



Department of Energy
National Nuclear Security Administration
Washington, DC 20585



August 18, 2008

The Honorable A. J. Eggenberger
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, N.W., Suite 700
Washington, D.C. 20004-2901

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Dear Mr. Chairman:

Enclosed for your information is the approved National Nuclear Security Administration (NNSA) Office of Defense Programs (NA-10) Corrective Action Plan (CAP) in response to the Chief, Defense Nuclear Safety (CDNS) review report that was issued in November 2007. The CAP, originally due in January 2008, was delayed until after approval of the NA-10 reorganization to ensure that it reflected the new organizational structure. The NA-10 Reorganization Plan was approved on May 6, 2008. The CAP, approved by the NNSA Administrator on July 8, 2008, is intended to address the seven management concerns, as well as all other findings and weaknesses, identified in the CDNS review report.

If you have any questions about the CAP, please contact me or Mr. James McConnell of the Office of Safety at (202) 586-4379.

Sincerely,

Gerald L. Talbot, Jr.
Assistant Deputy Administrator
for Nuclear Safety and Operations

Enclosure

cc: M. Whitaker, Jr., HS-1.1



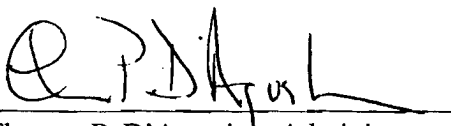
**Chief Defense Nuclear Safety (CDNS)
Biennial Review of
Nuclear Safety Performance
National Nuclear Security Administration (NNSA)
Office of Defense Programs (NA-10)**

**Corrective Action Plan (CAP)
for the
Management Concerns**

Revision 0

June 2008



Approved by: 
Thomas P. D'Agostino, Administrator

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Introduction

The CDNS conducted a biennial review of nuclear safety performance of the NNSA Office of Defense Programs (NA-10) in October 2007. The memorandum transmitting the report included an action for NA-10 to develop a CAP to address the management concerns from the report and submit the CAP to the Administrator through the Central Technical Authority (CTA) for approval. The transmittal memorandum also included an action for NA-10 to update the CTA on a quarterly basis on the status of corrective actions.

The management concerns identified in the report are as follows:

- NA-10 has not implemented DOE O 226.1A, *Implementation of Department of Energy Oversight Policy*, nor has NNSA as a whole. NNSA senior management has already recognized this issue and a number of ongoing efforts are addressing it, including the Line Oversight Contractor Assurance System (LOCAS) project and a Federal oversight project initiated by the NNSA Administrator. However, there is no current implementation plan for NA-10 or for NNSA Headquarters that would bring NNSA into compliance with this Order, and the ongoing initiatives have not yet identified specific actions and deliverables that would result in compliance with the Order.
- Several NA-10 Senior Technical Safety Managers, including the most senior NA-10 managers, are overdue for initial qualification or requalification. The Federal Training and Qualification Program (TQP) is not institutionalized within NA-10, and a number of important aspects are not implemented. Senior managers do not consistently demand and demonstrate effective maintenance of TQP qualifications.
- NA-10 does not have a comprehensive issues management system available for its use. As a result, some issues, including Headquarters-responsible issues from site biennial reviews, have not been addressed. An effective issues management system must be available to track and ensure adequate closure of corrective actions resulting from self-assessments, operational awareness activities, independent reviews, or external reviews.
- Although some Integrated Safety Management (ISM) Core Functions and Guiding Principles have been implemented, NA-10 has not comprehensively and systematically developed an ISM System Description, as required for Secretarial Offices by DOE M 450.4-1, *Integrated Safety Management System Manual*.
- NA-10 has not developed a Functions, Responsibilities, and Authorities document as required for Secretarial Offices by Chapter 8 of DOE M 411.1-1C. There is no documented, systematic analysis of NA-10 responsibilities, particularly those that are executed by other offices. As a result, some NA-10 responsibilities are not being performed.

- NA-10 management has not conducted a detailed analysis to determine the staffing levels and skills mix needed to execute the full range of the organization's functions, responsibilities, and authorities. NA-10 nuclear safety review responsibilities are predominantly carried out by a single, highly-qualified individual. A staff of several similarly qualified individuals would actually be required to systematically perform, document, and use the results from the full scope of nuclear safety reviews. The team concluded that NA-10 is not adequately staffed in the safety basis, quality assurance, startup and restart, directives, training and qualification, and line management oversight functional areas, and may not be adequately staffed for other functions.
- NA-10 has not developed written procedures for executing its many and diverse nuclear safety functions. Individuals who routinely perform these functions clearly understand, in most cases, the processes they follow, due to their experience. However, several situations were identified in which well-defined procedural requirements could have helped to ensure a more systematic review, thorough coordination, and better documentation of staff analyses.

NA-10 Approach for Corrective Action Plan

For each of the management concerns identified above, a brief evaluation was performed, including a discussion with responsible NNSA staff and management, to identify the possible causes for the management concern. Then, corrective actions are identified to address the identified causes, including responsible individuals and due dates. Also, specific findings and weaknesses from the CDNS report, if applicable, are linked to corrective actions for the management concerns.

Following the management concerns, the remaining findings and weaknesses from the CDNS report are listed. For each finding and weakness, planned actions are listed with corresponding action owners and estimated completion dates. For some findings and weaknesses, no actions are planned at this time. Opportunities for improvement will be considered in the completion of corrective actions associated with findings and weaknesses.

With respect to staffing in the areas of environment, safety, and health (ES&H) and quality assurance (QA), NA-10 reorganized effective March 1, 2008, including the establishment of the position of Director, Office of Safety, under the Assistant Deputy Administrator for Nuclear Safety & Operations. The Director of the Office of Safety is supported by staff from the Chief, Defense Nuclear Safety, and the former Office of ES&H and QA (NA-173).

The Director, Office of Safety, will be responsible for submitting quarterly status reports on corrective actions to the CTA. These quarterly reports will continue until completion of all management concern-related corrective actions.

Management Concern #1 – Implementation of DOE O 226.1A

NA-10 has not implemented DOE O 226.1A, *Implementation of Department of Energy Oversight Policy*, nor has NNSA as a whole. NNSA senior management had previously recognized this issue and a number of ongoing efforts are addressing it, including the Line Oversight Contractor Assurance System (LOCAS) project and a Federal oversight project initiated by the NNSA Administrator. However, there is no current implementation plan for NA-10 or for NNSA Headquarters that would bring NNSA into compliance with this Order, and the ongoing initiatives have not yet identified specific actions and deliverables that would result in compliance with the Order.

Discussion

On November 7, 2006, the Deputy Administrator for Defense Programs approved the Fiscal Year (FY) 2007 NNSA Headquarters DOE O 226.1 Implementation Plan and the Initial Headquarters Line Management Oversight Plan for ES&H and Emergency Operations. The DOE O 226.1 Implementation Plan was developed to close identified gaps in NNSA Headquarters implementation of DOE O 226.1. However, it is unclear whether all of the actions identified in the plan have been completed or are even still appropriate. Both plans noted above were to be updated for FY 2008 but updates have not yet been issued.

In March 2007, NA-10 issued an oversight assessment schedule for Calendar Year (CY) 2007 as part of the Oversight Plan noted above. However, the CY 2008 NA-10/NA-2.1/NA-3.6 Oversight Assessment Plan has not yet been issued.

The Administrator has six ongoing special focus areas to address critical areas in CY 2008. One of the special focus areas is ensuring the overall effectiveness of the interface between Federal oversight and contractor assurance systems for nuclear safety, physical security, and cyber security. The NNSA team assigned to this special focus area in the area of nuclear safety has identified five specific issues related to nuclear safety and actions to address these issues. One of these actions is to complete the development and implementation of an NNSA Supplemental Directive on Line Oversight and Contractor Assurance. The NNSA Supplemental Directive will include requirements for NNSA Headquarters line oversight of nuclear safety, as well as ES&H and other functional areas.

A key component in the implementation of the NNSA Supplemental Directive for NNSA Headquarters will be the development of Federal Management Plans (FMP) that document the implementation of the supplemental directive and DOE O 226.1A in functional areas, including nuclear safety and ES&H that is consistent with LOCAS and uses LOCAS tools. Included with the FMP for each functional area will be an associated assessment and review schedule.

The Office of Safety will develop a criteria, review, and approach document (CRAD) for the implementation of Contractor Assurance Systems that can be used by Site Offices and contractors. A NNSA Core Team will then use the CRAD to validate the implementation of Contractor Assurance Systems at each NNSA Site.

A key assumption for completing the corrective actions for Management Concern #1 is the availability of adequate resources within the Office of Safety and other responsible NNSA organizations (see the response to Management Concern #6).

Therefore, the following apparent cause needs to be addressed.

Apparent Cause: NA-10 has not updated its implementation plan for DOE O 226.1A. Maintenance of this implementation plan has not received sufficient management attention. The prior implementation plan for DOE O 226.1 included three documents: a) the Fiscal Year 2007 NNSA Headquarters DOE O 226.1 Implementation Plan; b) the Initial Headquarters Line Management Oversight Plan for ES&H and Emergency Operations; and c) the NA-10 Oversight Assessment Schedule – Calendar Year 2007.

Corrective Action 1-1

Action: Issue the CY 2008 NA-10/NA-2.1/NA-3.6 Assessment and Review Schedule that will identify NNSA Headquarters oversight activities of field nuclear safety and ES&H-related programs and activities, e.g., criticality safety oversight, review of implementation of specific administrative controls at NNSA sites, and review of cognizant system engineer program at Los Alamos National Laboratory.

Action Owner: Assistant Deputy Administrator for Nuclear Safety and Operations (NA-17)

Due Date: July 18, 2008

Corrective Action 1-2

Action: In collaboration with applicable functional area managers, issue Supplemental Directive on NNSA Line Oversight and Contractor Assurance System.

Action Owner: Director, Office of Safety (NA-171)

Due Date: September 30, 2008

Corrective Action 1-3

Action: Develop CRAD for Contractor Assurance System validation by NNSA.

Action Owner: Director, Office of Safety (NA-171)

Due Date: December 31, 2008

Corrective Action 1-4

Action: In collaboration with NA-3.6, assess the effectiveness of implementation of Contractor Assurance Systems at NNSA Sites.

Action Owner: Director, Office of Safety (NA-171)

Due Date: December 31, 2009

CDNS Issues Addressed by Corrective Actions 1-1 through 1-4: LO.1-1/F

Other Oversight-Related Issues from CDNS Review of NA-10

Safety Basis

SB.1-1/F: NA-10 reliance on the CDNS (NA-2.1) biennial reviews as the primary formal oversight activities for safety basis is inconsistent with the requirements imposed on DOE Headquarters line management in DOE O 226.1A.

See Corrective Actions 1-1 through 1-4. Also, see Corrective Action 4-3 where the Management System Description will describe the role of CDNS biennial reviews in line oversight of the safety basis functional area.

Startup and Restart of Nuclear Facilities

SNF.1-1/F: NA-10 has not established a clear understanding of the expected degree of direct Headquarters oversight of field readiness assessment and review; oversight has not been systematically planned and performed; and oversight products and their purpose are not defined.

See Corrective Actions 1-1 and 4-3.

Management Concern #2 – Training and Qualification

Several NA-10 Senior Technical Safety Managers, including the most senior NA-10 managers, are overdue for initial qualification or requalification. The Federal Training and Qualification Program (TQP) is not institutionalized within NA-10, and a number of important aspects are not implemented. Senior managers do not consistently demand and demonstrate effective maintenance of TQP qualifications.

Discussion

In January 2008, partly in response to the CDNS Review of NA-10, the Office of Technical Services at the Service Center completed a study of the adequacy of the technical staffing and qualification of personnel in NA-10 to meet assigned functions, responsibilities, and authorities. The current staffing and qualifications in NA-10 were compared to the requirements of the NNSA Technical Qualification Program (TQP) Plan and DOE M 426.1-1A, *Federal Technical Capability Manual*.

The general conclusion from the study was as follows:

“A comprehensive NNSA HQ annual workforce analysis implementing process and owner reporting to NA-2 is needed in support of the NNSA HQ/Lead FTCP Agent in NA-3.6, integrating NA-10 elements, as well as NA-20 elements, with NA-40, NA-50, NA-60, and NA-70. A close interface with the DOE Human Capital Officer (HCO) and the DOE FTCP is also critical.”

The study also provided specific conclusions with respect to NA-10 in many cases not having sufficient qualified technical staff to meet assigned functions, responsibilities, and authorities.

On March 11, 2008, the NNSA Central Technical Authority (CTA) requested that the NNSA Deputy Administrators take steps to implement the TQP in their organizations including the following:

1. Designate a senior technical manager as the TQP Coordinator for the organization;
2. Within 30 days of receiving the TQP Status Report for the organization, submit to the CTA the TQP Plan, with milestones, on how the organization will achieve full compliance by December 31, 2008, including completion of overdue qualifications or requalifications; and
3. Review TQP metrics and implementation progress with the CTA on a quarterly basis.

The CTA also emphasized the importance of accurate designation of TQP participants and completion of TQP initial qualification and requalification in a timely and effective manner.

The following cause needs to be addressed.

Apparent Cause: NA-10 did not provide sufficient management attention to ensure that NA-10 had sufficient numbers of qualified staff to meet assigned functions, responsibilities, and authorities and meet the requirements of the NNSA TQP Plan and DOE M 426.1-1A.

Corrective Action 2-1

Action: Designate a senior technical manager within NA-10 as the TQP Coordinator for NA-10.

Action Owner: Assistant Deputy Administrator for Strategic Planning, Resources and Integration (NA-14)

Due Date: Completed – June 10, 2008

Corrective Action 2-2

Action: Submit to the CTA an NA-10 TQP Plan, with milestones, on how the organization will achieve full compliance, including completion of overdue qualifications and re-qualifications. This plan needs to 1) establish NA-10 responsibilities and define the TQP process in NA-10; 2) determine qualification needs and establish qualification requirements for NA-10; and 3) define compensatory measures where qualified staff is not yet available.

Action Owner: Assistant Deputy Administrator for Strategic Planning, Resources and Integration (NA-14)

Due Date: September 30, 2008

Corrective Action 2-3

Action: Review TQP metrics and implementation progress with the CTA on a quarterly basis.

Action Owner: Assistant Deputy Administrator for Strategic Planning, Resources and Integration (NA-14)

Due Date: The first quarterly review is due by December 31, 2008.

CDNS Issues Addressed by Corrective Actions 2-1 through 2-3: T&Q.1-1/F, T&Q.1-2/F, T&Q.1-5/F, T&Q.1-6/F, T&Q.1-7/F, T&Q.1-1/W and T&Q.1-2/W

Other Training-Related Issues from CDNS Review of NA-10

Training and Qualification

Issue T&Q.1-3/F: An NA-10 Training Plan was not developed in FY07 as required by DOE O 360.1B para. 4.c, and DOE M 360.1-1B, Chapter I, item 5. The associated annual training summary report, required by DOE M 360.1-1B Chapter I, item 3.b, which measures progress against the training plan, has not been completed.

Corrective Action 2-4

Action: The Office of Strategic Planning, Resources and Integration will develop an NA-10 TQP-related Training Plan by collecting the separate Individual Development Plans from the respective NA-10 offices which have personnel in the TQP. The Training Plan will address critical needs or those immediate training needs which, when met, will be effective in meeting initial qualification or requalification TQP requirements for Fiscal Year 2009.

Action Owner: Assistant Deputy Administrator for Strategic Planning, Resources and Integration (NA-14)

Due Date: September 30, 2008

Corrective Action 2-5

Action: Subsequent to the issuance of the approved NA-10 Training Plan, the Office of Strategic Planning, Resources and Integration, with support from DOE Enterprise Training Services, will contact the respective NA-10 offices which have personnel in the TQP, assess progress against the training plan, and generate the annual training summary report. This will constitute the NA-10 self assessment of TQP-related Training Program.

Action Owner: Assistant Deputy Administrator for Strategic Planning, Resources and Integration (NA-14)

Due Date: October 31, 2008

Issue T&Q.1-4/F: The NA-10 Federal Training Program does not include a provision for self-assessments of the program as a whole, as required by DOE O 360.1B, section 4.1. Self-assessments of the overall program have not been conducted.

Corrective Action 2-6

Action: Subsequent to the issuance of the approved NA-10 Training Plan, the Office of Strategic Planning, Resources and Integration, with support from DOE Enterprise Training Services, will assess progress against the training plan, and generate the annual training summary report. This will include a management self-assessment to examine and demonstrate how the training plan goals are being achieved and that corrective actions and opportunities for improvement are being identified and implemented.

Action Owner: Assistant Deputy Administrator for Strategic Planning, Resources and Integration (NA-14)

Due Date: December 31, 2008

Management Concern #3 – Issues Management System

NA-10 does not have a comprehensive issues management system available for its use. As a result, some issues, including Headquarters-responsible issues from site biennial reviews, have not been addressed. An effective issues management system must be available to track and ensure adequate closure of corrective actions resulting from self-assessments, operational awareness activities, independent reviews, or external reviews.

Discussion

The lack of an NNSA Headquarters issues management system was identified during the recent CDNS review of NA-10, as well as during an Office of Environment, Safety and Health Evaluations (HS-64) assessment of the NNSA Livermore Site Office and Lawrence Livermore National Laboratory (LLNL). Corrective actions to address the finding included revisiting the need for a NNSA Headquarters issues management system and formally documenting the decision, as well as developing an implementation plan based upon the decision. In 2006, the NNSA Management Council chose PEGASUS as its corporate solution for issue and action tracking. Subsequent to this decision, most of the NNSA Site Offices implemented selected modules of the PEGASUS Program for their individual offices; however, no enterprise-wide solution was available. On December 18, 2007, the NNSA Principal Deputy Administrator issued a memo stating that a modified version of PEGASUS will be the NNSA enterprise solution for issues management. The memo also requested that NNSA Headquarters and Site Offices designate a representative to be on a PEGASUS Change Control Board which will be responsible for developing policies and procedures, as well as prioritizing and recommending changes. Subsequent to this decision, the NNSA Principal Deputy Administrator directed the Service Center to work with NA-10 to deploy a current version of Pegasus to provide NA-10 with a near-term solution for issues management. From discussions with NNSA Service Center personnel, PEGASUS will initially be used at NNSA Headquarters only for tracking actions and issues.

The following apparent and contributing causes need to be addressed.

Apparent Cause: Meeting the DOE O 226.1A requirement for a structured NNSA Headquarters issues management process has not received sufficient management attention.

Contributing Cause: The NNSA Management Council previously disapproved an NNSA Headquarters issues management system without identifying an alternative process/system for issues management in NNSA Headquarters. Also, NNSA Headquarters has not implemented requirements for assessments and self-assessments in all Headquarters organizations.

Corrective Action 3-1

Action: Establish positions to manage and implement the NNSA issues management system for safety issues and ensure NNSA Headquarters' compliance with applicable self-assessment requirements.

Action Owner: Director, Office of Safety (NA-171)

Due Date: July 31, 2008

Corrective Action 3-2

Action: Deploy the legacy version of PEGASUS to NA-10.

Action Owner: Assistant Deputy Administrator for Strategic Planning, Resources and Integration (NA-14) with assistance from the NNSA Service Center (Maggie Wood – lead)

Due Date: July 31, 2008

Corrective Action 3-3

Action: Develop an interim process description for action tracking and issues management for NNSA Headquarters staff of the Assistant Deputy Administrator for Nuclear Safety and Operations. Deliver associated training to the affected NNSA Headquarters staff.

Action Owner: Director, Office of Safety (NA-171)

Due Date: August 29, 2008

Corrective Action 3-4

Action: Develop and implement a formal NA-10 action and issue tracking system based upon the Y-12 Site Office-developed PEGASUS system for NNSA.

Action Owner: Assistant Deputy Administrator for Strategic Planning, Resources and Integration (NA-14) with assistance from the NNSA Service Center (Maggie Wood – lead)

Due Date: January 30, 2009

CDNS Issues Addressed by Corrective Actions 3-1 through 3-4: F&I.1-2/F

Management Concern #4 – Integrated Safety Management System

Although some ISM Core Functions and Guiding Principles have been implemented, NA-10 has not comprehensively and systematically developed an ISM System Description, as required for Secretarial Offices by DOE M 450.4-1, *Integrated Safety Management System Manual*.

Discussion

At the time of the CDNS review, the NNSA Headquarters ISM System Description was not yet issued. DOE M 450.4-1 requires that Secretarial Office ISM system descriptions effectively be issued by May 1, 2007. The NNSA Headquarters ISM System Description was approved by the Administrator on October 23, 2007. Included in the NNSA Headquarters ISM System Description are tables documenting how each of the seven ISM Guiding Principles are implemented. DOE M 450.4-1 also requires that full implementation of Secretarial Office ISM System Descriptions be achieved within two years of issuance of the approved ISM System Description, i.e., by October 23, 2009 for NNSA Headquarters. Per Appendix B of the ISM System Description, the following revised actions support implementation:

1. Perform a NA-10 Gap Analysis for NNSA Headquarters ISM implementation (January 2008 – subsumed in this document June 2008);
2. Develop and implement mechanisms to remedy NA-10 NNSA HQ ISM Gap Analysis results (March 2008 – expected completion in February 2009 through Corrective Actions 1-1, 1-2, 2-2, 2-4, 2-5, 2-6, 3-3, 3-4, 4-3, 5-1, 6-1, 7-2, 7-3, 7-5, and corrective actions for other CDNS issues in the areas of Directives, Engineering and Project Management, Emergency Management, Feedback and Improvement, Nuclear Explosives Safety and Quality Assurance); and
3. Review implementation of ISM System at NNSA HQ (August 2008 - expected completion in September 2008 through Corrective Action 4-4).

The following apparent cause needs to be addressed.

Apparent Cause: Meeting the DOE M 450.4-1 requirement for a NNSA Headquarters ISM System Description did not receive sufficient management attention.

Corrective Action 4-1

Action: Complete the development and approval of an NNSA Headquarters ISM System Description, as required by DOE M 450.4-1.

Action Owner: Senior Advisor for Environment, Safety and Health (NA-3.6)

Due Date: Completed on October 23, 2007

Corrective Action 4-2

Action: Perform an NA-10 Gap Analysis for NNSA Headquarters ISM implementation to support a revision to the NNSA Headquarters ISMS Description. This NA-10 Gap Analysis has been subsumed in the NA-10 CAP for the CDNS Review of NA-10.

Action Owner: Director, Office of Safety (NA-171)

Due Date: Completed upon approval of this CAP

Corrective Action 4-3

Action: Develop a Management System Description for the Office of Nuclear Safety and Operations.

Action Owner: Director, Office of Safety (NA-171)

Due Date: September 30, 2008

Corrective Action 4-4

Action: With support from the Office of Safety, review implementation of the ISM System at NNSA Headquarters (annual ISM effectiveness review and annual ISM declaration per DOE M 450.4-1) as described in the NNSA Headquarters ISMS Description dated October 23, 2007.

Action Owner: Senior Advisor for Environment, Safety and Health (NA-3.6)

Due Date: September 30, 2008

Corrective Action 4-5

Action: Update the NNSA Headquarters ISM System Description.

Action Owner: Senior Advisor for Environment, Safety and Health (NA-3.6)

Due Date: December 31, 2008

CDNS Issues Addressed by Corrective Actions 4-1 through 4-5: ISMS.1-4/F**Other ISMS-Related Issues from CDNS Review of NA-10****Integrated Safety Management Systems**

ISMS.1-2/W: There is no specific commitment in the draft ISM System Description, Appendix B that clearly correlates to the annual ISM declaration to the CTA required by DOE M 450.4-1.

See Corrective Action 4-4.

ISMS.1-3/W: The objectives, measures, and commitments incorporated into the annual evaluation plans have not been consolidated and provided to the NNSA Central Technical Authority, and NA-10 has no procedural process to satisfy this aspect of the DOE M 450.4-1 requirements.

Corrective Action 4-6

Action: Develop and provide annual safety performance objectives, measures, and commitments to the Central Technical Authority and build into the planning, programming, budgeting, and evaluation process, including management and operating contractor performance evaluation plans. The Director, Office of Safety and the Director, Office of Facility and Infrastructure Acquisition and Operation will provide support for this action.

Action Owner: Senior Advisor for Environment, Safety and Health (NA-3.6)

Due Date: December 31, 2008

Management Concern #5 – Functions, Responsibilities, and Authorities

NA-10 has not developed a Functions, Responsibilities, and Authorities document as required for Secretarial Offices by Chapter 8 of DOE M 411.1-1C. There is no documented, systematic analysis of NA-10 responsibilities, particularly those that are executed by other offices. As a result, some NA-10 responsibilities are not being performed.

Discussion

Revision 2 of the NNSA FRAM was issued on February 15, 2008. All significant safety management responsibilities assigned to NA-10 are listed in the NA-10 Section in Revision 2 of the NNSA FRAM. Rather than develop a separate NA-10 FRAM, the corrective actions for Management Concerns 4, 5, and 7 address the requirement for a NA-10 FRAM. However, there is a need to perform a systematic analysis of NA-10 responsibilities focused on those that are performed by offices outside of NA-10. CDNS report issues related to NA-10 responsibilities being performed outside of NA-10 or not being performed will be resolved in the corrective action for this management concern and individually for each of the following findings and weaknesses: DIR.1-1/F, EM.1-1/F, ISMS.1-2/W, ISMS.1-3/W, and NES.1-1/F.

In addition, see the corrective actions developed to address Management Concern #4, especially Corrective Action 4-4 that requires the development of a Management System Description for the Office of Nuclear Safety and Operations. Also, see the corrective actions developed to address Management Concern #6 on the need for adequate staffing to perform the NA-10 functions from the FRAM.

The following apparent cause needs to be addressed.

Apparent Cause: Revision 1 of the NNSA FRAM did not specify the significant NA-10 responsibilities, including identifying those that are being performed by other NNSA offices, which NNSA has prioritized to be accomplished. The development of the updated NNSA FRAM has not received sufficient management attention. NA-10 has not documented the functions, responsibilities, and authorities assigned to NA-10 that are being performed by organizations outside of NA-10.

Corrective Action 5-1

Action: Document the functions, responsibilities, and authorities assigned to NA-10 that are not being performed or are being performed by organizations outside of NA-10.

Action Owner: Assistant Deputy Administrator for Strategic Planning, Resources and Integration (NA-14)

Due Date: July 31, 2008

CDNS Issues Addressed by Corrective Action 5-1: ISMS.1-1/F and SB.1-1/F

Corrective Action 5-2

Action: Update the NNSA FRAM to include the NA-50 ES&H oversight responsibilities at NNSA nuclear facilities.

Action Owner: Senior Advisor for Environment, Safety and Health (NA-3.6)

Due Date: February 27, 2009

Management Concern #6 – Staffing to Perform FRAM Functions

NA-10 management has not conducted a detailed analysis to determine the staffing levels and skills mix needed to execute the full range of the organization's functions, responsibilities, and authorities. NA-10 nuclear safety review responsibilities are predominantly carried out by a single, highly-qualified individual. A staff of several similarly qualified individuals would actually be required to systematically perform, document, and use the results from the full scope of nuclear safety reviews. The team concluded that NA-10 is not adequately staffed in the safety basis, quality assurance, startup and restart, directives, training and qualification, and line management oversight functional areas, and may not be adequately staffed for other functions.

Discussion

To support the reorganization of NA-10 in March 2008, the Assistant Deputy Administrator for Nuclear Safety and Operations requested that a workforce analysis and staffing plan be completed to determine the necessary staffing level and qualifications to carry out the safety management responsibilities from the NNSA FRAM that have been assigned to the Assistant Deputy Administrator for Nuclear Safety and Operations.

The following apparent cause needs to be addressed.

Apparent Cause: The identification of NA-10 safety management functions, responsibilities, and authorities and the application of adequate qualified staff to accomplish them did not receive sufficient management attention.

Corrective Action 6-1

Action: Complete a workforce analysis and staffing plan that will include determining the staffing levels and skills necessary to accomplish the NA-10 responsibilities in the NNSA FRAM. The completed workforce analysis will be forwarded to NA-1 through NA-10.

Action Owner: Assistant Deputy Administrator for Strategic Planning, Resources and Integration (NA-14)

Due Date: September 30, 2008

Corrective Action 6-2

Action: Complete the transfer of selected NNSA employees to the Office of Safety to perform assigned NA-10 responsibilities.

Action Owner: Director, Office of Safety (NA-171)

Due Date: June 30, 2008

Corrective Action 6-3

Action: Issue vacancy announcements and fill vacancies for selected NNSA positions in the Office of Safety to perform assigned NA-10 responsibilities per the due dates for this action.

Action Owner: Director, Office of Safety (NA-171)

Due Dates:

- (a) July 31, 2008 for Industrial Safety/Industrial Hygiene/Beryllium (1 FTE), Chemistry/Waste/Environment/National Environmental Policy Act (1 FTE), Issues Management (1 FTE), and Occupational Safety and Health/10CFR851 (1 FTE);
- (b) September 30, 2008 for Site Liaisons (3 FTEs); and
- (c) December 31, 2008 for Civil/Structural Engineer (1 FTE), Mechanical Engineer (1 FTE), Safety Analyst (1 FTE), Nuclear Explosive Safety (1 FTE) and Training and Qualification (1 FTE).

CDNS Issues Addressed by Corrective Actions 6-1 through 6-3: LO.1-2/W, SB.1-3/F, SNF.1-3/F and T&Q.1-1/F

Management Concern #7 – Process Descriptions

NA-10 has not developed written procedures for executing its many and diverse nuclear safety functions. Individuals who routinely perform these functions clearly understand, in most cases, the processes they follow, due to their experience. However, several situations were identified in which well-defined procedural requirements could have helped to ensure a more systematic review, thorough coordination, and better documentation of staff analyses.

Discussion

As discussed in the response to Management Concern #4, the Office of Safety will be developing a Management System Description for the Office of Nuclear Safety and Operations that will include identification of the functions, responsibilities, and authorities assigned to the Office of Nuclear Safety and Operations. In response to Management Concern #5, the Office of Strategic Planning, Resources and Integration will document the functions, responsibilities, and authorities assigned to NA-10 that are not being performed or are being performed by organizations outside of NA-10. Both of these actions will result in the identification of those functions, responsibilities, and authorities that are assigned to the Office of Nuclear Safety and Operations.

On February 19, 2008, the Administrator issued a memorandum distributing Revision 2 of the NNSA FRAM that required Deputy and Associate Administrators, among others, to implement a phased approach for the development of implementing processes for assigned safety functions in the revised NNSA FRAM. The three phases are as follows:

1. By March 19, 2008, identify the organizational subgroup leaders responsible for the actions to execute each function and submit their names to Frank Russo, the Senior ES&H Advisor;
2. By April 19, 2008, organizational subgroup leaders will identify and document the actions that should have implementing process descriptions to ensure effective, efficient, repeatable, and quality results; and
3. By September 19, 2008, complete the implementing process descriptions.

The above three actions are the corrective actions for this management concern. The first due date has been extended to April 15, 2008, the second due date extended to May 19, 2008, and the third due date extended to February 19, 2009.

The following apparent cause needs to be addressed.

Apparent Cause: NA-10 has not reviewed all assigned NNSA FRAM responsibilities to determine those that should be included in a documented procedure or process description, followed by completion of the procedures and process descriptions.

Corrective Action 7-1

Action: Identify the organizational subgroup leaders responsible for the actions to execute each function in Revision 2 of the NNSA FRAM and submit their names to Frank Russo, the Senior ES&H Advisor.

Action Owner: Deputy Administrator for Defense Programs

Due Date: Completed – 4/15/08

Corrective Action 7-2

Action: Identify and document the actions from Corrective Action 7-1 that should have implementing process descriptions to ensure effective, efficient, repeatable, and quality results.

Action Owner: Assigned Organizational Subgroup Leaders for the Deputy Administrator for Defense Programs

Due Date: June 20, 2008

Corrective Action 7-3

Action: Complete the implementing process descriptions for the actions identified from Corrective Action 7-2.

Action Owner: Assigned Organizational Subgroup Leaders for the Deputy Administrator for Defense Programs

Due Date: February 19, 2009

CDNS Issues Addressed by Corrective Actions 7-1 through 7-3: DIR.1-2/OFI, E&PM.1-1/F, E&PM.1-3/W, F&I.1-3/F, F&I.1-1/OFI, ISMS.1-3/F, LO.1-1/W, LO.1-2/OFI, and SB.1-2/F, SNF.1-2/F

Other Process Description-Related Issues from CDNS Review of NA-10**Integrated Safety Management Systems**

ISMS.1-2/F: NA-10 does not have a document defining configuration management requirements to ensure documents and procedures used to implement FRAM functions, responsibilities, and authorities are controlled and maintained.

Corrective Action 7-4

Action: Develop a document defining responsibilities and requirements, including format and content, for process descriptions used to implement FRAM functions. This document will also define how process descriptions are prepared, reviewed, approved, issued, controlled and revised.

Action Owner: Assistant Deputy Administrator for Strategic Planning, Resources and Integration (NA-14)

Due Date: July 31, 2008

ISMS.1-1/W: The NA-10 PMM [Program Management Manual] is inconsistent with the current NA-10 organizational structure because it does not reflect the establishment and responsibilities of the Office of the Assistant Deputy Administrator for Facility and Infrastructure Acquisition and Operations (NA-17).

The PMM is a management manual and as such describes the duties, roles, or responsibilities of a program manager to define and execute Planning, Programming, Budgeting and Evaluation responsibilities as prescribed in NNSA Business and Operating Policy (BOP) 006.001, *NNSA Program Management Policy*. In the PMM, safety is identified as one of the responsibilities of a manager and a potential integration issue (Section 5.10.2.2) with reference to the NNSA Functions, Responsibilities, and Authorities Manual (FRAM) for the description of how safety management functions, responsibilities, and authorities are defined and implemented. Integrated Safety Management is referenced (Section 6.0) as one of the ten subject areas in which candidates are required to demonstrate knowledge and competency to achieve PM Qualification.

Corrective Action 7-5

Action: The NA-10 PMM will be revised to identify NA-10 organizational changes resulting from the March 2008 NA-10 reorganization and include areas of functional management as a part of DP's organizational structure (Paragraphs under Section 3.2.1).

Action Owner: Assistant Deputy Administrator for Strategic Planning, Resources and Integration (NA-14)

Due Date: Approved & published PMM - November 28, 2008

Corrective Actions for Other CDNS Issues

Directives

DIR.1-1/F: NA-10 processes associated with the Directives Systems are not consistent with the requirements assigned to Secretarial Officers in the Departmental Directives Systems.

Corrective Action DIR-1

Action: Develop a process or procedure for executing Secretarial Officer responsibilities for NA-10 from DOE O 251.1B, *Departmental Directives Program*, and DOE M 251.1-1B, *Departmental Directives Program Manual*. This process or procedure will include the responsibility that the NA-10 Directives Point of Contact (POC) maintain a list of NA-10 POCs for each directive and define roles and responsibilities for NA-10 POCs for individual directives and the NA-10 Directives POC.

Action Owner: Director, Office of Safety (NA-171)

Due Date: October 19, 2008

DIR.1-2/F: Division of responsibilities between the NA-1 DPC and points of contact in NA-10 is not documented or formally approved as required by Section 8 of the DOE FRAM, and no written procedures govern the delegation and execution of the Secretarial Officer's directives responsibilities.

See Corrective Action DIR-1.

DIR.1-3/F: NA-10 has not currently allocated sufficient resources to fulfill its assigned responsibilities under the Directives System.

Corrective Action DIR-3

Action: Assign a technical lead for directives and standards within the Office of Safety.

Action Owner: Director, Office of Safety (NA-171)

Due Date: Complete – Mr. James Winter

Engineering and Project Management

E&PM.1-1/W: The process used by NA-17 for performing Technical Independent Project Reviews (TIPR) does not reflect its proper role as the PSO point of contact for conducting these reviews.

Corrective Action E&PM-1

Action: In coordination with NA-17, revise BOP-50.003, *Establishment of a National Nuclear Security Administration (NNSA) Independent Project Review (IPR) Policy*, to describe the functions, responsibilities, and authorities for TIPRs following the March 2008 reorganization of NA-10.

Action Owner: Director, Office of Project Management and System Support (NA-54)

Due Date: December 31, 2008

E&PM.1-2/W: NA-17 does not verify that the required information is being provided by the projects as documented in Attachment 3 of the ESAAB Equivalent Process.

Corrective Action E&PM-2

Action: In coordination with NA-17, revise BOP-50.001, *NNSA ESAAB Equivalent Process*, to describe the functions, responsibilities, and authorities for the ESAAB Equivalent Process following the March 2008 reorganization of NA-10. This revision will clarify roles and responsibilities which ensure that required information is being provided by the projects.

Action Owner: Director, Office of Project Management and System Support (NA-54)

Due Date: December 31, 2008

E&PM.1-4/W: NA-10 personnel have not been assigned to ensure the integration of nuclear safety in design and construction for many NA-10 projects.

Corrective Action E&PM-3

Action: DOE Order 413.3A is in the process of being revised to require the use of DOE Standard 1189, *Integration of Safety into the Design Process*, for new Hazard Category 1, 2, and 3 nuclear facilities and major modifications thereof. DOE-STD-1189 was issued on March 31, 2008. Corrective Action 4-3 requires the development of a Management System Description for the Office of Nuclear Safety and Operations that will include the assignment of functions and responsibilities from the NNSA FRAM within the Office of Nuclear Safety and Operations. Corrective Actions 7-1, 7-2, and 7-3 will determine those functions from Revision 2 of the NNSA FRAM that will be covered by a process description, as well as the development of the process descriptions. Corrective Actions 7-1, 7-2, and 7-3 will also consider the integration of nuclear safety in design and construction for NA-10 projects.

Action Owner: Director, Office of Safety (NA-171)

Due Date: October 19, 2008

Emergency Management

EM.1-1/F: The NA-10 Implementation Procedure for the HQ EMT Plan has not been formally issued and the NA-43/NA-10 agreement on PSO responsibilities in DOE O 151.1C is not documented.

Corrective Action EM-1

Action (1): Issue NA-10 Implementation Procedure for the HQ EMT Plan signed by the Principal Assistant Deputy Administrator for Operations and sent to the Associate Administrator for Emergency Operations.

Action (2): Clarify NA-10/NA-43 authorities and responsibilities for the implementation of PSO responsibilities from DOE O 151.1C (Chapter I, Paragraph 8) in the NNSA FRAM and develop a formal agreement or delegation of authority to the appropriate NNSA HQ organization.

Action Owner for Planned Action (1): Jeffrey H. Davis, Office of the Deputy Administrator for Defense Programs (NA-10)

Action Owner for Planned Action (2): Director, Office of NNSA Emergency Management Implementation (NA-43)

Due Date for Planned Action (1): Completed December 12, 2007

Due Date for Planned Action (2): September 30, 2008

EM.1-1/W: The NA-10 Implementation Procedure for Headquarters EMT Plan (draft) and the NA-10 HQ EMT responder roster lists the NA-10 Executive Assistant as an EMT team leader. The intent is for the Executive Assistant to be the first notified, who will then contact an EMT team leader to staff the EOC.

Corrective Action EM-2

Action: The draft NA-10 Implementation Procedure and NA-10 HQ EMT responder roster were changed to remove the Executive Assistant from the section on Team Leaders. The Executive Assistant is already #1 on the EOC call list.

Action Owner: Jeffrey H. Davis, Office of the Deputy Administrator for Defense Programs (NA-10)

Due Date: Completed December 3, 2007

EM.1-2/W: NA-10 EMT personnel have not received specific training on the performance of their duties within the EMT.

Corrective Action EM-3

Action: NA-10 EMT Team Leaders attend EMT training.

Action Owner: Jeffrey H. Davis, Office of the Deputy Administrator for Defense Programs (NA-10)

Due Date: September 30, 2008

Feedback and Improvement

F&I.1-1/F: An NA-10 self-assessment was not completed as required by the NNSA QAP or the *Initial Headquarters Line Management Oversight Plan for ES&H and Emergency Operations*, as approved by NA-1.

Corrective Action F&I-1

Action: Complete NA-10 self assessment focused on reviewing the effectiveness of corrective actions identified in this CAP and about one year following NA-10 restructuring.

Action Owner: Director, Office of Safety (NA-171)

Due Date: May 29, 2009

Line Oversight

LO.1-2/F: NA-10 has not approved contractor maintenance implementation plans as required by DOE O 433.1A and has not delegated the approval authorities in a manner consistent with NNSA and DOE policy on the delegation of nuclear safety authorities.

Corrective Action LO-1

Action: On November 6, 2007, the Principal Assistant Deputy Administrator for Operations delegated to the Site Office Managers the approval authority for contractor Maintenance Implementation Plans (MIP). Approval of contractor MIPs per DOE O 433.1A will be identified as a Site Office Manager responsibility in Revision 2 of the NNSA FRAM.

Action Owner: Assistant Deputy Administrator for Facility and Infrastructure Acquisition and Operation

Due Date: Completed – November 6, 2007

Also, this Site Office Manager responsibility is included in Revision 2 of the NNSA FRAM dated February 15, 2008.

Nuclear Explosives Safety

NES.1-1/F: Several nuclear weapons surety (NEWS)-related DOE Order requirements are not being performed. Consideration should be given to the need for better definition of the requirements themselves as part of the corrective action to this finding.

See Corrective Action NES-1.

NES.1-2/F: Ownership, oversight, and approval of NES change control processes are not in accordance with DOE Order requirements.

See Corrective Action NES-1.

NES.1-3/F: NNSA roles and responsibilities of Federal personnel related to NES/NEWS are not well defined in DOE Orders or the NNSA FRAM and are not understood and executed by NA-10 personnel. This does not meet the intent of DOE O 226.1A 5.b (7).

Corrective Action NES-1

Actions:

1. Critically examine NES/NEWS requirements in DOE O 452.1C and supporting requirements in DOE O 452.2C, DOE M 452.2-1, draft DOE M 452.2-2, DOE O 452.4A, and DOE O 452.6. Areas of particular interest include requirements for:
 - authorizing nuclear explosive operations (especially certification that Surety Standards are met),
 - periodic appraisals/assessments,
 - determination of readiness for independent NES evaluations,
 - Nuclear Explosive Safety Study Group (NESSG) finding closure process,
 - NES change control process, and
 - balancing formality and consistency of NES requirements with allowance for appropriate degree of flexibility.
2. Eliminate requirements in #1 that are identified as non-value-added.
3. Ensure remaining requirements are unambiguous. Clearly articulate the different roles for NNSA line management Nuclear Explosives Safety (NES) oversight and independent NES oversight.
4. Identify appropriate lead and supporting organizations for each requirement.
5. Update NNSA FRAM and responsibilities section of 452-series directives consistent with #4 and ensure each responsibility is unambiguously stated.
6. Revise/establish processes and procedures for implementation.
7. Update Pantex Site Office (PXSO) FRAM to identify appropriate lead and supporting organizations for each NES change control requirement and ensure each responsibility is unambiguously stated.

8. Establish staffing and qualification requirements for personnel executing NES oversight functions at Pantex and at HQ.

Action Owner: Director, Nuclear Weapon Surety and Quality Division (NA-122.1)

Principal Players: Nuclear Weapon Surety and Quality Division, Nuclear Weapons Stockpile Division (NA-122.2), PXS0, BWXT Pantex and the Office of Safety. To a lesser extent, Office of Secure Transportation and the Nevada Site Office (NSO) are also involved; once Pantex-centered issues begin to firm up, they will be engaged to ensure consistency where possible and appropriate tailoring for their unique circumstances.

Due Date: September 30, 2008

NES.1-4/F: There is no Federal oversight of the NESSG member training/certification processes used by the nuclear weapon production sites or design agencies which is inconsistent with DOE O 226.1A.

Corrective Action NES-2

Actions:

1. Office of Nuclear Weapon Surety and Quality will work with Sandia National Laboratories (SNL), Los Alamos National Laboratory (LANL), LLNL, and BWXT Pantex to ensure that the programs by which their NESSG members attain and maintain required proficiencies are formalized and adequately documented.
2. Office of Nuclear Weapon Surety and Quality will work with SNL, LANL, LLNL, and BWXT Pantex to establish a process for periodic assessment of the effectiveness of their NESSG member certification programs.

Action Owner: Director, Nuclear Weapon Surety and Quality Division (NA-122.1)

Principal Player: Nuclear Weapon Surety and Quality Division. Affected organizations are SNL, LANL, LLNL, and B&W Pantex.

Due Date: July 31, 2008

Corrective Action NES-3

Action: Perform initial assessment of the effectiveness of the NESSG member certification programs at LANL, LLNL, SNL, and BWXT Pantex.

Action Owner: Director, Nuclear Weapon Surety and Quality Division (NA-122.1)

Principal Player: Nuclear Weapon Surety and Quality Division. Affected organizations are SNL, LANL, LLNL, and B&W Pantex.

Due Date: December 31, 2008

NES.1-1/W: While the processes and procedures to ensure that adequate resources exist for the conduct of NES evaluations, it does not appear that adequate resources exist at the Site Office and contractor to meet all Order and Standard requirements related to day-to-day oversight of NES-related activities.

Corrective Action NES-4

Action: Adequacy of Site Office and contractor resources will be reassessed after resolution of NES/NEWS roles and responsibilities (NES.1-1/F, NES.1-2/F, and NES.1-3/F).

Action Owner: Director, Nuclear Weapon Surety and Quality Division (NA-122.1)

Principal Players: Nuclear Weapon Surety and Quality Division, NA-64, PXSO, BWXT Pantex, and Office of Safety

Due Date: December 31, 2008

NES.1-2/W: While DOE-STD-1185 makes the under-instruction performance requirements for Chairs and members in training a requirement, DOE-STD-3015 Appendix A does not.

Corrective Action NES-5

Action: Will be corrected in DOE M 452.2-2, *Nuclear Explosives Safety Evaluation Processes*, and be made consistent in DOE-STD-1185 and DOE-STD-3015.

Action Owner: Director, Nuclear Weapon Surety and Quality Division (NA-122.1)

Due Date: Upon publication of DOE M 452.2-2

Quality Assurance

QA.1-1/F: The existing QAP is incomplete, out of date, and does not reflect the current NA-10 organization.

Corrective Action QA-1

Action: Revise and issue the NA-10 Quality Assurance Plan (QAP). The NA-10 QAP will be approved by the Deputy Administrator for Defense Programs. The NA-10 QAP will be integrated with the NNSA Headquarters ISMS Description and Corrective Action 4-3.

Action Owner: Director, Office of Facility and Infrastructure Acquisition and Operation (NA-172)

Due Date: December 31, 2008

QA.1-2/F: The QAPIP is out of date, and the status of the actions included in the QAPIP is unknown.

Corrective Action QA-2

Action: Revise and issue the NA-10 Quality Assurance Plan Implementation Plan (QAPIP). The NA-10 QAPIP will be approved by the Deputy Administrator for Defense Programs.

Action Owner: Director, Office of Facility and Infrastructure Acquisition and Operation (NA-172)

Due Date: December 31, 2008

QA.1-3/F: The NNSA FRAM requires that NA-10 approve Site Office QAPs; concurrence on a Site Office QAP by NA-17 does not meet approval requirements.

Corrective Action QA-3

Action: Develop a process description for the quality assurance function. This QA process description will include revised NA-10 review criteria for Site Office quality assurance plans.

Action Owner: Director, Office of Facility and Infrastructure Acquisition and Operation (NA-172)

Due Date: October 19, 2008

QA.1-4/F: The revision to the review criteria provided in the 05/27/05 memorandum from the Deputy Administrator for Defense Programs to the Site Office Managers entitled *Quality Assurance Program Description Document Review Criteria for NA-10* has not yet occurred.

See Corrective Action QA-3.

QA.1-1/W: The QAP concurrence process within NA-10 is inconsistent.

Corrective Action QA-4

Action: Develop a process description for the weapons quality assurance function.

Action Owner: Director, Nuclear Weapon Surety and Quality Division (NA-122.1)

Due Date: October 19, 2008