 48 percent in FY 2014.

**Information on Unmet Target in FY 2017:**

The Office of the Technical Director created its first technical staff procedures in FY 2014. At that time, the Technical Director established a requirement to review or recertify all operating procedures every three years. As a result, the majority of the Office of the Technical Director's operating procedures required review or recertification in FY 2017. However, during FY 2017, the Office of the Technical Director prioritized mission work over revising its internal procedures. The Office of the Technical Director has established a schedule to review, recertify, and revise overdue procedures in FY 2018.

**Performance Goal 4.1.2**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	<p>Within OGM, develop and implement formal procedures and Internal Controls prescribing effective and efficient support of the Board's mission.</p> <p>Target: Percentage completion of significant OGM work processes with effective procedures.</p>	96% Complete	<p>Not Achieved</p> <p>60% Complete</p>
<b>Actual Results for Preceding Fiscal Years</b>			
2016	<p>Within OGM, develop and implement formal procedures and Internal Controls prescribing effective and efficient support of the Board's mission.</p>	75% Complete	<p>Achieved</p> <p>77% Complete</p>
2015	<p>Within OGM, develop and implement formal procedures and Internal Controls prescribing effective and efficient support of the Board's mission.</p>	50% Complete	<p>Achieved</p> <p>60% Complete</p>
2014	<p>Within OGM, develop and implement formal procedures and Internal Controls prescribing effective and efficient support of the Board's mission.</p>	33% Complete	<p>Not Achieved</p> <p>32% Complete</p>

**Discussion:**

In FY 2014, OGM embarked on a multi-year goal to assess its operating procedures for significant work processes. The Board's Internal Control Program Operating Procedures identified 25 significant work processes within OGM. Ten work processes received internal control assessments in FY 2014 and were reviewed by the Board's ECIC. Of those, eight of 25 (or 32 percent) were assessed by the ECIC as having effective internal controls. In FY 2015, 13 work processes were assessed for a cumulative total over both years of 16 (seven work processes were assessed both years). Of the 16, 15 out of 25 (or 60 percent) were assessed by the ECIC as having effective internal controls. An additional OGM work process was added in 2016 to bring the total to 26. In FY 2016, 12 of the 26 work processes (3 of which were repeat assessments) were assessed for a cumulative total over all three years of 25. Of the 26, 20 out of 26 (or 77

percent) were assessed as having effective internal controls. In FY 2017, 10 of the 26 OGM work processes were assessed (one was a repeat assessment). Six of the 10 work processes were assessed as having effective internal controls.

**Information on Unmet Target:**

Four of the 10 work processes were assessed as not having effective internal controls due to lack written procedures. Corrective action plans are in process for these work processes with the goal of developing operating procedures in FY 2018.

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**Performance Goal 4.1.3**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	<p>Within OGC, develop and implement formal procedures and Internal Controls prescribing effective and efficient support of the Board's mission.</p> <p>Target: Percentage completion of newly developed procedures. This indicator does not include other OGC tasks or completed work.</p>	75% Complete	<p>Achieved</p> <p>75% Complete</p>
<b>Actual Results for Preceding Fiscal Years</b>			
2016	<p>Within OGC, develop and implement formal procedures and Internal Controls prescribing effective and efficient support of the Board's mission.</p>	50% Complete	<p>Achieved</p> <p>50% Complete</p>
2015	<p>Within OGC, develop and implement formal procedures and Internal Controls prescribing effective and efficient support of the Board's mission.</p>	33% Complete	<p>Achieved</p> <p>36% Complete</p>
2014	<p>Within OGC, develop and implement formal procedures and Internal Controls prescribing effective and efficient support of the Board's mission.</p>	40% Complete	<p>Not Achieved</p> <p>21% Complete</p>

**Discussion:**

Continued staffing shortfalls and emerging work hampered OGC efforts to develop and implement formal procedures and Internal Controls prescribing effective and efficient support of the Board's mission. OGC developed and implemented the Hatch Act program directive, provided agency-wide Hatch Act training in conjunction with its annual ethics training, and provided Hatch Act reminders during the election season. Completion of implementation of this procedure is assessed at 100 percent. Procedures for receipt and processing of safety allegations and for alternative dispute resolution are in final coordination. Completion of development, but not implementation, of these two procedures is assessed at 90 percent, with the total of the three procedures assessed at 75 percent of the target measure of completion of the newly developed procedures.

**Strategic Objective 4.2**

Improve the alignment of human capital strategies with agency mission, goals, and objectives through analysis, planning, investment, measurement, and management of human capital programs.

**Performance Goal 4.2.1**

<b>Fiscal Year</b>	<b>Goal Statement</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	Achieve a more results-oriented performance culture.  Target: Number of employees operating under a performance-based appraisal system.	To ensure the continued success of the Board’s results-oriented performance culture, develop and implement annual professional development and training opportunities in the areas of performance management and achieving organizational results.	Achieved
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Achieve a more results-oriented performance culture.	Develop and implement electronic DN, General Schedule (GS) and Senior Executive Service (SES) performance appraisal systems by August 31, 2016.	Not Achieved

2015	Achieve a more results-oriented performance culture.	(1) Implement a Senior Executive Service (SES) performance appraisal system that achieves certification by the Office of Personnel Management (OPM) by September 30, 2015; (2) Implement a revised General Schedule (GS) performance management system that supports a results-oriented performance culture at the Board.	Not Achieved
2014	Achieve a more results-oriented performance culture.	Develop a revised GS performance management system to ensure higher standards and employee accountability by August 31, 2014.	Ongoing

**Discussion:**

The Board implemented a more results-oriented performance-based appraisal system for its excepted service staff (engineers and scientists) in FY 2012, and planned to implement a more results-oriented performance appraisal system for its GS staff in FY 2015, along with achieving a certified SES appraisal system. Those goals were achieved in FY 2016. The Board completed development of a new SES performance appraisal system along with the supporting documentation necessary for OPM review (e.g., a new policy on SES pay). OPM approved system certification in August, 2016 for immediate implementation. The Board also developed a new results-oriented GS performance management system that was approved by OPM in May 2016. In FY 2017 the Board provided training in performance management for both employees and supervisors. The training focused on the importance of tying performance management to the strategic goals of the agency.

**Performance Goal 4.2.2**

<b>Fiscal Year</b>	<b>Goal Statement</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	Address human capital gaps identified in critical mission functions.  Target: Number of unfulfilled critical mission functions.	To ensure identified human capital gaps continue to be addressed, develop and implement a structured training and professional development program based on occupation.	Achieved
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Address human capital gaps identified in critical mission functions.	Develop a useful and flexible workforce management plan to address human capital gaps identified by the Board’s Office Directors for the entire Board and execute the plan by January 1, 2016.	Achieved
2015	Address human capital gaps identified in critical mission functions.  Target: Number of unfulfilled critical mission functions.	Develop a useful and flexible workforce management plan to address human capital gaps in the mission critical positions identified by Board’s Office Directors for FY 2015 execution.	Achieved



2014	<p>Address human capital gaps identified in critical mission functions.</p> <p>Target: Number of unfulfilled critical mission functions.</p>	<p>Critical mission functions are defined within each position (entry-, mid-, and senior-career level) by June 30, 2014.</p>	Achieved
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**Discussion:**

In FY 2017, the largest identified human capital gap was in the area of leadership. As a result the Board developed and implemented a new program; the Full-time External Professional Development Opportunities program (Program). The Program supports and encourages employees at all levels of the organization to pursue external opportunities for broadened leadership development. The program has been well-received and well used with 3 employees taking advantage of external opportunities never before offered to Board employees.

In FY 2016, the agency planned and executed its most comprehensive and diverse recruitment effort to fill identified mission-critical positions in agency history. Based on identified gaps in the workforce, recruitments and selections for all mission-critical DN positions were performed by the end of the fiscal year. Additionally, based on identified gaps in the OGM workforce, additional resources were requested, justified, and approved in the areas of information technology and security. As a result of agency-wide efforts to recruit and fill mission-critical positions the agency is on target to meet its full-time equivalent budget request of 120 in FY 2017.

In FY 2015, a workforce management plan to address the need to hire for mission critical positions was developed and implemented. The plan was a useful and flexible tool that allowed the use of recruitment resources for targeted positions (e.g., Engineers, IT Security Specialist) and as a result, the Board was able to hire nine new employees in mission-critical positions and make offers of employment to an additional five engineers with diverse levels of education and experience. In terms of mission-critical positions, FY 2015 was the agency's most successful recruiting year to that date, and much of that success was the result of implementing the workforce management plan that identified the Board's human capital gaps and recommended strategies to address them.

In FY 2014, Human Resources, with input from OTD and OGC, defined the mission-critical functions within each of the Board offices. Additionally, generic core competencies were developed for entry-level, mid-career, and senior-level positions.

**Strategic Objective 4.3**

Improve and sustain effective, transparent two-way communications between the Board and its stakeholders on safety issues in DOE’s defense nuclear complex and on the Board’s operations.

**Performance Goal 4.3.1**

Fiscal Year	Goal Statement and Target	Target Measure, Milestone, or Deliverable	Result
2017	<p>Provide timely communications of safety observations obtained through direct oversight and maintaining cognizance of nuclear facilities at DOE’s nuclear weapons sites.</p> <p>Target: Percentage of resident inspector weekly and site monthly reports documenting direct oversight requiring no more than 21 calendar days of processing time by Board’s staff from the date of the report to post to the Board’s public website (assumes posting within 35 calendar days of the date of the report based on more than 14 calendar days of DOE classification review).</p>	100%	<p>Not Achieved</p> <p>Approximately 93% of reports required no more than 21 calendar day based on data available.</p>
<b>Actual Results for Preceding Fiscal Years</b>			
2016	<p>Provide timely communications of safety observations obtained through direct oversight and maintaining cognizance of nuclear facilities at DOE’s nuclear weapons sites.</p>	95%	<p>Not Achieved</p> <p>Approximately 66% of reports required no more than 21 calendar day based on data available.</p>
2015	<p>Provide timely communications of safety observations obtained through direct oversight and maintaining cognizance of nuclear facilities at DOE’s nuclear weapons sites.</p>	85%	<p>Achieved</p> <p>88.5% posted within 35 days</p>

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2014	Provide timely communications of safety observations obtained through direct oversight and maintaining cognizance of nuclear facilities at DOE's nuclear weapons sites.	80%	Achieved  89% posted within 35 days
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**Discussion:**

During FY 2017, the Board continued to produce and post resident inspector weekly and site monthly reports on the Board's public website. While all of these reports are posted, the Board did not achieve the timeliness metric identified for FY 2017 based on the data that is available. The Board implemented a new process for completing timely internal staff review and external DOE classification and sensitivity reviews in FY 2017. The revised process will ensure reports are posted promptly after security reviews are completed.

During FY 2016, the Board was impacted by turnover in security staff and DOE required changes to the work processes involved in this metric. The process for completing timely internal staff review along with external DOE classification and sensitivity reviews has been revised.

In FY 2015, the Board provided timely communications of safety observations obtained through direct oversight and maintaining cognizance of nuclear facilities at DOE's nuclear weapons sites by posting its resident inspector weekly reports to the Board's public webpage within 35 days of the date of the report. Of the 260 resident inspector weekly reports, the Board posted 230 to its public webpage within 35 days of the date of the report for an overall percentage of 88.5 percent. In FY 2014, the Board posted 229 of 260 resident inspector weekly reports to its public website within 35 days of the date of the report.

**Information on Unmet Target:**

As noted above, this performance goal was not met for FY 2017. The Board implemented a new process for completing timely internal staff review and external DOE classification and sensitivity reviews. The revised process did result in improvement from FY 2016. Additionally, improvement was made quarter by quarter during FY 2017. First quarter FY 2016 resulted in 88 percent of weekly reports posted within 35 days, second quarter resulted in 90 percent, third quarter 98 percent, and fourth quarter of FY 2017 has achieved 100 percent to date.

**Performance Goal 4.3.2**

Fiscal Year	Goal Statement and Target	Target Measure, Milestone, or Deliverable	Result
2017	Inform the Congress and other stakeholders of potential safety issues early in the design and construction phases of DOE defense nuclear facilities.  Target: Number of <i>Reports to Congress on the Status of Significant Unresolved Issues with DOE's Design and Construction Projects</i> published and submitted to Congress. Inclusion within the Board's Annual Report to Congress of a separate section bearing this title shall count as a report meeting this goal.	1 report	Achieved  1 report submitted to Congress (Included within the Board's Annual Report to Congress)
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Inform the Congress and other stakeholders of potential safety issues early in the design and construction phases of DOE defense nuclear facilities.	1 report	Achieved  1 report submitted to Congress
2015	Inform the Congress and other stakeholders of potential safety issues early in the design and construction phases of DOE defense nuclear facilities.	1 report	Achieved  1 report submitted to Congress
2014	Inform the Congress and other stakeholders of potential safety issues early in the design and construction phases of DOE defense nuclear facilities.	3 reports	Achieved  3 reports submitted to Congress

2013 <sup>1</sup>		N/A	2
2012		N/A	2

**Discussion:**

On April 27, 2017, the Board published its 27<sup>th</sup> Annual Report to Congress. Similar to the Board's 26<sup>th</sup> Annual Report to Congress (published on March 30, 2016), the latest report included a section titled, Status of Significant Unresolved Issues with DOE's Design and Construction Projects, which satisfied the performance goal.

In FY 2015, the Board published its 25<sup>th</sup> Annual Report to Congress on March 11, 2015, which also included a section titled, Status of Significant Unresolved Issues with DOE's Design and Construction Projects, which satisfied the FY 2015 performance goal. The Board published three Reports to Congress on the Status of Significant Unresolved Technical Differences between the Board and DOE on Issues Concerning the Design and Construction of DOE's Defense Nuclear Facilities during FY 2014 and submitted them to Congress in December 2013, May 2014, and September 2014.

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<sup>1</sup> Although this performance goal was established in FY 2014, the Board has been tracking this measure for multiple years, and thus actual results for FY 2013 and FY 2012 are also included for this goal.

**Performance Goal 4.3.3**

<b>Fiscal Year</b>	<b>Goal Statement and Target</b>	<b>Target Measure, Milestone, or Deliverable</b>	<b>Result</b>
2017	Effectively communicate safety issues by conducting public hearings in communities near DOE defense nuclear facilities and in Washington, DC.  Target: Number of public hearings.	3 public hearings	Not Achieved  1 public hearing
<b>Actual Results for Preceding Fiscal Years</b>			
2016	Effectively communicate safety issues by conducting public hearings in communities near DOE defense nuclear facilities and in Washington, DC.	3 public hearings	Not Achieved  1 public hearing
2015	Effectively communicate safety issues by conducting public hearings in communities near DOE defense nuclear facilities and in Washington, DC.	3 public hearings	Achieved  3 public hearings
2014	Effectively communicate safety issues by conducting public hearings in communities near DOE defense nuclear facilities and in Washington, DC.	3 public hearings	Achieved  3 public hearings
2013		N/A	2
2012		N/A	3

**Discussion:**

The Board did not satisfy this performance goal in FY 2017. The Board held a public hearing on the topic of the safety posture of the Plutonium Facility at LANL, on June 7, 2017, in Santa Fe, New Mexico. The purpose was to gather information regarding the risk associated with current and future Plutonium Facility inventory levels, actions taken by NNSA and LANL to address opportunities identified by the Board to minimize material-at-risk, actions to reduce facility risk for long-term operations, and the adequacy and status of safety systems to support current and long-term operations.

On September 26, 2017, the Board held a public meeting to discuss oversight of emergency preparedness and response, with a special emphasis on open Board Recommendation 2014-1,

*Emergency Preparedness and Response.* The purpose of this meeting was for the Board to obtain testimony from the DNFSB staff on their completed and documented efforts to date regarding these topics. The Board deliberated and voted to close Recommendation 2014-1.

In addition to these public hearings, the Board held the following:

- A Business Meeting on February 21, 2017, to discuss the conduct of periodic Board business meetings, and to explore improved efficiency and effectiveness of Board interactions
- A closed meeting on March 23, 2017
- A Business Meeting on May 11, 2017 to discuss a staff effort to develop a potential scorecard regarding safety oversight of Defense Nuclear Facilities
- A closed meeting on July 18, 2017
- A Business Meeting on September 28, 2017, to discuss (1) a new Strategic Plan, (2) a work plan for the Office of the Technical Director for Fiscal Year 2018, (3) a work plan for the Office of the General Manager for Fiscal Year 2018, (4) a work plan for the Office of the General Counsel for Fiscal Year 2018, and (5) a staffing plan for Fiscal Year 2018

The Board did not satisfy this performance goal in FY 2016. The Board held one public hearing on the topic of LANL Transuranic (TRU) Waste Management, on March 22, 2016, in Santa Fe, New Mexico. In addition to the public hearing, the Board held a public business meeting, and four closed meeting in FY 2016.

The Board satisfied its performance goal in FY 2015 by holding three public hearings. These included public hearings on 1) *Safety Culture and Board Recommendation 2011-1*; 2) *WIPP Safety during Recovery and Resumption of Operations*; 3) *Improving Safety culture at the Waste Treatment and Immobilization Plant*.

The Board satisfied its performance goal in FY 2014 by holding three public meetings. These included public hearings and meetings on 1) *Safety in Design, Operations, and Emergency Preparedness at the Y-12 National Security Complex*; 2) *Safety Culture and Board Recommendation 2011-1*; and 3) *Safety Culture and Board Recommendation 2011-1*.

**Information on Unmet Target in FY 2017:**

Although the Board did not conduct three public hearings, the Board increased its efforts to engage in other activities that inform the public and other stakeholders about safety issues. These activities included public Board business meetings, briefings to DOE and NNSA leadership, engagement with key Congressional Committees and Member offices, and meetings with state and local officials.

## Chapter 3 - CFO Letter, Auditor's Report, and Financial Statements

### CFO Letter

I am pleased to report that the Board's FY 2017 financial statements received an unmodified opinion from its independent auditors, the Board's twelfth consecutive "clean" opinion since its FY 2004 financial statements were initially audited pursuant to the Accountability of Tax Dollars Act of 2002 (ATDA). In addition, the Board received an unqualified opinion on its internal control over reporting. FY 2017 marked the eleventh consecutive year that the Board's clean opinion was coupled with no instances of non-compliance with laws and regulations and no material financial internal control weaknesses.

The financial statements that follow were prepared and audited as part of this performance and accountability report within 45 days after the end of the fiscal year. To ensure that resources are dedicated to fulfilling the demanding health and safety oversight mission, the Board has adopted the "economies of scale" philosophy for obtaining needed administrative support services and "contracts" (through Interagency Agreements) with USDA to act as its accounting services provider. The Board's financial staff worked diligently with its USDA accountants in preparing our FY 2017 financial statements and providing the necessary supporting documentation to its auditors, and credit should be given to both those organizations for achieving these accomplishments.

### **Compliance with Laws and Regulations**

The auditors tested the Board's compliance with certain provisions of laws and regulations, non-compliance which could have a direct and material effect on the determination of financial statement amounts, and certain other laws in regulations specified in OMB Bulletin 15-02, *Audit Requirements for Federal Financial Statements*. For the tenth consecutive year, the auditors found no instances of non-compliance with such laws or regulations.

### **Internal Controls**

In planning and performing the financial statements audit, the independent auditors considered the Board's internal control over financial reporting by obtaining an understanding of the Board's internal controls, determining if internal controls had been placed in operation, assessing controls risk, and performing tests of controls. Testing of internal controls was limited to those controls necessary to achieve objectives described in OMB Bulletin 15-02. The auditors noted no internal control material weaknesses for the eleventh consecutive year.

The auditor's report is included in its entirety in this Chapter.

Glenn Sklar, General Manager



**FY 2017 Auditor's Report**

INSERT: IG letter re: results of audit





INSERT: Final Audit Report

INSERT: GM letter re: internal controls over financial reporting

INSERT: GM letter re: audit report

**FY 2017 Financial Statements and Notes**



**DEFENSE NUCLEAR FACILITIES SAFETY BOARD**

**GENERAL FUND**

**FINANCIAL STATEMENTS**

**As Of And For The Years Ended September 30, 2017 and 2016**

**Defense Nuclear Facilities Safety Board**  
**BALANCE SHEET**

As Of September 30, 2017 and 2016

		2017	2016
<b>Assets:</b>			
<b>Intragovernmental:</b>			
Fund Balance With Treasury	(Note 2)	\$ 13,527,280.81	\$ 13,281,280.42
Accounts Receivable	(Note 3)		
<b>Other:</b>			
Advances and Prepayments	(Note 5)	2.00	40,513.00
<b>Total Intragovernmental</b>		<b>13,527,282.81</b>	<b>13,321,793.42</b>
<b>Assets With The Public:</b>			
General Property, Plant and Equipment, Net	(Note 4)	260,945.45	394,880.17
<b>Total Assets</b>		<b>\$ 13,788,228.26</b>	<b>\$ 13,716,673.59</b>
<b>Liabilities:</b>			
<b>Intragovernmental:</b>			
Accounts Payable	(Note 7)	\$ 455,469.50	\$ 234,147.10
<b>Other:</b>			
Employer Contributions and Payroll Taxes Payable	(Note 9)	\$ 151,665.85	\$ 138,687.51
Other Unfunded Employment Related Liability	(Note 10)	762.00	7,562.00
<b>Total Intragovernmental</b>		<b>607,897.35</b>	<b>380,396.61</b>
<b>Liabilities With the Public:</b>			
Accounts Payable		551,064.17	654,745.16
<b>Other:</b>			
Accrued Funded Payroll and Leave	(Note 9)	1,039,510.35	892,957.25
Employer Contributions and Payroll Taxes Payable	(Note 8)	27,848.38	27,451.25
Unfunded Leave		1,360,472.16	1,387,463.00
<b>Total Liabilities</b>	(Note 6)	<b>\$ 3,586,792.41</b>	<b>\$ 3,343,013.27</b>
<b>Net Position:</b>			
Unexpended Appropriations - All Other Funds (Consolidated Totals)		\$ 11,301,724.56	\$ 11,373,805.15
Cumulative Results of Operations - All Other Funds (Consolidated Totals)		(1,100,288.71)	(1,000,144.83)
<b>Total Net Position - All Other Funds (Consolidated Totals)</b>		<b>10,201,435.85</b>	<b>10,373,660.32</b>
<b>Total Net Position</b>		<b>\$ 10,201,435.85</b>	<b>\$ 10,373,660.32</b>
<b>Total Liabilities and Net Position</b>		<b>\$ 13,788,228.26</b>	<b>\$ 13,716,673.59</b>

The accompanying notes are an integral part of these statements.



**Defense Nuclear Facilities Safety Board**  
 STATEMENT OF NET COST  
 As Of And For The Years Ended September 30, 2017 and 2016

	2017	2016
Program Costs:		
DNFSB:		
Gross Costs	\$ 31,447,586.92	\$ 29,672,358.59
Net Program Costs	(Note 12) 31,447,586.92	29,672,358.59
Net Cost of Operations	\$ 31,447,586.92	\$ 29,672,358.59

The accompanying notes are an integral part of these statements.

FY 2017  
**DEFENSE NUCLEAR FACILITIES SAFETY BOARD**  
 Performance and Accountability Report

**Defense Nuclear Facilities Safety Board**  
 STATEMENT OF CHANGES IN NET POSITION  
 As Of And For The Years Ended September 30, 2017 and 2016

FY 2017 (CY)

	Funds From Dedicated Collections (Consolidated Totals)	All Other Funds (Consolidated Totals)	Eliminations	Consolidated Total
<b>Cumulative Results from Operations:</b>				
Beginning Balances	\$	\$ (1,000,144.83)	\$	\$ (1,000,144.83)
Beginning balance, as adjusted		(1,000,144.83)		(1,000,144.83)
<b>Budgetary Financing Sources:</b>				
Appropriations used		30,944,080.59		30,944,080.59
Other		(132,855.55)		(132,855.55)
<b>Other Financing Sources (Non-Exchange):</b>				
Imputed financing		536,218.00		536,218.00
<b>Total Financing Sources</b>		<b>31,347,443.04</b>		<b>31,347,443.04</b>
Net Cost of Operations		31,447,586.92		31,447,586.92
Net Change		(100,143.88)		(100,143.88)
<b>Cumulative Results of Operations</b>		<b>(1,100,288.71)</b>		<b>(1,100,288.71)</b>
<b>Unexpended Appropriations:</b>				
Beginning Balance		11,373,805.15		11,373,805.15
Beginning Balance, as adjusted		11,373,805.15		11,373,805.15
<b>Budgetary Financing Sources:</b>				
Appropriations received		30,872,000.00		30,872,000.00
Appropriations used		(30,944,080.59)		(30,944,080.59)
<b>Total Budgetary Financing Sources</b>		<b>(72,080.59)</b>		<b>(72,080.59)</b>
<b>Total Unexpended Appropriations</b>		<b>11,301,724.56</b>		<b>11,301,724.56</b>
<b>Net Position</b>	<b>\$</b>	<b>\$ 10,201,435.85</b>	<b>\$</b>	<b>\$ 10,201,435.85</b>

The accompanying notes are an integral part of these statements.

**FY 2017**  
**DEFENSE NUCLEAR FACILITIES SAFETY BOARD**  
 Performance and Accountability Report

**Defense Nuclear Facilities Safety Board**  
**STATEMENT OF CHANGES IN NET POSITION**  
 As Of And For The Years Ended September 30, 2017 and 2016

FY 2016 (PY)

	Funds From Dedicated Collections (Consolidated Totals)	All Other Funds (Consolidated Totals)	Eliminations	Consolidated Total
<b>Cumulative Results from Operations:</b>				
Beginning Balances	\$	\$ (732,150.81)	\$	\$ (732,150.81)
Beginning balance, as adjusted		(732,150.81)		(732,150.81)
<b>Budgetary Financing Sources:</b>				
Appropriations used		28,736,905.57		28,736,905.57
<b>Other Financing Sources (Non-Exchange):</b>				
Imputed financing		667,459.00		667,459.00
Total Financing Sources		29,404,364.57		29,404,364.57
Net Cost of Operations		29,672,358.59		29,672,358.59
Net Change		(267,994.02)		(267,994.02)
Cumulative Results of Operations		(1,000,144.83)		(1,000,144.83)
<b>Unexpended Appropriations:</b>				
Beginning Balance		10,960,710.72		10,960,710.72
Beginning Balance, as adjusted		10,960,710.72		10,960,710.72
<b>Budgetary Financing Sources:</b>				
Appropriations received		29,150,000.00		29,150,000.00
Appropriations used		(28,736,905.57)		(28,736,905.57)
Total Budgetary Financing Sources		413,094.43		413,094.43
Total Unexpended Appropriations		11,373,805.15		11,373,805.15
Net Position	\$	\$ 10,373,660.32	\$	\$ 10,373,660.32

The accompanying notes are an integral part of these statements.

DEFENSE NUCLEAR FACILITIES SAFETY BOARD  
Performance and Accountability Report

Defense Nuclear Facilities Safety Board  
STATEMENT OF BUDGETARY RESOURCES

As Of And For The Years Ended September 30, 2017 and 2016

	<u>2017</u> <u>Budgetary</u>	<u>2016</u> <u>Budgetary</u>
<b>BUDGETARY RESOURCES</b>		
Unobligated balance brought forward, Oct 1	\$ 8,614,880.10	\$ 8,867,012.63
Unobligated balance brought forward, Oct 1, adjusted	8,614,880.10	8,867,012.63
Recoveries of prior year unpaid obligations	1,488,378.48	1,242,838.28
Other changes in unobligated balance (+ or -)	<u>(8,200.00)</u>	<u>7,863.28</u>
Unobligated balance from prior year budget authority, net	7,874,858.68	8,107,702.08
Appropriations (discretionary and mandatory)	30,872,000.00	29,160,000.00
<b>Total budgetary resources</b>	<b><u>\$ 38,848,858.68</u></b>	<b><u>\$ 37,267,702.08</u></b>
 <b>STATUS OF BUDGETARY RESOURCES</b>		
New obligations and upward adjustments (total)	(Note 13) \$ 30,836,346.13	\$ 30,743,021.88
Unobligated balance, end of year:		
Apportioned, unexpired account	3,678,180.18	2,817,078.74
Unexpired unobligated balance, end of year	3,678,180.18	2,817,078.74
Expired unobligated balance, end of year	<u>4,436,261.28</u>	<u>3,897,803.38</u>
Unobligated balance, end of year (total)	8,011,511.45	6,614,880.10
<b>Total budgetary resources</b>	<b><u>\$ 38,848,858.68</u></b>	<b><u>\$ 37,267,702.08</u></b>
 <b>CHANGE IN OBLIGATED BALANCE</b>		
Unpaid obligations:		
Unpaid obligations, brought forward, Oct 1	\$ 8,788,800.32	\$ 6,728,803.67
New obligations and upward adjustments	30,836,346.13	30,743,021.88
Outlays (gross) (-)	(30,817,788.81)	(28,480,388.87)
Recoveries of prior year unpaid obligations (-)	<u>(1,488,378.48)</u>	<u>(1,242,838.28)</u>
Unpaid obligations, end of year	6,616,789.38	6,788,800.32
Memorandum (non-add) entries		
Obligated balance, start of year (+ or -)	8,788,800.32	6,728,803.67
Obligated balance, end of year (+ or -)	<b><u>\$ 6,616,789.38</u></b>	<b><u>\$ 6,788,800.32</u></b>
 <b>BUDGET AUTHORITY AND OUTLAYS, NET</b>		
Budget authority, gross (discretionary and mandatory)	\$ 30,872,000.00	\$ 29,160,000.00
Actual offsetting collections (discretionary and mandatory) (-)	8,200.00	(7,863.28)
Recoveries of prior year paid obligations (discretionary and mandatory)	<u>(8,200.00)</u>	<u>7,863.28</u>
Budget authority, net (total) (discretionary and mandatory)	30,872,000.00	29,160,000.00
Outlays, gross (discretionary and mandatory)	30,817,788.81	28,480,388.87
Actual offsetting collections (discretionary and mandatory) (-)	8,200.00	(7,863.28)
Outlays, net (discretionary and mandatory)	<u>30,826,988.81</u>	<u>28,462,536.88</u>
Agency outlays, net (discretionary and mandatory)	(Note 15) \$ 30,826,988.81	\$ 28,462,536.88

The accompanying notes are an integral part of these statements.

**DEFENSE NUCLEAR FACILITIES SAFETY BOARD****GENERAL FUND****Note 1 – Significant Accounting Policies****(a) Reporting Entity**

The Board is an independent Federal government agency with responsibility for the oversight of DOE's defense nuclear facilities located throughout the United States. The Board is directed by a Chairman and four other members appointed by the President. The Board's mission as described by the Atomic Energy Act of 1954, as amended, is to "provide independent analysis, advice, and recommendations to the Secretary of Energy to inform the Secretary, in the role of the Secretary as operator and regulator of the defense nuclear facilities of the Department of Energy (DOE), in providing adequate protection of public health and safety at such defense nuclear facilities."

**(b) Basis of Presentation**

These financial statements have been prepared from the accounting records of the Board in accordance with generally accepted accounting principles (GAAP) as promulgated by the Federal Accounting Standards Advisory Board (FASAB) and Office of Management and Budget (OMB) Circular A-136, *Financial Reporting Requirements*. GAAP for Federal entities is the hierarchy of accounting principles prescribed in the American Institute of Certified Public Accountants' (AICPA) Statement on Auditing Standards No. 91, *Federal GAAP Hierarchy*.

Circular A-136 requires agencies to prepare principal statements, which include a Balance Sheet, a Statement of Net Cost, a Statement of Changes in Net Position, and a Statement of Budgetary Resources. The balance sheet presents, as of September 30, 2017, amounts of future economic benefits owned or managed by the Board (assets), amounts owed by the Board (liabilities), and amounts, which comprise the difference (net position). The Statement of Net Cost reports the full cost of the Board's operations and the Statement of Budgetary Resources reports Board's budgetary activity.

**(c) Basis of Accounting**

Transactions are recorded on the accrual accounting basis in accordance with OMB Circular A-136. Under the accrual basis of accounting, revenues are recognized when earned, and expenses are recognized when a liability is incurred, without regard to receipt or payment of cash. The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates.

**(d) Revenues and Other Financing Sources**

The Board receives its funding needed to support its activities through annual congressional appropriations. FY 2017 and FY 2016 appropriated funds are available for obligation until September 30, 2018 and September 30, 2017, respectively (i.e., two year funds). None of the appropriations is a "funds from dedicated collections" fund. An imputed financing source is recognized to offset costs incurred by the Board and funded by another Federal source (see Notes 1(i), 8 and 9).

**(e) Assets and Liabilities**

Intra-governmental assets and liabilities arise from transactions between the Board and other Federal entities.

Funds with the U.S. Treasury compose the majority of assets on the Board's balance sheet. All other assets result from activity with non-federal sources.

Liabilities represent amounts that are likely to be paid by the Board as a result of transactions that have already occurred. The accounts payable portion of liabilities consist of amounts owed to federal agencies and commercial vendors for goods, services, and other expenses received but not yet paid.

Liabilities covered by budgetary or other resources are those liabilities of the Board for which Congress has appropriated funds, or funding is otherwise available to pay amounts due. Liabilities not covered by budgetary or other resources represent amounts owed in excess of available congressionally appropriated funds or other amounts. The liquidation of liabilities not covered by budgetary or other resources is dependent on future congressional appropriations or other funding.

**(f) Fund Balance with the U.S. Treasury**

The U.S. Treasury processes the Board's receipts and disbursements. Funds with the U.S. Treasury are cash balances from appropriations as of the fiscal year-end from which the Board is authorized to make expenditures and pay liabilities resulting from operational activity.

**(g) Property, Plant, and Equipment (PPE)**

PPE consists of capitalized equipment, furniture and fixtures, and software. There are no restrictions on the use or convertibility of property, plant, or equipment.

The Board capitalizes PPE with a useful life of at least two years and individually costing more than \$10,000 (\$25,000 for leasehold improvements). Bulk purchases of lesser value items are capitalized when the cost is \$25,000 or greater.

Assets are depreciated on a straight-line basis over the estimated used life of the property. Information Technology (IT) equipment and software is depreciated over a useful life of three years. All other equipment is depreciated over a five year useful life. Furniture and fixtures are depreciated over a seven year useful life and leasehold improvements over a ten year useful life.

The Board owns no land and leases its office space via the General Services Administration (GSA). The lease costs approximate commercial lease rates for similar properties.

**(h) Annual, Sick, and Other Leave**

Annual leave is recognized as an expense and a liability as it is earned; the liability is reduced as leave is taken. The accrued leave liability is principally long-term in nature. Sick leave and other types of leave are expensed as leave is taken.

**(i) Federal Employee Benefits**

The Board recognizes its share of the cost of providing future pension benefits to eligible employees over the period of time that they render service to the Board. The pension expense recognized in the financial

statement equals the current service cost for the Board's employees for the accounting period less the amount contributed by the employees. The Office of Personnel Management (OPM), the administrator of the plan, supplies the Board with factors to apply in the calculation of the service cost. These factors are derived through actuarial cost methods and assumptions. The excess of the recognized pension expense represents the amount being financed directly by OPM. This amount is considered imputed financing to the Board (see Note 8).

The Board recognizes a current-period expense for the future cost of post-retirement health benefits and life insurance for its employees while they are still working. The Board accounts for and reports this expense in a manner similar to that used for pensions, with the exception that employees and the Board do not make current contributions to fund these future benefits.

Federal employee benefit costs paid by OPM and imputed to the Board are reported as a resource on the Statement of Changes in Net Position.

#### (j) Contingencies

The Board has no material pending claims or lawsuits against it. Management believes that losses from other claims or lawsuits, not yet known to management, are possible, but would not likely be material to the fair presentation of the Board's financial statements. Thus, there is no provision for such losses in its statements. The Board has not entered into any contractual arrangements which may require future financial obligations.

#### Note 2 – Funds Balance with the U.S. Treasury

The Board's funds with the U.S. Treasury consist only of appropriated funds. The status of these funds as of September 30, 2017 and 2016 are as follows:

<b>A. Fund Balance with Treasury</b>	<u>2017</u>	<u>2016</u>
<b>General Fund</b>	<u>\$ 13,527,280.81</u>	<u>\$13,281,280.42</u>
<b>B. Status of Fund Balance with Treasury</b>		
1) <b>Unobligated Balance</b>		
a) Available	3,576,160.19	2,817,076.74
b) Unavailable	4,435,351.26	3,697,603.36
2) <b>Obligated Balance not yet Disbursed</b>	<u>5,515,769.36</u>	<u>6,766,600.32</u>
<b>Total</b>	<u>\$ 13,527,280.81</u>	<u>\$13,281,280.42</u>

#### Note 3 – Accounts Receivable, Net

The Board has no accounts receivable in FY 2017 or FY 2016. The Board has historically collected any receivables due and thus has not established an allowance for uncollectible accounts.

**Note 4 - General Property, Plant and Equipment, Net**

The Board's total cost, accumulated depreciation, and net book value for PPE for the years ending September 30, 2017 and 2016 are as follows.

2017	Equipment	Furniture & Fixtures	Software	Software in Development	Total
<b>Cost</b>	\$1,273,133.86	\$40,174.35	\$553,684.97	\$0	\$1,866,993.18
<b>Accum. Depr.</b>	(\$1,012,188.41)	(\$40,174.35)	(\$553,684.97)	\$0	(\$1,606,047.73)
<b>Net Book Value</b>	\$260,945.45	\$0	\$0	\$0	\$260,945.45

2016	Equipment	Furniture & Fixtures	Software	Software in Development	Total
<b>Cost</b>	\$1,156,328.78	\$40,174.35	\$553,684.97	\$70,425.12	\$1,820,613.22
<b>Accum. Depr.</b>	(\$831,873.73)	(\$40,174.35)	(\$553,684.97)	(\$0)	(\$1,425,733.05)
<b>Net Book Value</b>	\$324,455.05	\$0	\$0	\$70,425.12	\$394,880.17

**Note 5 – Other Assets**

The FY 2017 Other Assets amount represents an unliquidated advance.

	<u>2017</u>	<u>2016</u>
<b>Intragovernmental</b>		
Advances and Prepayments	\$ 2.00	\$ 40,513.00
Total Intragovernmental	2.00	40,513.00
Assets With The Public - Advances and Prepayments	-	-
Total Other Assets	<u>\$ 2.00</u>	<u>\$ 40,513.00</u>

**Note 6 – Liabilities Not Covered by Budgetary Resources**

The liabilities on the Board's Balance Sheets as of September 30, 2017 and 2016 include liabilities not covered by budgetary resources, which are liabilities for which congressional action is needed before budgetary resources can be provided. Although future appropriations to fund these liabilities are likely and anticipated, it is not certain that appropriations will be enacted to fund these liabilities. The composition of liabilities not covered by budgetary resources as of September 30, 2017 and 2016 is as follows:



	2017	2016
<b>Intragovernmental</b>		
Accounts Payable	\$ 455,469.50	\$ 234,147.10
Employer Contributions and Payroll Taxes Payable	\$ 151,665.85	\$ 138,687.51
Worker's Compensation	\$ 762.00	\$ 7,562.00
<b>Total Intragovernmental</b>	<u>607,897.35</u>	<u>380,396.61</u>
<b>With the Public</b>		
Accounts Payable	551,064.17	654,745.16
Accrued Funded Payroll and Leave	1,039,510.35	892,957.25
Employer Contributions and Payroll Taxes Payable	27,848.38	27,451.25
Unfunded Leave	<u>1,360,472.16</u>	<u>1,387,463.00</u>
<b>Total With the Public</b>	<u>2,978,895.06</u>	<u>2,962,616.66</u>
<b>Total Liabilities</b>	<u>\$ 3,586,792.41</u>	<u>\$ 3,343,013.27</u>
<b>Total liabilities not covered by budgetary resources</b>	\$ 1,361,234.16	\$ 1,395,025.00
<b>Total liabilities covered by budgetary resources</b>	<u>2,225,558.25</u>	<u>1,947,988.27</u>
<b>Total Liabilities</b>	<u>\$ 3,586,792.41</u>	<u>\$ 3,343,013.27</u>

**Note 7 - Intragovernmental Liabilities**

Intragovernmental liabilities arise from transactions with other federal entities. As of September 30, 2017, the Board had accounts payable intragovernmental liabilities of \$455,469.50: With the Department of Agriculture (\$11,473.75), GSA (\$37,002.39), OPM (\$14,760) and the Department of Homeland Security (\$392,233.36). The Board's FY2016 account payable intragovernmental liabilities of \$234,147.10 were with the Department of Agriculture (\$44,453.10), GSA (\$24,800), the Department of the Treasury (\$27,234), OPM (\$42,760) and the Nuclear Regulatory Commission (\$94,900). Employee benefits are the amounts owed to OPM and Treasury as of September 30, 2017 and 2016 for Federal Employees Health Benefits Program (FEHBP), Federal Employees' Group Life Insurance Program (FEGSIP), Federal Insurance Contributions Act (FICA), Federal Employees Retirement System (FERS), and Civil Service Retirement System (CSRS) contributions (reference Note 8).

**Note 8 – Federal Employee Benefits**

All permanent employees participate in the contributory CSRS or FERS. FERS employees are covered under FICA. To the extent that employees are covered by FICA, the taxes they pay to the program and the benefits they will eventually receive are not recognized by the Board's financial statements. The Board makes contributions to CSRS, FERS, and FICA and matches certain employee contributions to the thrift savings component of FERS. All of these payments are recognized as operating expenses.

In addition, all permanent employees are eligible to participate in the contributory FEHBP and FEGSIP and may continue to participate after retirement. The Board makes contributions through OPM to FEHBP and FEGSIP for active employees to pay for current benefits; these contributions are recognized as operating expenses. The Board does not report on its financial statements these programs' assets, accumulated plan benefits, or unfunded liabilities, if any, applicable to its employees. Reporting such amounts is the responsibility of OPM; however, the financing of these costs by OPM and imputed to the Board are reported on the Statement of Changes in Net Position.

Employee benefits liabilities are current (versus non-current liabilities).

**Note 9– Other Liabilities**

Other liabilities with the public for the year ended September 30, 2017 and 2016 consist of Accrued Funded Payroll and Leave, Employer Contributions and Payroll Taxes Payable, and Unfunded Leave in the amounts shown below. Other Intragovernmental liabilities consist of Employer Contributions and Payroll Taxes Payable and Worker’s Compensation Liability.

FY 2017			
	Non-Current	Current	Total
<b>Intragovernmental</b>			
Employer Contributions and Payroll Taxes Payable	\$ -	\$ 151,665.85	\$ 151,665.85
Worker's Compensation Liability		\$ 762.00	\$ 762.00
<b>Total Intragovernmental</b>	<b>-</b>	<b>152,427.85</b>	<b>152,427.85</b>
<b>Liabilities with the Public</b>			
Accrued Funded Payroll & Leave		1,039,510.35	1,039,510.35
Employer Contributions and Payroll Taxes Payable		27,848.38	27,848.38
Unfunded Leave	1,360,472.16		1,360,472.16
<b>Total Liabilities with the Public</b>	<b>1,360,472.16</b>	<b>1,067,358.73</b>	<b>2,427,830.89</b>
<b>Total Other Liabilities</b>	<b>\$ 1,360,472.16</b>	<b>\$ 1,219,786.58</b>	<b>\$ 2,580,258.74</b>

FY 2016			
	Non-Current	Current	Total
<b>Intragovernmental</b>			
Employer Contributions and Payroll Taxes Payable	\$ -	\$ 138,687.51	\$ 138,687.51
Worker's Compensation Liability		\$ 7,562.00	\$ 7,562.00
<b>Total Intragovernmental</b>	<b>-</b>	<b>146,249.51</b>	<b>146,249.51</b>
<b>Liabilities with the Public</b>			
Accrued Funded Payroll & Leave		892,957.25	892,957.25
Employer Contributions and Payroll Taxes Payable		27,451.25	27,451.25
Unfunded Leave	1,387,463.00		1,387,463.00
<b>Total Liabilities with the Public</b>	<b>1,387,463.00</b>	<b>920,408.50</b>	<b>2,307,871.50</b>
<b>Total Other Liabilities</b>	<b>\$ 1,387,463.00</b>	<b>\$ 1,066,658.01</b>	<b>\$ 2,454,121.01</b>

**Note 10 – Workers’ Compensation**

The Federal Employees’ Compensation Act (FECA) provides income and medical cost protection to covered federal civilian employees injured on the job, employees who have incurred a work-related disease, and beneficiaries of employees whose death is attributable to a job-related injury or occupational disease. Claims incurred for benefits for Board employees under FECA are administered by the Department of Labor and are paid, ultimately, by the Board.

The Board recorded an estimated liability for claims incurred, but not paid as of September 30, 2017 and 2016, as follows:

	<b>FY 2017</b>	<b>FY 2016</b>
Worker's Compensation	\$762.00	\$7,562.00

**Note 11 – Leases**

The Board has not entered into any existing capital leases and thus has incurred no liability resulting from such leases. The Board has also not directly entered into any operating leases, but does have any occupancy agreement with GSA for its headquarters space (GSA has an operating lease with the building owner, the costs of which are billed to the Board). Lease costs for office space for FY 2017 and FY 2016 amounted to \$2,985,226 and \$2,671,584, respectively. The Board entered into a new ten year lease agreement effective March 8, 2016 which is due to expire on March 7, 2026. Estimated future minimum lease payments under the terms of the lease are as follows:

<b>Fiscal Year Ending September 30</b>	<b>Payment</b>
2018	\$ 2,998,485
2019	\$ 3,097,607
2020	\$ 3,142,672
2021	\$ 3,189,086
2022	\$3,236,922
2023 and thereafter	\$11,320,601
<b>Total Estimated Future Lease Payments</b>	<b>\$26,985,373</b>

**Note 12 – Costs and Exchange Revenue**

The portion of the Board's program costs (note as the Board earns no revenue from its operations, gross and net costs are identical) related to Intragovernmental Costs and Costs with the Public are shown as follows. Intragovernmental Costs are costs incurred from exchange transactions with other federal entities (e.g., building lease payments to GSA). Costs with the Public are incurred from exchanged transactions with non-federal entities (i.e., all other program costs).

	<b>Intragovernmental Costs</b>	<b>Costs with the Public</b>	<b>Total Program Costs</b>
FY 2017	\$8,635,793.13	\$22,811,793.52	\$31,447,586.92
FY 2016	\$8,700,697.37	\$20,971,661.22	\$29,672,358.59

The Board’s program costs/net cost of operations by OMB Object Class (OC) are as follows:

OC	Description	FY 2017	FY 2016
11	Personnel Compensation	\$16,186,761.72	\$14,749,177.33
12	Personnel Benefits	\$5,644,940.79	\$5,627,682.08
13	Former Personnel Benefits	\$18,932.00	
21	Travel & Transportation of Persons	\$817,366.21	\$938,264.60
22	Transportation of Things	\$23,265.97	\$25,853.24
23	Rent, Communications, & Utilities	\$3,189,184.42	\$3,000,584.96
24	Printing & Reproduction	\$6,931.00	\$14,307.38
25	Other Contractual Services	\$4,525,958.43	\$4,475,259.09
26	Supplies & Materials	\$203,016.77	\$195,906.51
31	Acquisition of Assets	\$831,229.61	\$645,323.40
	Total	\$31,447,586.92	\$29,672,358.59

**Note 13 – Apportionment Categories of New Obligations and Upward Adjustments: Direct vs. Reimbursable Obligations**

The Board is subject to apportionment. All obligations are incurred against Category A (budgetary resources are distributed by fiscal year quarter) amounts apportioned on the latest Standard Form (SF)-132, *Apportionment and Reapportionment Schedule*.

	FY 2017	FY 2016
Direct		
Category A	30,835,345.13	30,743,021.98

**Note 14 – Undelivered Orders at the End of the Period**

The amount of DNFSB’s undelivered orders was \$3,290,213.11 and \$4,859,125.05 as of September 30, 2017 and 2016, respectively.

	Unpaid Undelivered Orders	Paid Undelivered Orders	Total Undelivered Orders
2017	\$ 3,290,211.11	\$ 2.00	\$ 3,290,213.11
2016	\$ 4,818,612.05	\$ 40,513.00	\$ 4,859,125.05

**Note 15 – Explanation of Differences Between the Statement of Budgetary Resources and the Budget of the United States Government**

SFFAS No. 7, *Accounting for Revenue and Other Financing Sources and Concepts for Reconciling Budgetary and Financial Accounting*, requires an explanation of material differences between budgetary resources available, the status of those resources and outlays as presented in the Statement of Budgetary Resources to the related actual balances published in the *Budget of the United States Government* (Budget). The Budget that will include FY 2017 actual budgetary execution information is scheduled for publication in February 2018, which will be available through OMB’s website at <http://www.whitehouse.gov/omb>. Accordingly, information

required for such disclosure is not available at the time of publication of these financial statements.

Balances reported in the FY 2016 SBR and the related President’s Budget reflected the following:

FY2016	Budgetary Resources	New Obligations & Upward Adjustments (Total)	Distributed Offsetting Receipts	Net Outlays
Statement of Budgetary Resources	\$ 37,257,702.08	\$ 30,743,021.98	\$ -	\$ 28,452,535.68
Budget of the U.S. Government	37,000,000.00	31,000,000.00	\$ -	28,000,000.00
<b>Difference</b>	<b>\$ 257,702.08</b>	<b>\$ (256,978.02)</b>	<b>\$ -</b>	<b>\$ 452,535.68</b>

The difference between the Statement of Budgetary Resources and the *Budget of the United States Government* for budgetary resources, obligations incurred and net outlays are primarily due to rounding.

**Note 16 – Reconciliation of Net Cost of Operations to Budget**

Budgetary Resources Obligated are obligations for personnel, goods, services, benefits, etc. made by the Board in order to conduct operations or acquire assets. Other (i.e., non-budgetary) financing resources are also utilized by Board in its program (proprietary) operations. For example, Spending Authority from Recoveries and Offsetting Collections are financial resources from the recoveries of prior year obligations (e.g., the completion of a contract where not all the funds were used) and refunds or other collections (i.e., funds used to conduct operations that were previously budgeted). As explained in Notes 1(i) and 8, an Imputed Financing Source from Costs Absorbed by Others is recognized for future federal employee benefits costs incurred for Board employees that will be funded by OPM. Changes in Budgetary Resources Obligated for Goods, Services, and Benefits Ordered but Not Yet Provided represents the difference between the beginning and ending balances of undelivered orders (i.e., goods and services received during the year based on obligations incurred the prior year represent a cost of operations not funded from budgetary resources). Resources that Finance the Acquisition of Assets are budgetary resources used to finance assets and not cost of operations (e.g., increases in accounts receivables or capitalized assets). Financing Sources Yet to be Provided represents financing that will be provided in future periods for future costs that are recognized in determining the net cost of operations for the present period. Finally, Components not Requiring or Generating Resources are costs included in the net cost of operations that do not require resources (e.g., depreciation and amortized expenses of assets previously capitalized).

A reconciliation between Budgetary Resources Obligated and Net Cost of Operations (i.e., providing an explanation between budgetary and financial (proprietary) accounting) is as follows (note: in prior years this information was presented as a separate financial statement (the Statement of Financing)):

**FY 2017**  
**DEFENSE NUCLEAR FACILITIES SAFETY BOARD**  
Performance and Accountability Report

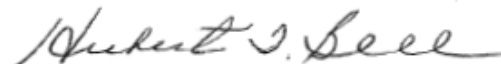
	<b>FY 2017</b>	<b>FY 2016</b>
Budgetary Resources Obligated	\$30,835,345.13	\$30,743,021.98
Spending Authority from Recoveries and Offsetting Collections	(1,460,176.48)	(1,250,689.55)
Other Resources	403,362.45	667,459.00
Changes in Budgetary Resources Obligated for Goods, Services, and Benefits Ordered but Not Yet Provided	1,568,911.94	(755,426.86)
Resources that Finance the Acquisition of Assets	(179,235.51)	(106,544.62)
Financing Sources Yet to be Provided (see Note 16)	(33,790.84)	155,960.33
Components Not Requiring or Generating Resources	313,170.23	218,578.31
Net Cost of Operations	\$31,447,586.92	\$29,672,358.59

**Appendix A - Inspector General's Assessment of the Most Serious Management and Performance Challenges Facing the Board****DEFENSE NUCLEAR FACILITIES  
SAFETY BOARD**  
WASHINGTON, D.C. 20004-2901OFFICE OF THE  
INSPECTOR GENERAL

October 18, 2017

MEMORANDUM TO: Chairman Sullivan

FROM:

  
Hubert T. Bell  
Inspector GeneralSUBJECT: INSPECTOR GENERAL'S ASSESSMENT OF THE MOST  
SERIOUS MANAGEMENT AND PERFORMANCE  
CHALLENGES FACING THE DEFENSE NUCLEAR  
FACILITIES SAFETY BOARD IN FISCAL YEAR 2018

In accordance with the *Reports Consolidation Act* of 2000, I am providing what I consider to be the most serious management and performance challenges facing DNFSB in FY 2018. Congress left the determination and threshold of what constitutes a most serious management and performance challenge to the discretion of the Inspectors General. I have defined serious management and performance challenges as *mission critical areas or programs that have the potential for a perennial weakness or vulnerability that, without substantial management attention, would seriously impact agency operations or strategic goals.*

**INTRODUCTION**

The *Consolidated Appropriations Act* of 2014 provided that notwithstanding any other provision of law, the Inspector General (IG) of the Nuclear Regulatory Commission (NRC) is authorized in 2014 and subsequent years to exercise the same authorities with respect to DNFSB, as determined by the NRC IG, as the IG exercises under the *Inspector General Act* of 1978 (5 U.S.C. App.) with respect to NRC.

**BACKGROUND**

DNFSB was created by Congress in 1988 as an independent organization within the executive branch to provide recommendations and advice to the President and the Secretary of Energy in providing adequate protection of public health and safety at Department of Energy (DOE) defense nuclear facilities. DNFSB reviews and evaluates the content and implementation of health and safety standards, as well as other requirements, relating to the design, construction, operation, and decommissioning of DOE's defense nuclear facilities.

DNFSB's enabling legislation authorizes a staff of up to 130 personnel. As of the end of FY 2017, the DNFSB is composed of five Board members and approximately 110 permanent employees and is supported by an annual budget of approximately \$31 million.

**MANAGEMENT AND PERFORMANCE CHALLENGES**

The FY 2018 management and performance challenges are related to DNFSB's organizational culture and climate, security, human capital, and internal controls. Our work in these areas indicates that program improvements are needed and DNFSB is responding positively to recommendations to improve the efficiency and effectiveness of its programs. The FY 2018 management and performance challenges are as follows:

1. Management of a healthy and sustainable organizational culture and climate.
2. Management of security over internal infrastructure (personnel, physical, and cyber security) and nuclear security.
3. Management of administrative functions.
4. Management of technical programs.

These challenges represent what the Office of the Inspector General (OIG) considers to be inherent and immediate program challenges relative to maintaining effective and efficient oversight and internal management controls. As a result, some are likely to remain challenges from year to year while others may be removed from the list as progress is made toward resolution. Challenges do not necessarily equate to problems, rather, they should be considered areas of continuing important focus for DNFSB management and staff.



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IG's Assessment of the Most Serious Management and Performance Challenges Facing the DNFSB in FY 2018

Attached is a brief synopsis of each management and performance challenge along with summaries of OIG audits and planned work that has informed and will inform our assessment of DNFSB's progress in meeting the challenges. A complete list of reports can be found at <http://www.nrc.gov/reading-rm/doc-collections/insp-gen/>.

## 1. Management of a healthy and sustainable organizational culture and climate.

Although DNFSB continues to deal with external and internal changes, agency management endeavors to continue developing a work environment built on its core values of excellence, respect, and integrity. DNFSB, like all Federal agencies, is working through issues associated with potential budget cuts and workforce reduction. Furthermore, internally DNFSB is dealing with changes in Board leadership and a reorganization. However, DNFSB has put in place initiatives to foster its work environment. For example, DNFSB's performance management system is structured to align with the Board's strategic goals and promote a performance culture that focuses on two-way communication and accountability for results.

Surveys are often a good way to measure an organization's culture and climate. In early 2015, OIG hired an independent contractor to survey DNFSB staff and managers. A theme that permeated the survey results was communication related to both DNFSB Board Members and senior leadership. Staff members' opinions highlighted a need to change the timeliness and tone of communications. Specifically, staff want more information about changes, decisions, how decisions are made, and how decisions and changes relate to the organization's mission.



In addition to areas for improvement, DNFSB staff provided positive culture and climate results in areas showing that employees are engaged—an area that needs to be sustained. DNFSB staff and managers believe strongly in the Board's goals and objectives and are willing to put in a great deal of effort beyond what is normally expected to help DNFSB succeed. Additionally, staff and managers perceive that there is high quality work being done in the business units and quality is not sacrificed in order to meet established metrics.

Key culture and climate challenges for the Board include the following:

- Ensure that organizational communication and change management contribute to a pervasive sense of organizational stability.

IG's Assessment of the Most Serious Management and Performance Challenges Facing the DNFSB in FY 2018

- Operate in a manner that is accountable to the public and achieves the mission efficiently and effectively.
- Engender through leadership and operational processes an organizational culture that strives for the highest standards of integrity, efficiency, effectiveness, transparency, fiscal responsibility, and management proficiency.

The following synopsis is an example of work that OIG will focus on in fiscal year 2018 with regard to DNFSB's culture and climate.

**DNFSB Culture and Climate Survey***(To be initiated in FY 2018)*

Culture is defined as the complex sum of the mission, characteristics, and policies of an organization, and the thoughts and actions of its individual members which establish and support nuclear health and safety as overriding priorities. Climate refers to the current work environment which affects employees' performance and behavior.

In the spring of 2015, the Office of Inspector General (OIG), assisted by a contractor, assessed the Defense Nuclear Facilities Safety Board (DNFSB) culture and climate. The survey was focused on identification of the organization's strengths and opportunities for improvement, as it continues to experience significant challenges.

This second survey of DNFSB's culture and climate will facilitate identification of the organization's strengths and opportunities for improvement, as it continues to experience significant challenges. These challenges include the implementation of new policies and oversight mechanisms, staff turnover, operating with a reduced budget, and legislation that froze Federal hiring.

The survey objectives will be to:

- Measure the Board's culture and climate to identify areas of strength and opportunities for improvement.
- Provide, where practical, benchmarks for the qualitative and quantitative findings against other organizations.

Having established a baseline with the 2015 survey, the FY 2018 survey will continue to address the unique topic of DNFSB culture and climate as it pursues these objectives.

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## **2. Management of security over internal infrastructure (personnel, physical, and cyber security) and nuclear security.**

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DNFSB must take appropriate measures to secure its personnel, facilities, and information. Criminals and foreign intelligence organizations pose obvious external threats. However, DNFSB must also protect itself against trusted insiders who could maliciously or unintentionally compromise the security of its facilities and information systems. Additionally, information security presents unique challenges by virtue of the imperative to balance information safeguards while facilitating legitimate users' access to information.

Key security challenges for DNFSB include the following:

- Ensuring that cyber security has become a crucial aspect of DNFSB's overall security posture and that cyber security protective measures keep pace with evolving threats, given the importance and sensitivity of DNFSB's activities.
- Maintaining robust internal controls over classified information and the systems that process, store, and transmit it to protect against breaches of classified information by Federal employees and contractors such as those recently occurring at the Department of Defense and the Office of Personnel Management.
- Implementing sound records management practices to ensure that DNFSB staff can respond effectively to information requests from external stakeholders and conduct agency business as transparently as possible.

The following audit synopses are examples of security and information management work that OIG will complete at DNFSB in FY 2018.

**Independent Evaluation of DNFSB's Implementation of The Federal Information Security Modernization Act of 2014 for Fiscal Year 2017***(Ongoing work)*

The Federal Information Security Modernization Act of 2014 (FISMA) outlines the information security management requirements for agencies, including the requirement for an annual independent assessment by agency Inspectors General. In addition, FISMA includes provisions such as the development of minimum standards for agency systems, aimed at further strengthening the security of the Federal Government information and information systems. The annual assessments provide agencies with the information needed to determine the effectiveness of overall security programs and to develop strategies and best practices for improving information security.

FISMA provides the framework for securing the Federal Government's information technology including both unclassified and national security systems. All agencies must implement the requirements of FISMA and report annually to the Office of Management and Budget and Congress on the effectiveness of their security programs.

There were no new findings or recommendations for FY 2016. In FY 2016, DNFSB completed implementation of all nine recommendations from the FY 2014 evaluation.

The objective of this evaluation is to perform an independent evaluation of DNFSB's implementation of FISMA and assess the effectiveness of agency information security policies, procedures, and practices.

**Audit of DNFSB's Implementation of Its Governing Legislation***(Ongoing work)*

The Defense Nuclear Facilities Safety Board (Board) is an independent organization within the executive branch chartered with the responsibility of providing recommendations and advice to the President and the Secretary of Energy regarding public health and safety issues at Department of Energy defense nuclear facilities. In operation since October 1989, the Board reviews and evaluates the content and implementation of health and safety standards, as well as other requirements, relating to the design, construction, operation, and decommissioning of the Department's defense nuclear facilities.

The Board consists of five members appointed by the President for staggered five year terms. The Board is supported by almost 110 technical and administrative staff personnel and an annual budget of approximately \$31 million.

The Board has a variety of authorities and powers for interacting with the Department of Energy. These include (1) conducting public hearings, (2) issuing subpoenas for the attendance of witnesses and production of evidence, (3) formally requesting information or establishing reporting requirements, (4) stationing on-site resident inspectors and (5) conducting special studies.

The Board and its staff annually conduct about 200 site visits of an average duration of 2-3 days. The Board communicates with the Department through trip reports, requests for information, other written correspondence, and meetings. The Board transmits a total of about 100 pieces of correspondence annually to senior Department management at headquarters and field offices.

The audit objective is to review the role and structure of DNFSB to determine whether the Board is (1) operating in accordance with applicable laws and (2) whether the role and structure is effective to facilitate the agency's mission.

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### 3. Management of administrative functions.

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DNFSB should continue exploring ways to improve its administrative functions. During FY 2017, the DNFSB workforce full time equivalent utilization averaged approximately 115 staff positions. To support the technical staff, DNFSB provides corporate support services such as contract support, human resources support, financial reporting, and information technology services. Although DNFSB has established these administrative functions to support agency staff, the agency should continue improving the skill sets and knowledge of the administrative staff carrying out these functions. In addition, DNFSB must be able to effectively recruit, train, and transfer knowledge to new hires. This includes maintaining up-to-date guidance to effectively transfer knowledge and train current staff. Lastly, DNFSB should continue to improve its information security and information technology efforts to comply with Federal requirements and meet staff needs.

Key DNFSB administrative function challenges include the following:

- Continuing to improve internal control documentation and practices for DNFSB's financial and administrative functions.
- Continuing to implement effective recruitment techniques to hire staff with the skills needed to carry out the agency mission.
- Providing current staff with the training and tools to maintain and/or improve the skills needed to effectively perform their jobs.
- Continuing efforts to keep DNFSB policies and procedures current.

The following audit report synopsis is an example of work that OIG has completed pertaining to DNFSB's administrative functions.



**Audit of DNFSB's Telework Program****DNFSB-17-A-06, July 10, 2017**

The *Telework Enhancement Act* of 2010 enacted as Public Law 111-292, requires the head of each executive agency to establish and implement a policy under which employees shall be authorized to telework. The law defines telework as a work flexibility arrangement under which an employee performs the duties and responsibilities of his or her position, and other authorized activities, from an approved worksite other than the location from which the employee would otherwise work.

The audit objectives were to determine (1) if DNFSB's telework program complies with applicable laws and regulations, and (2) the adequacy of internal controls over the program.

DNFSB's telework directive and operating procedure do not fully address current agency practices, and implementation of internal controls needs to be strengthened. Federal guidance requires agencies to follow specific provisions related to its telework program and maintain effective internal controls over its program. However, while DNFSB staff are currently following Federal guidance in practice, the recently approved directive and operating procedure need to be updated to reflect DNFSB's current practices and Federal guidance. As a result of not updating its policies, DNFSB risks potential (1) noncompliance with Federal guidance, (2) inconsistent application of the policy by supervisors, (3) inaccurate internal and external data reporting on telework, and (4) reduced Continuity of Operations (COOP) readiness.

This report makes recommendations to improve DNFSB's telework policies to ensure continued compliance with Federal requirements, and consistency in the application of the policies and recordkeeping practices. DNFSB management stated their general agreement with the recommendations in this report and did not provide formal comments.

The full report is available at: <https://www.nrc.gov/docs/ML1719/ML17191A694.pdf>

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#### 4. Management of technical programs.

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DNFSB's mission is to provide independent analysis, advice, and recommendations to the Secretary of Energy to inform the Secretary, in the role of the Secretary as operator and regulator of DOE's defense nuclear facilities, in providing adequate protection of public health and safety at such defense nuclear facilities.

DNFSB's jurisdiction covers DOE's "defense nuclear facilities." This scope includes all facilities operated by DOE that fall under the *Atomic Energy Act*. It excludes DOE's nuclear projects that are civilian in purpose and commercial nuclear facilities regulated by NRC. DNFSB's oversight jurisdiction does not extend to the U.S. Navy's nuclear propulsion program or to environmental hazards regulated by other Federal and state agencies.

When DNFSB technical staff evaluate safety at the specified DOE facilities, they must employ specific analyses of many unique processes and hazards. DOE's nuclear weapons program is technically challenging and hazardous. Complex, high-hazard operations critical to national defense include assembly and disassembly of nuclear weapons, fabrication of plutonium pits and weapon secondary assemblies, production and recycling of tritium, nuclear criticality experiments, experiments to characterize special nuclear materials under extreme conditions, and a host of activities to address the radioactive legacy of nearly 70 years of these operations. DOE's major defense nuclear facilities are each one-of-a-kind.

Key technical program challenges for the Board include the following:

- Ensure that operations are conducted in a manner that is accountable and transparent, and that directs the Board's resources toward oversight of the most significant potential safety risks in DOE's defense nuclear complex.
- Continue to attract, develop, and sustain a staff that earns the respect and confidence of the public and DOE through its expertise in the field of nuclear safety and performance of its oversight functions.

IG's Assessment of the Most Serious Management and Performance Challenges Facing the DNFSB in FY 2018

- Maintain open and effective two-way communications with DOE that enable problem solving through mutual understanding of safety issues that require action as well as factors that may constrain action to address safety issues.
  
- Ensure that internal controls are fully understood and implemented.

The following synopsis is an example of work that OIG completed at DNFSB in FY 2017 regarding the management of technical programs.

**Audit of DNFSB's Resident Inspector Program  
DNFSB 17-A-05, June 5, 2017**

DNFSB's enabling legislation authorizes it to assign staff to be stationed at any DOE defense nuclear facility to carry out the functions of the agency. DNFSB has used this authority to implement a Resident Inspector Program that serves a vital function in the agency's safety oversight of DOE's defense nuclear facilities. Employees in the program relocate to a DOE site with defense nuclear facilities and perform direct oversight of the safety of operations.

The audit objective was to determine whether the Resident Inspector Program provides for the necessary onsite oversight of DOE defense nuclear facilities to adequately fulfill DNFSB's mission.

DNFSB's Resident Inspector Program provides the necessary onsite oversight of DOE defense nuclear facilities to adequately fulfill its mission; however, opportunities for improvement exist.

DNFSB is not always able to fill vacant resident inspector positions in a timely manner. Although DNFSB should ensure continuity of needed skills and abilities, the agency does not have a formalized, systematic process for developing a pool of resident inspectors. As a result, DNFSB could face a gap in oversight at a DOE defense nuclear site.

Additionally, OIG found that DNFSB is not transparent in how it determines which defense nuclear sites will have resident inspectors. DNFSB should conduct operations transparently; however, there is no formal process for determining the number and location of resident inspectors. Consequently, a lack of a transparent process may result in a loss of stakeholder confidence.

This report made recommendations to improve DNFSB's ability to develop and prepare candidates for the resident inspector position and increase agency transparency when determining which defense nuclear sites will have resident inspectors, along with the staffing of those sites. DNFSB management stated their general agreement with the findings and recommendations in this report.

The full report is available at: <https://www.nrc.gov/docs/ML1715/ML17156A294.pdf>

IG's Assessment of the Most Serious Management and Performance Challenges Facing the DNFSB in FY 2018

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## TO REPORT FRAUD, WASTE, OR ABUSE

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### Please Contact:

Email: [Online Form](#)

Telephone: 1-800-233-3497

TTY/TDD: 7-1-1, or 1-800-201-7165

Address: U.S. Nuclear Regulatory Commission  
Office of the Inspector General  
Hotline Program  
Mail Stop O5-E13  
11555 Rockville Pike  
Rockville, MD 20852

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## COMMENTS AND SUGGESTIONS

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If you wish to provide comments on this report, please email OIG using this [link](#).

In addition, if you have suggestions for future OIG audits, please provide them using this [link](#).

**Appendix B – Summary of Financial Statement Audit and Management Assurances**

**SUMMARY OF FINANCIAL STATEMENT AUDIT**

<b>Audit Opinion</b>	<b>Unmodified</b>				
<b>Restatement</b>	<b>No</b>				
<b>Material Weaknesses</b>	<b>Beginning Balance</b>	<b>New</b>	<b>Resolved</b>	<b>Consolidated</b>	<b>Ending Balance</b>
N/A	0	0	N/A	N/A	0

**SUMMARY OF MANAGEMENT ASSURANCES<sup>2</sup>**

**Effectiveness of Internal Control over Financial Reporting (FMFIA § 2)**

<b>Audit Opinion</b>	<b>Unmodified</b>				
<b>Material Weaknesses</b>	<b>Beginning Balance</b>	<b>New</b>	<b>Resolved</b>	<b>Consolidated</b>	<b>Ending Balance</b>
N/A	0	0	N/A	N/A	0

**Effectiveness of Internal Control over Operations (FMFIA § 2)**

<b>Statement of Assurance</b>	<b>Unmodified</b>				
<b>Material Weaknesses</b>	<b>Beginning Balance</b>	<b>New</b>	<b>Resolved</b>	<b>Consolidated</b>	<b>Ending Balance</b>
N/A	0	0	N/A	N/A	0

<sup>2</sup> The Board does not provide a management assurance related to FFMIA § 4 or Section 803(a) of the Federal Financial Management Improvement Act as it obtains accounting service from a federal service provider and thus does not operate a financial management system.

**AFFIRMATION OF BOARD VOTING RECORD**

**SUBJECT: Performance and Accountability Report**

**Doc Control#2018-100-004**

The Board, with Board Member(s) Sean Sullivan, Bruce Hamilton, Jessie H. Roberson, Daniel J. Santos, Joyce L. Connery *approving*, Board Member(s) none *disapproving*, Board Member(s) none *abstaining*, and Board Member(s) none *not participating*, have voted to approve the above document on November 21, 2017.

The votes were recorded as:

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIPATING*	COMMENT	DATE
Sean Sullivan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11/21/17
Bruce Hamilton	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11/21/17
Jessie H. Roberson	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11/21/17
Daniel J. Santos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11/21/17
Joyce L. Connery	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11/21/17

\*Reason for Not Participating:

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Board Members.

  
Assistant Executive Secretary to the Board

Attachments:

1. Voting Summary
2. Board Member Vote Sheets

cc: Board Members  
OGC  
OGM Records Officer  
OTD

**DEFENSE NUCLEAR FACILITIES SAFETY BOARD**  
**NOTATIONAL VOTE RESPONSE SHEET**

**FROM:** Sean Sullivan


**SUBJECT:** Performance and Accountability Report

**Doc Control#2018-100-004**

**Approved**   *ⓧ*                        **Disapproved**                             **Abstain**       

**Recusal – Not Participating**       

**COMMENTS:**            **Below**                   **Attached**                   **None**   *ⓧ*  

  
\_\_\_\_\_  
**Sean Sullivan**  
  11/21/17    
\_\_\_\_\_  
**Date**



**DEFENSE NUCLEAR FACILITIES SAFETY BOARD  
NOTATIONAL VOTE RESPONSE SHEET**

**FROM: Bruce Hamilton**

**SUBJECT: Performance and Accountability Report**

**Doc Control#2018-100-004**

**Approved**   X                        **Disapproved**                             **Abstain**       

**Recusal – Not Participating**       

**COMMENTS:**              **Below**                     **Attached**                     **None**   X  

*Bruce Hamilton for*

\_\_\_\_\_  
**Bruce Hamilton**

  11/21/2017  

**Date**

**Member voted by e-mail dated November 21, 2017.**

**DEFENSE NUCLEAR FACILITIES SAFETY BOARD**  
**NOTATIONAL VOTE RESPONSE SHEET**

**FROM:** Jessie Roberson


**SUBJECT:** Performance and Accountability Report

**Doc Control#**2018-100-004

**Approved**  **Disapproved** \_\_\_\_\_ **Abstain** \_\_\_\_\_

**Recusal – Not Participating** \_\_\_\_\_

**COMMENTS:** **Below** \_\_\_\_\_ **Attached** \_\_\_\_\_ **None**

  
\_\_\_\_\_  
**Jessie Roberson**  
Nov 21, 2017  
\_\_\_\_\_  
**Date**

**DEFENSE NUCLEAR FACILITIES SAFETY BOARD**

**NOTATIONAL VOTE RESPONSE SHEET**

**FROM: Daniel J. Santos**

**SUBJECT: Performance and Accountability Report**

**Doc Control#2018-100-004**

Approved  Disapproved  Abstain

Recusal – Not Participating

COMMENTS: Below  Attached  None



**Daniel J. Santos**

**Date**

11/21/17

**DEFENSE NUCLEAR FACILITIES SAFETY BOARD  
NOTATIONAL VOTE RESPONSE SHEET**

**FROM: Joyce Connery**

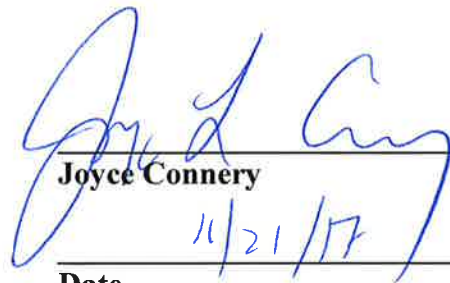
**SUBJECT: Performance and Accountability Report**

**Doc Control#2018-100-004**

**Approved**  **Disapproved**  **Abstain**

**Recusal – Not Participating**

**COMMENTS:** **Below**  **Attached**  **None**

  
\_\_\_\_\_  
**Joyce Connery**  
\_\_\_\_\_  
11/21/17  
**Date**