National Nuclear Security Administration

Department of Energy
National Nuclear Security Administration
Washington, DC 20585

JUN 2 2 2011

The Honorable Peter S. Winokur
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, N.W., Suite 700
Washington, D.C. 20004

Dear Mr. Chairman:

This is in response to your March 28, 2011, letter and Staff Issues Report on work planning and control deficiencies at the Nevada National Security Site (NNSS). The National Security Technologies, LLC (NSTec), Nevada Site Office (NSO), and Headquarters have evaluated the process issues identified by your staff.

The National Nuclear Security Administration (NNSA) and NSTec are committed to effective work planning processes and their implementation, given the complexity and hazards of the work involved. Completed initial actions and future actions by NSTec and NSO to address the Board's concerns at NNSS are included as enclosures.

As discussed in previous letters to you on activity-level work planning and work control at the Los Alamos National Laboratory and the Lawrence Livermore National Laboratory, the Office of Defense Programs remains committed to an already established partnership with the Energy Facilities Contractors Group (EFCOG), the Office of Environmental Management (EM), and the Office of Health Safety & Security (HSS) to pursue long-term improvements in work planning and work control at EM and NNSA sites. Subject matter experts from NSTec and NSO are working with the assembled project team.

EFCOG has been working on a consensus voluntary standard on work planning and control and is interacting with the contractor community, NNSA, EM, HSS, and members of your staff. This standard is expected to be completed and issued to NNSA and EM site contractors later this year for implementation. The project plan that was briefed to you in February has been revised to reflect this priority and shared with your staff.

If you have any questions concerning this matter, please contact me or have your staff contact Mr. James McConnell at (202) 586-4379.

Sincerely,

DONALD L. COOK
Deputy Administrator
for Defense Programs

cc w/enclosures:
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National Security Technologies, LLC (NSTec) Action Plan

The following NSTec actions have been or will be performed to improve integration of the core functions of Integrated Safety Management (ISM) into activity-level work and to address concerns identified by the Defense Nuclear Facilities Board (DNFSB). Additional improvement actions may be implemented at the completion of the initiative on Work Control through a joint Requirements Improvement Team (RIT) scheduled to begin in June 2011.

1. NSTec has conducted an Extent of Condition (EOC) review to determine specifics on which of the DNFSB identified issues are systemic throughout work planning and control in its nuclear and high hazard operations. This assessment (IA-11-W200-001), once finalized, will be used to develop any additional corrective actions, compensatory measures and to determine the level of resources needed to correct identified problems. The assessment team is utilizing the Appendix B, *Criteria Review and Approach Documents* (CRADs), *(Assessment Criteria and Guidelines for Performing Assessments of the Effectiveness of Incorporation of Integrated Safety Management and Quality Assurance Principles Into Activity-Level Work Planning and Control at NNSA Sites)* from Attachment 1, of *Activity-Level Work Planning and Control Processes – Attributes, Best Practices, and Guidance for Effective Incorporation of Integrated Safety Management and Quality Assurance* to assess program strength. NNSA/NSO has participated in the assessment planning and is being kept apprised of the results. In addition, the team is conducting independent surveillances on pre-job briefs.

Complete EOC assessment: 05/23/2011
Issue Final report: 06/01/2011
Develop Corrective Action Plan (CAP) as required: 07/01/2011
Assign responsibilities and enter into CaWeb: 07/15/2011

2. The first issue the Board identified – "*Activity-level work planning processes and procedures used by NSTec fail to provide adequate guidance for the performance of hazard identification and analysis. As a result, some plausible activity-level hazards are overlooked, and work procedures omit applicable hazard controls.*" Issue will be addressed by the following actions:

   a. NSTec will modify CCD-QA05.001-003, Activity-Level Hazard Analysis Process to include:

      1) Developing an appendix providing detailed instruction on Jurisdiction Having Authority completion and hazard analysis.

      2) Adding process safety analysis tools as an available method for use when activities trip requirements IAW 29CFR 1910.119 appendix will list methods.

      3) Clarifying when each method is to be used in accordance with a screening and binning tool.

Publish revised CCD: 09/30/2011

b. NSTec has scheduled a Management Assessment (MA-12-P440-002) to gage effectiveness of the proposed changes to CCD-QA05.001-003 in the fourth quarter of FY 2012. This will allow training and implementation before the assessment.

Complete assessment and document results: 08/30/2012
Develop CAP as required: 09/15/2012
Assign responsibilities and enter into CaWeb: 09/30/2012

c. NSTec has scheduled a Management Assessment for the "Skill of the Worker" (SOTW) program (MA-11-G026-005). A well developed SOTW program is another method NSTec uses to ensure workers are protected from work hazards. The assessment will use draft criteria currently under development under the auspices of the *Energy Facilities Contractors Group (EFCOG) Work Planning and Control Improvement* initiative. Any program weaknesses identified will be addressed by a CAP, including any needed compensatory measures and to determine the level of resources needed to correct identified problems.

Complete SOTW assessment and document results: 06/30/2011
Develop CAP as required: 07/31/2011
Assign responsibilities and enter into CaWeb: 08/15/2011

3. As an Occupational Safety and Health Administration certified Voluntary Protection Program company, NSTec utilizes many tools in addition to the activity level work document to ensure employees are aware of hazards. NSTec trains individuals to mitigate some hazards in the work place. For example:

a. Employees are trained to identify work situations requiring hearing protection. Industrial Hygiene conducts regular Health Hazard Assessments in all of the buildings controlled by NSTec. These assessments identify work spaces where hazardous noise is present and the actions facility managers must take to make those spaces safe (such as appropriate posting). The company has a strong hazard communication (HAZCOM) program so employees understand the effects of hazards and appropriate personal protective equipment (PPE) to use in mitigation of those hazards.

b. Employees are trained to identify work situations resulting in heat stress. NSTec safety provides an annual briefing on Heat Stress to the company in May. Craft employees and superintendents carry monitoring cards with their badges that specify work/rest requirements in minutes for specific temperatures.

c. Managers and Superintendants are required to spend time in the field monitoring compliance with posted requirements, use of PPE, and ensure personnel are working efficiently through a teamwork approach.

Continue monitoring: On going

4. The second issue identified by the Board – "*The scope and applicability of some work procedures are too broad and general. As a result, workers and supervisors must identify specific work steps and hazard controls in the field to complete their work safely and effectively;*" will be addressed through the following actions:

a. NSTec conducted mentoring in "Conduct of Maintenance" for maintenance supervisors to address identified weaknesses. The staff observed poor pre-job briefings and poor employee interaction during the brief. Experienced mentors coached both supervisors and employees in proper behaviors. NSTec's latest independent surveillances of pre-job briefings (SR-11-W200-001 thru -004) found no issues.

Mentor supervisors: Complete
Conduct of Maintenance briefings: 6/30/2011
Surveillances: On going

b. NSTec is reviewing and modifying Work Package Instructions to ensure adequate acceptance criterion is included in the work packages per engineering requirements

Complete modifications: 09/30/2011

c. NSTec is strengthening current "Conduct of Maintenance" training (1MNT0205) to include updates required by DOE O 433.1B. Changes to the briefing will include the use of Case Studies to address appropriate Lessons Learned from industry and in-house operating experience, clarify roles and responsibilities of nuclear maintenance positions, and add practical activities to aid worker's understanding of what to do when problems are encountered.

Course modified: 09/30/11
Begin training to modified course: 10/30/2011

5. The third issue identified by the Board – "*Lessons learned from activity-level work processes are not effectively captured and fed back into the work planning process. Metrics to improve work planning processes are not effectively employed by either the Nevada Site Office or NSTec;*" have been addressed by the following measures:

a. NSTec has formalized processes that were identified by Board staff as noteworthy practices by development of a company directive (CD-G020.001 *Activity Level Work Document Surveillance*).

This action is complete

b. As an immediate action, the work planning department started including a planner review of work packages returning from the field to capture feedback for work document improvements. This short-coming was identified during the NSTec Independent Assessment in FY 2010 (IA-10-W200-001 Finding 17796) and was self- identified to the Board staff. This is a required step in the Integrated Work Control Process.

This action is complete

c. At the beginning of FY 2011, NSTec implemented a "Dashboard" system to post company metrics on the intranet for use throughout the company. This system was demonstrated to the Board staff and has since improved as metrics have matured. Executive management reviews these metrics monthly. Trending and analysis is a formalized process and is conducted quarterly. This process is a useful tool for Contractor Assurance. NNSA/NSO uses these dashboards to monitor NSTec performance in several work control categories.

Dashboard implemented: Complete

Trending and Analysis: On going

d. NNSA/NSO and NSTec utilize a Joint Assessment Schedule (JAS) to gather feedback and lessons learned for program improvements. Assessments range from low level management assessments and independent assessments to surveillances and external compliance assessments. These assessments are reviewed by NNSA/NSO in the NSTec Annual Analysis Report provided to the Site Office every year. There are 456 assessments on the JAS in FY 2011, 17 are in the area of work planning.

Assessments: On going
FY 2011 Annual Analysis Report: 07/01/11

e. NNSA/NSO and NSTec are members of the *Work Planning and Control Improvement, Initial Project Plan* Focus Area teams and have submitted site metrics to share with EFCOG in their development of enterprise metrics for improving work control in Focus Area 2. The *Project Plan* utilizes an NNSA/NSO co-lead in Focus Area 3 and an NSTec co-lead in Focus Area 5. NNSA/NSO and NSTec participated in the development of the Initial Project Plan in November 2010.

EFCOG participation: On going

6. The fourth issue identified by the Board – "*Plans of the Week, Plans of the Day, and Real Estate Operating Permits do not ensure facility managers are fully aware of the specific work activities being performed within their facilities, which reduces their ability to properly manage their work.*" As previously described, the REOP process is not used to control specific activity level work.

a. NSTec has initiated an improvement to the POD/POW process as a part of a larger project to improve formality of operations. CCD-QA05.001-007, *Plan of the Day,* has been rewritten and is undergoing final review.

Publish revised CCD: 06/30/2011
Perform effectiveness review: 06/30/2012

b. The Nevada Enterprise is performing a review of the implementation of NNSA requirements for Work Control through the joint RIT. The team includes representatives from NNSA/NSO, NSTec, Joint Nevada Test Site Program Office, Wackenhut Services and Navarro-Intera. The will identify areas for improvements utilizing Lean Six Sigma quality improvement techniques. Subject matter experts will be lead through professionally facilitated sessions to improve quality of the process.

RIT review complete: 08/31/2011

NNSA/NSO Action Plan

The following NNSA/NSO actions have been or will be performed to improve integration of the core functions of Integrated Safety Management (ISM) into activity-level work planning and control and to address concerns identified by the Defense Nuclear Facilities Board (DNFSB). These actions are in addition to existing and planned federal staff involvement in the Real Estate/Operating Permit (REOP) and Activity Level Work Planning and Control (ALWPC) process improvement initiatives as described by NSTec in their action plan. These actions are not linked to individual Board observations, but are crosscutting and will serve to address all those observations.

1. To date in FY 2011, the NNSA/NSO has completed, or has scheduled, at least five formal assessments of all or portions of the REOP and ALWPC processes. In addition, NNSA/NSO staff has documented completion of multiple operational awareness activities associated with work control, including observing execution of work packages in the field, attendance at Plan of the Day/Plan of the Week meetings, shadowing NSTec assessments, and observing preparations for startup of nuclear facilities and activities. NNSA/NSO will continue our existing oversight strategy as planned for the remainder of FY 2011.

   Execute and complete the NNSA/NSO FY 2011 Master Assessment Schedule (note: specific assessments are already loaded into ePIMS) (9/30/2011)

2. NNSA/NSO will execute our existing process to develop an annual Assessment Implementation plan and Master Assessment Schedule (AIP/MAS) for FY 2012. The functional area of Work Planning encompasses both the REOP and ALWPC processes, and will be included in the FY 2012 AIP/MAS as it was in FY 2011 planning. In developing the FY 2012 AIP/MAS, NNSA/NSO will consider the Board staff observations, existing operational awareness gained through formal and informal federal and contractor oversight, input received from NNSA/HQ through the Site Integrated Assessment Plan process, and any anticipated changes to these processes that are expected to result from process reviews.

   a. **Receive the NSTec annual analysis of the Work Planning functional area: (6/30/2011)**

   b. **Develop and approve the NNSA/NSO AIP/MAS, to include REOP and ALWPC oversight activity: (10/1/2011)**

3. A number of NNSA/NSO directives are scheduled for revision following completion of a Lean Six Sigma based process improvement initiative presently in progress. Both the REOP and ALWPC directives are included in that group. The DNFSB observation that the ALWPC directive could benefit by being aligned with ISM core functions will be considered during that revision process.

   a. **Revise NSO-O-412.X3C, Activity Level Work Control to address Requirements Improvement Team recommendations: (September 15, 2012)**

   b. **Revise NSO-O-412.X1E, Real Estate/Operations Permit to address requirements Improvement Team recommendations: (September 30, 2012)**