



**DEFENSE NUCLEAR FACILITIES
SAFETY BOARD**

WASHINGTON, D.C. 20004-2901

OFFICE OF THE
INSPECTOR GENERAL

October 3, 2016

MEMORANDUM TO: Chairman Connery

FROM: Hubert T. Bell \RA\
Inspector General

SUBJECT: INSPECTOR GENERAL'S ASSESSMENT OF THE MOST
SERIOUS MANAGEMENT AND PERFORMANCE
CHALLENGES FACING THE DEFENSE NUCLEAR
FACILITIES SAFETY BOARD

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 the Defense Nuclear Facilities Safety Board (DNFSB) in Fiscal Year (FY) 2017. 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, 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 regarding public health and safety issues 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 is supported by approximately 110 technical and administrative staff personnel and an annual budget of approximately \$31 million. DNFSB's enabling legislation authorizes a staff of up to 130 personnel in FY 2017.

MANAGEMENT AND PERFORMANCE CHALLENGES

The FY 2017 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 2017 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; others may be removed from the list as progress is made toward resolution. Challenges do not necessarily equate to problems.

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.

In the spring of 2015, OIG hired an independent contractor to survey DNFSB staff and managers. Of the 107 employees invited to participate, 79 completed surveys, for an overall return rate of 74 percent. This return rate was a great first year percentage, being sufficient to provide a reliable and valid measure of the attitudes and perceptions of DNFSB staff and managers.

A theme that permeated the survey results is Communication as related to both DNFSB Board Members and senior leadership. Staff members' opinions highlight a need to change the timeliness and tone of communications. Specifically, staff want more information about changes, decisions, the decision-making process, and how decisions/changes relate to the organization's mission.

Another area that the results highlighted is Change Management. DNFSB experienced several changes in leadership and processes, and employees have struggled to deal with these changes. In particular, employees felt the changes were not well communicated or implemented and the pace of change was too fast.

Other notable results further identify where improvements can be made. For example, staff perceive DNFSB as not attracting and retaining the right talent. Results also show that improvements can be made in the areas of respectfulness and professionalism within the organization. Specifically, the survey identified a desire by employees to increase the level of mutual respect and professionalism between staff and management. Furthermore, survey results pertaining to effective operating procedures and employees having the necessary tools and resources to perform their jobs were quite low and suggest that further attention should be placed on these areas as well.

In addition to areas for improvement, the survey also identified positive culture and climate results. For example, there is a high level of employee engagement as illustrated by employees' strong belief in the Board's goals and objectives and their willingness 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 within individual business units and quality is not sacrificed in order to meet established metrics.

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

- Ensuring that organizational communication and change management contribute to a pervasive sense of organizational stability.
- Operating in a manner that is accountable to the public and achieves the mission in an efficient and effective manner.
- Engendering 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 audit report synopsis is an example of work that OIG will focus on in fiscal year 2017 with regard to DNFSB's culture and climate.

Audit of DNFSB's Employee Concerns Program

(To be initiated in FY 2017)

DNFSB's vision is to efficiently and effectively accomplish the safety oversight needed to provide timely advice to the Secretary of Energy in assuring public health and safety at DOE's defense nuclear facilities while exhibiting the highest standards of public service. One of the ways that DNFSB plans to fulfill this is through leadership and operational processes within an organizational culture that strives for the highest standards of integrity, efficiency, effectiveness, transparency, fiscal responsibility, and management proficiency. DNFSB employees are the foundation of this plan.

As such, addressing employee concerns is critical. Employee concerns can manifest in a number of ways and having policies and programs, such as an open door policy and a differing views program, will help improve the alignment of human capital with the Board's mission, goals, and objectives. An effective employee concerns program will champion an open, collaborative working environment that encourages all employees to promptly voice differing views without fear of retaliation. It will also serve to offer advice and guidance to employees on the various ways to raise and pursue mission-related differing views.

The audit objective is to determine if DNFSB has an employee concerns program in place to help it efficiently and effectively accomplish its safety mission.

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

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 has completed at DNFSB in FY 2016.

**Audit of the Defense Nuclear Facilities Safety Board's Information Security Program
DNFSB-16-A-02, October 28, 2015**

DNFSB has appropriate security controls for classified information and some types of sensitive unclassified information such as Personally Identifiable Information. However, opportunities exist to improve DNFSB's internal information security guidance, and to improve access controls over Unclassified Controlled Nuclear Information (UCNI) that is stored on DNFSB's internal SharePoint site.

Federal guidance recommends that documentation of internal controls should be clear and readily available. However, DNFSB's main information security guidance is incomplete and does not address key points for protecting sensitive unclassified information. This occurs because DNFSB has not updated its primary information security guidance since May 2000. DNFSB staff need current and complete guidance to help them carry out their information security responsibilities.

Additionally, Federal regulations require a "need to know" as a condition for routine access to UCNI. However, general computer network access rights allow users to access and manipulate some UCNI documents saved on the agency's internal SharePoint site without establishing a need to know. This occurs because technical controls are not required to manage access to UCNI documents stored on SharePoint. As a result, security-related information is at greater risk of unauthorized disclosure or compromise.

DNFSB management generally agreed with the report's findings and recommendations and is taking action to address the recommendations.

The full report is available at <http://www.nrc.gov/docs/ML1530/ML15301A746.pdf>

Independent Evaluation of DNFSB's Implementation of the Federal Information Security Modernization Act of 2014 for Fiscal Year 2015

DNFSB-16-A-03, November 12, 2015

In January 2013, DNFSB issued a directive and operating procedure for implementing its information systems security program (ISSP). The FY 2014 independent evaluation of DNFSB's implementation of the *Federal Information Security Modernization Act* found that the majority of the policies and procedures supporting DNFSB's ISSP are draft documents and, therefore, have not been fully implemented. The FY 2014 independent evaluation identified the following ISSP weaknesses, resulting in recommendations:

1. Continuous monitoring is not performed as required.
2. The security assessment and authorization of DNFSB's general support system did not follow the NIST risk management framework.
3. DNFSB's plan of action and milestones management is inadequate.
4. Oversight of systems operated by contractors or other agencies is inadequate.

DNFSB has made some progress in addressing the 2014 findings. There were no new findings for FY 2015.

DNFSB management generally agreed with the report's findings and recommendations and is taking action to address the recommendations.

The full report is available at: <http://www.nrc.gov/docs/ML1531/ML15316A491.pdf>

3. Management of administrative functions.

DNFSB should continue exploring ways to improve its administrative functions. During FY 2016, the DNFSB workforce averaged approximately 105 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, Board members and staff have expressed concerns about 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:

- Improving 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.
- Keeping DNFSB policies and procedures current.

The following audit report synopses are examples of work that OIG has completed, or plans to complete in FY 2017, pertaining to DNFSB's administrative functions.

**Audit of DNFSB's Process for Developing, Implementing, and Updating Policy Guidance
DNFSB-16-A-05, June 29, 2016**

OIG conducted an audit to (1) determine if DNFSB has an established process for developing, implementing, and updating policy guidance for staff; (2) determine if DNFSB implemented the recently issued operating procedures at the Board member level; and (3) identify any opportunities to improve these processes.

Overall, DNFSB has an established process for developing, implementing, and updating directives and supplementary documents for staff. DNFSB has also recently issued and implemented Board Procedures to guide Board Member processes. However, opportunities remain to further improve the management of DNFSB's directives program. Specifically, the audit revealed that there is not a uniform awareness or understanding among involved staff of directive program guidance including that which addresses timeliness and prioritization expectations for document creation and review. Furthermore, guidance does not address the role of the OIG in the draft directive review process.

DNFSB management generally agreed with the report's findings and recommendations and is taking action to address the recommendations.

The full report is available at: <http://www.nrc.gov/docs/ML1618/ML16181A208.pdf>

Audit DNFSB's Human Resources Process for Filling Vacancies

(To Be Initiated in FY 2017)

The Office of Personnel Management (OPM) requires agencies to establish and maintain a system of accountability for merit system principles. Agencies are further required to use guidance, measures, and metrics and to identify the measures used in agency accountability policies. OPM established the Human Capital Assessment and Accountability Framework (HCAAF) system as standards, including appropriate metrics, for evaluators to use when assessing human capital management by Federal agencies. HCAAF's system components are (1) Strategic Alignment System, (2) Leadership/Knowledge Management System, (3) Results-Oriented Performance Culture system, (4) Talent Management System, and (5) Accountability System. Human resources evaluators use agency processes and activities outlined in standards for the HCAAF System to ensure that over time, the agency manages people efficiently and effectively in accordance with merit system principles, veterans' preference, and related public policies.

OIG's 2015 DNFSB Culture and Climate Survey conducted by OIG suggests that DNFSB's process for hiring and retaining staff needs improvement. Specifically, there is a perception among DNFSB staff that the organization is not attracting and retaining the right talent. Moreover, survey results reflect that 38 percent of DNFSB employees plan to leave the agency.

The audit objective will be to determine if DNFSB has identified mission-critical occupations and competencies and developed strategies to hire and retain staff in accordance with Federal standards.

4. Management of technical programs.

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* and have a function related to national defense. It excludes DOE's nuclear projects that are civilian in purpose and commercial nuclear facilities regulated by the Nuclear Regulatory Commission. 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 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. As such DNFSB must develop and maintain strong technical skills, knowledge, and programs in order provide sufficient and comprehensive oversight of DOE's unique facilities.

Key technical program challenges for the Board include the following:

- Ensuring 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.

- Developing and sustaining 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.
- Maintaining 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.
- Ensuring that internal controls are fully understood and implemented.

The following synopsis is an example of work that OIG completed at DNFSB in fiscal year 2016 regarding the management of technical programs.

Audit of DNFSB's Oversight of Nuclear Facility Design and Construction Projects

DNFSB-16-A-06, July 6, 2016

DNFSB meets the requirement to oversee nuclear facility construction projects as mandated by its enabling legislation. However, its approach to design and construction-specific oversight is not clearly defined and involved DNFSB staff are not well aligned with respect to their roles and responsibilities.

The audit found that DNFSB's approach to oversight of nuclear facility design and construction projects is not systematic and could therefore be improved. To meet the intent behind its enabling legislation, DNFSB should oversee nuclear construction projects with a consistently applied graded approach that is informed by formalized guidance, training, and lessons learned specific to construction oversight. The audit also identified misalignment between DOE, National Nuclear Security Administration, and DNFSB regarding identification and communication of significant safety issues. These conditions potentially affect DNFSB's effectiveness and efficiency as an oversight body. Specifically, there is potential for:

- Non-safety significant issues and safety significant issues to be prioritized equally.
- Risk that potentially safety significant issues will be overlooked.
- Previously closed issues to be reopened.
- DNFSB resources not being used in the most effective and efficient manner.

DNFSB's non-systematic method for construction oversight also contributes to a diminishing confidence among stakeholders who perceive DNFSB as contributing to cost overruns, project delays, or stoppages of nuclear facility construction projects.

DNFSB management generally agreed with the report finding and recommendations and is taking action to address the recommendations.

The full report is available at: <http://www.nrc.gov/docs/ML1618/ML16188A213.pdf>.

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