



Department of Energy  
National Nuclear Security Administration  
Washington, DC 20585



2016 JUL 15 PM 2:45

July 14, 2016

DNF SAFETY BOARD

The Honorable Joyce L. Connery  
Chairman  
Defense Nuclear Facilities Safety Board  
625 Indiana Avenue, NW, Suite 700  
Washington, DC 20004

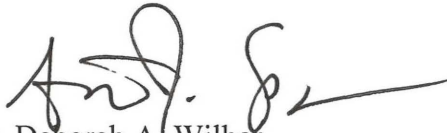
Dear Madam Chairman:

This letter is to inform you that the Department of Energy has completed the deliverable related to Section 6.1.3 Report of Current Emergency Management Deficiencies of the Department's Implementation Plan for Defense Nuclear Facilities Safety Board Recommendation 2014-1, *Emergency Preparedness and Response*.

The deliverable, which is enclosed, is a copy of the informational memorandum to the Deputy Secretary summarizing the open emergency management deficiencies reported electronically to a secure SharePoint site by defense nuclear facilities from October 13, 2015–February 5, 2016.

If you have any questions, please contact me at (202) 586-9892.

Sincerely,

*for* 

Deborah A. Wilber  
Associate Administrator for  
Office of Emergency Operations

Enclosures





Department of Energy  
National Nuclear Security Administration  
Washington, DC 20585

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May 19, 2016

DNF SAFETY BOARD

MEMORANDUM FOR THE DEPUTY SECRETARY

THROUGH: FRANK G. KLOTZ *F.K. 5/19/2016*  
UNDER SECRETARY FOR NUCLEAR SECURITY  
ADMINISTRATOR, NNSA

FROM: *for* DEBORAH A. WILBER *for*  
ASSOCIATE ADMINISTRATOR  
FOR EMERGENCY OPERATIONS

SUBJECT: INFORMATION: Report on the Status of Open Emergency Management  
Deficiencies at Department of Energy Defense Nuclear Facilities

**ISSUE:** The Implementation Plan for Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2014-1, *Emergency Preparedness and Response*, required that a report be issued to the Deputy Secretary on the status of open emergency management deficiencies by January 11, 2016. The status of open emergency management deficiencies at Department of Energy Defense Nuclear Facilities is provided for your information.

**BACKGROUND:** On September 24, 2014, the DNFSB issued Recommendation 2014-1, which identified the need to take actions to improve the emergency management preparedness and response capability at DOE's defense nuclear facilities.

On April 24, 2015, DOE transmitted to the Board the Implementation Plan for DNFSB Recommendation 2014-01, *Emergency Preparedness and Response*. The plan described and prioritized the short and long-term actions the Department needs to take to achieve successful implementation of Recommendation 2014-1. DOE also made a commitment to provide status updates to the Board every six months.

On October 13, 2015, the Deputy Secretary of Energy directed the cognizant Field Element Managers responsible for defense nuclear facilities to report on the status of open existing emergency management deficiencies. This report was to be made to a secure SharePoint site established for this purpose by November 6, 2015. However, this deadline was extended to February 5, 2016, due to the absence of key personnel at defense nuclear facilities to input the information, and to allow sites to correct previously submitted erroneous information.



Attached for your information is the summary of the open emergency management deficiencies by facility, quantity, and type of deficiencies, as of February, 2016.

We have aligned the deficiencies in the three main categories identified in the DNFSB Recommendation 2014-1:

- Ineffective implementation of existing Defense Nuclear Emergency Management Enterprise requirements due to lack of specificity of expectations.
- Weaknesses in the DOE verification and validation of readiness due to preparedness and response requirements.
- Inadequate processes to address lessons learned and needed improvements to site programs.

Attachments



Site	Status	Report Date	Description of Finding	Corrective Action	Planned Closure Date
Hanford	80% Complete	1/28/2015	The lack of preplanning for this analyzed event led to several response issues and unnecessarily tied up critical resources.	Develop a comprehensive RPL criticality consequence assessment. Develop an implementation plan for the activities identified in the nuclear criticality consequence assessment. Revise nuclear criticality, emergency preparedness, and RPL procedures and training to include measures identified in the nuclear criticality consequence assessment.	3/31/2017
Hanford	Complete	1/28/2015	The Building 325 accountability process did not effectively provide for the safety of building occupants and added undue risk to emergency responders.	Evaluate different staff accountability systems or processes for RPL. Implement and verify the accepted RPL positive staff accountability system or process in RPL.	10/30/2015
Hanford	Complete	1/28/2015	PNNL's Building Emergency Response Organization checklists are not in compliance with DOE-0223, RLEP 1.1, checklists.	RPL Building Emergency Director and Building Emergency Response Organization checklist revisions.	1/30/2015
Hanford	Complete	8/28/2015	The new accountability method was used to decrease time in obtaining facility accountability, and was unsuccessful.	Evaluate a more efficient way to achieve 100% positive accountability at RPL.	10/30/2015
INL	No Open Deficiencies		No Open Deficiencies Reported	No Open Deficiencies Reported	Complete
LANL	In Progress	1/22/2016	LANS did not effectively provide emergency notifications to workers, emergency response personnel/organizations, appropriate DOE/NNSA elements, and local organizations. (DOE Order 151.1C)	Initial CAP Submittal Rejected by Los Alamos Field Office	9/30/2016
LLNL	No Open Deficiencies		No Open Deficiencies Reported	No Open Deficiencies Reported	Complete
NSS	20% Complete	10/5/2015	Per Defense Nuclear Facilities Safety Board's (DNFSB's) recommendation 2014-1 on Emergency Response, the NNS and NLVF emergency response facilities may not be habitable in the aftermath of a severe natural phenomena event.	The corrective action for the OCC/EOC Habitability & Space Capacity concern is Static. M&O Contractor utilizing the Integrated System Planning program is developing Asset Management Plans for each Facility to include Critical Site Infrastructure. The Asset Management Plans will provide facility health information to better understand sustainability requirements and the long-term strategies in replacing aging facilities/systems.	9/30/2016

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Site	Status	Report Date	Description of Finding	Corrective Action	Planned Closure Date
NNSS	20% Complete	10/5/2015	The NFPA has revised several key firefighting tools and equipment standards that now limit the service life of tools and equipment. This has resulted in Fire and Rescue response increased cost relative to maintaining a high readiness posture.	Replacement strategy of key firefighting tools and equipment based on limited service life will be identified in the M&O FY17 budget submittal process.	9/30/2016
NNSS	60% Complete	1/8/2013	NNSS Radio Communications System Aging infrastructure - Continued use of the deteriorating equipment at their end-of-life may result in program support system failures that could negatively impact mission accomplishment in upcoming years.	Contract has been awarded to replace the NNSS Radio/Communication System to include providing Radio/Communication System requirements to the vendor relating Fire & Rescue, Command Center Operations and Emergency Management. Install of new NNSS Radio/Communication System is on-track for 2016.	9/28/2017
NNSS	Pending	10/5/2015	Additional DOE Mission Essential Functions (MEFs) were identified and added to the NNSA/NFO Continuity of Operations (COOP) Plan. The Program has no method of requesting funding to enhance associated COOP planning and participation exercise activities.	As a non-funded program, project work related to COOP program is limited to what can be justified under current mission tasking. This is the situation for both overall COOP Coordination and MEF Planning.	8/31/2017
Pantex	20% Complete	11/25/2015	Finding F-CNS-C1: CNS's control at the event/incident scene was not effective or consistent with the National Incident Management System's Incident Command System (DOE Order 151.1C).	Evaluate current processes. Update procedures. Train personnel and test effectiveness.	4/15/2017
Pantex	20% Complete	10/1/2015	Employees tried to evacuate the building. A security person told uncleared people in 12-70 to stay.	A methodology needs to be developed to evacuate uncleared personnel. Update documents. Train Personnel and test effectiveness.	1/15/2017
Pantex	20% Complete	10/1/2015	IC at the appropriate times for their organization to be in the command lead. The first portion of the 16-19 scene was Security command and the second portion (Fire and Victim treatment) was FD lead. Formal transfer did not take place in this transition.	Develop working group. Evaluate and update procedures. Provide training and test effectiveness.	4/15/2017



Site	Status	Report Date	Description of Finding	Corrective Action	Planned Closure Date
Pantex	60% Complete	10/1/2015	The occupational medical department's rigid implementation of Shelter for Security Event resulted in the direct delay of patient treatment.	Formalize OMD's procedures for emergency and disaster preparedness during a shelter for security event to state that Medical personnel may release themselves from shelter in place for security reasons if patients are being transported to OMD. Publish MNL-293131, CNS Pantex Plant Occupational Medicine Manual. Fill out EM Master Document Revision worksheet with Page No., Section No., and revisions to be made. Publish documents and test with a performance test.	11/30/2016
Pantex	60% Complete	10/1/2015	Important elements were missed in the review of the exercise plan. The Pantex process should be updated to formalize the Pantex Exercise Committee processes for review and approval of the exercise plan.	Evaluate current process. Determine exercise committee updates for procedures and implement and test effectiveness.	8/1/2016
Pantex	60% Complete	2/19/2014	MOUs with appropriate scope have not been signed with offsite agencies to ensure transport and treatment of chemically contaminated patients.	Update MOUs with local agencies with Ambulance MOUs to support transport.	8/31/2016
Pantex	60% Complete	2/19/2014	A review of ESH-EMD-FY-12-05. Self-Assessment Report, found issues that were categorized inappropriately.	Provide EM Admin. Manual (MNL-352186) to document the process of Issues Categorization (pg. 54 of 67).	7/31/2016
Pantex	80% Complete	11/25/2015	Finding F-CNS-1: Contrary to DOE Order 151.1C, the CNS exercise program does not validate all elements of the emergency management program over a five-year period.	Evaluate. Update Training and procedures. Train personnel. Test for validation.	7/31/2016
Pantex	80% Complete	10/1/2015	An initial news release was not developed and distributed by the PSS. There was a miscommunication with the Emergency Press Center Representative because they told the PSS that they had sent the initial press release.	Brief PSS on the new press release process and validate effectiveness.	7/31/2016
Pantex	80% Complete	2/19/2014	F - Pantex has not implemented procedures to maintain accountability following an emergency evacuation.	Update procedures/process and implement document changes. Provided training and drill the process to determine effectiveness.	7/31/2016
Pantex	80% Complete	2/19/2014	Roles and Responsibilities for all JIC positions are not addressed in HNDBK-0014 (including Information Coordinator and the Communication Coordinator).	Provide EPI (HNDBK-0014) to document that Information Coordinator and the Communication Coordinator are no longer applicable; and to document JIC Director responsibilities.	7/31/2016

Site	Status	Report Date	Description of Finding	Corrective Action	Planned Closure Date
Pantex	80% Complete	2/19/2014	F - Continuing education is not provided to members of the news media.	No CAP required - Currently, training is made available to visitors, vendors, subcontractors, and off-site personnel/organizations through the Pantex website under Visitor Center. This helps acquaint the media with the facility, management personnel, facility/site hazards, emergency plans, and points of contact.	7/31/2016
Pantex	80% Complete	2/19/2014	Weakness: Technical Experts have not completed public information training to prepare them to interface with the media and public.	Develop training for technical experts on public information training to prepare them to interface with the media and public. Provide training to the technical experts to prepare them to interface with the media and public.	7/31/2016
Pantex	80% Complete	2/19/2014	Finding: Emergency termination procedures do not include requirements for ensuring notifications are completed to next-of-kin.	Revise OE Manual (MNL-352187) and PX-6041 to include requirements for ensuring notifications are completed to next-of-kin.TBD	7/31/2016
Pantex	80% Complete	2/19/2014	Finding: Pantex has not conducted drills and exercises that include effective implementation of recovery operations.	Provide plan and scheduled drill/exercise to implement recovery operations.	7/31/2016
Pantex	80% Complete	2/19/2014	Pantex Emergency Mgmt. Self-Assessments are not systematically planned and conducted to ensure all elements of the program are routinely evaluated.	Provide documentation of Pantex Emergency Management Self-Assessments (EM Admin Manual). Provide documented past 3 years assessments.	7/31/2016
Pantex	80% Complete	2/19/2014	Although several ERO positions have responsibility for off-site liaison and logistics tasks, a specific person with liaison responsibilities for DOE/NNSA emergency response assets has not been identified.	Integrate Offsite Interface into MNL-352187 to identify liaisons and concisely and clearly define expectations and requirements for this program.	7/31/2016
Pantex	80% Complete	2/19/2014	The Plant Shift Superintendent (PSS) has not effectively demonstrated the ability to independently categorize an event, make notifications, and perform accountability, and perform log keeping.	1. Revise OE Manual: Define/identify technical experts as appropriate resources during an emergency event (i.e. EMD, Maintenance, Law etc. providing support for emergency actions). Establish the appropriate notification forms and the revised process to group email offsite notifications. Clarify the 15 minute notification requirement is achieved upon off-site notification delivery. 2. Submit to Quality for publication	7/31/2016



Site	Status	Report Date	Description of Finding	Corrective Action	Planned Closure Date
Pantex	80% Complete	2/19/2014	Pantex could not demonstrate the effective compensatory measures had been implemented to mitigate the inoperable Outdoor Warning System Sirens.	Test and correct or install new Outdoor Warning System (OWS).	7/31/2016
Pantex	80% Complete	2/19/2014	Pantex has not determined how long emergency facilities could operate on emergency power.	Provide documentation (O.C. Operations Manual - MNL-352190) to explain emergency facilities and capabilities of emergency power.	7/31/2016
Pantex	Pending	4/30/2015	Finding F-CNS-4: Contrary to DOE Order 151.1C, CNS has not developed procedures to implement evacuation as a protective action.	No CAP provided at this time.	12/31/2016
Pantex	Pending	11/25/2015	Finding F-CNS-2: Contrary to DOE Order 151.1C, CNS has not developed emergency plan implementing procedures to describe how the emergency plans must be implemented.	Not received. Closure Date TBD after CAP received.	12/31/2016
SNL	20% Complete	11/12/2015	Contrary to DOE Order 151.1C, SNL Emergency Management does not independently validate that corrective actions were effective in resolving the findings identified in exercise after-action reports.	Develop Corrective Actions Management Business Standard to include validation process derived from applicable requirements (i.e. DOE O's, CG's, etc).	5/31/2017
SNL	Complete	11/12/2015	Contrary to DOE Order 151.1C, SNL Emergency Management did not develop corrective action plans within 30 working days of receipt of a final evaluation report.	Pursue deviation from 30 working day requirement	4/29/2016
SNL	Complete	11/12/2015	Contrary to DOE Order 151.1C, SNL Emergency Management does not provide evaluation criteria for each exercise objective.	Purchase Exercise Builder	3/31/2016
SNL	Complete	11/12/2015	Contrary to DOE Order 151.1C, SNL Emergency Management does not provide evaluation criteria for each exercise objective.	Obtain vendor training for Exercise Builder and assistance with 2016 Annual Exercise implementation.	3/31/2016
SNL	40% Complete	11/12/2015	Contrary to DOE Order 151.1C, SFO did not develop corrective action plans within 30 working days of receipt of a final evaluation report	Update the SFO Emergency Management Oversight Desktop procedure to include a requirement for completing corrective action plans for external reviews within 30 working days of receiving the final report	6/30/2017
SNL	40% Complete	11/12/2015	Contrary to DOE Order 151.1C, SFO did not develop corrective action plans within 30 working days of receipt of a final evaluation report.	Reevaluate existing performance metrics or develop new metrics that provide an accurate assessment of the SFO EMPM performance related to timely development of corrective action plans and timely review of MOUs/LOAs, technical planning basis documents and other contractor planning documents	2/3/2017



Site	Status	Report Date	Description of Finding	Corrective Action	Planned Closure Date
SNL	20% Complete	11/12/2015	Contrary to DOE Order 151.1C, SNL Emergency Management does not provide evaluation criteria for each exercise objective.	Update/revise NM-EX-PD-01, Emergency Management Exercise Program Document, to include the use of exercise builder to create exercise objectives with criteria	6/17/2017
SNL	20% Complete	11/12/2015	Contrary to DOE Order 151.1C, SNL Emergency Management does not provide evaluation criteria for each exercise objective. SNL Emergency Management does not provide evaluation criteria	Update NM-QA-SOP-0041, Document Control, to include process for updating Exercise Builder when controlled documents are revised/updated	8/29/2016
SNL	20% Complete	11/12/2015	Contrary to DOE Order 151.1C, SNL Emergency Management does not provide evaluation criteria for each exercise objective.	Update NM-TR-SOP-6101, Emergency Response Organization Personnel Training Program Procedure, to include process for updating Exercise Builder when training objectives are revised/updated	9/26/2016
SNL	20% Complete	11/12/2015	Contrary to DOE Order 151.1C, SNL Emergency Management does not provide evaluation criteria for each exercise objective.	Develop user guide for Exercise Builder specific to SNL/NM Emergency Management in accordance with document control processes	7/25/2016
SNL	20% Complete	11/12/2015	Contrary to DOE Order 151.1C, SNL Emergency Management does not provide evaluation criteria for each exercise objective.	Contractor will coach training exercise planner to use Exercise Builder based on user guide.	8/22/2016
SNL	20% Complete	11/12/2015	Contrary to DOE Order 151.1C, SNL Emergency Management does not provide evaluation criteria for each exercise objective.	Train backup to use Exercise Builder	9/26/2016
SNL	20% Complete	11/12/2015	Contrary to DOE Order 151.1C, SNL Emergency Management does not independently validate that corrective actions were effective in resolving the findings identified in exercise after-action reports.	Complete process to cancel NM-QA-SOP-0030, Issues Management	6/30/2017
SRS	40% Complete	11/12/2015	Contrary to DOE Order 151.1C, the SRNS exercise program does not validate all elements of the emergency management program over a five-year period.	Develop a 5-year exercise schedule to incorporate all requirements of DOE Order 151.1C to include the use of alternate command facilities, backup power systems, sheltering of workers, evacuation of workers, and all applicable NNSA radiological assets.	4/30/2017
SRS	Complete	11/12/2015	Contrary to DOE Order 151.1C, completed corrective actions for some internal and external evaluation findings were not effective in resolving the original finding.	Request OST participation in drill/exercise development and conduct.	2/29/2016

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SRS	Complete	11/12/2015	Contrary to DOE Order 151.1C, completed corrective actions for some internal and external evaluation findings were not effective in resolving the original finding.	Request Site Services to develop a BCP for replacement of the Site Communications System.	2/29/2016
SRS	Not Started	11/12/2015	Contrary to DOE Order 151.1C, the SRNS exercise program does not validate all elements of the emergency management program over a five-year period.	Develop BCP for funding of site exercises.	8/28/2016
SRS	Not Started	11/12/2015	Contrary to DOE Order 151.1C, the SRNS exercise program does not validate all elements of the emergency management program over a five-year period.	DOE-SR OSSES to Review and Approve the 5-year Schedule.	6/29/2017
SRS	Not Started	11/12/2015	Contrary to DOE Order 151.1C, completed corrective actions for some internal and external evaluation findings were not effective in resolving the original finding.	Develop a comprehensive set of lines of inquiry for use during programmatic evaluations, to include the FY2016 Emergency Management Baseline Facility Assessment.	6/30/2017
WIPP	Complete	2/11/2015	NWP needs to evaluate and correct deficiencies regarding the controls for communicating emergencies to the underground, include the configuration and adequacy of equipment (alarms, strobes, and public address).	Evaluate the visibility and audibility of underground communication systems.	5/22/2015
WIPP	Complete	2/11/2015	NWP needs to evaluate the procedures and capabilities of the FSM and CMRO in managing a broad range of emergency response events through a comprehensive drill and requalification program.	Revise the Resource Conservation and Recovery Act Contingency Plan implementing procedure and training course to ensure timely implementation during incidents.	3/24/2015
WIPP	Complete	2/11/2015	NWP needs to evaluate the procedures and capabilities of the FSM and CMRO in managing a broad range of emergency response events through a comprehensive drill and requalification program.	Develop and implement a comprehensive drill and exercise program.	3/24/2015
WIPP	Complete	2/11/2015	NWP needs to evaluate the procedures and capabilities of the FSM and CMRO in managing a broad range of emergency response events through a comprehensive drill and requalification program.	Implement the revised procedures for the Emergency Management Plan	4/30/2015
WIPP	Complete	2/11/2015	NWP needs to review procedures and ensure consistent actions are taken in response to a fire in the underground.	Develop an Underground Fire Response Plan and procedure to respond to fire in the underground to including communications, fire suppression systems and PPE, and implement through training	4/30/2015



Site	Status	Report Date	Description of Finding	Corrective Action	Planned Closure Date
WIPP	Complete	2/11/2015	NWP needs to review procedures and ensure consistent actions are taken in response to a fire in the underground.	Plan and conduct an underground fire response drill demonstrating a consistent approach to underground fire response.	6/30/2015
WIPP	Complete	2/11/2015	NWP, CBFO and DOE HQ need to clearly define expectations for responding to fires in the underground, including incipient and beyond incipient stage fires.	Determine the underground firefighting capacity and capability needed to protect worker egress.	3/15/2015
WIPP	Complete	2/11/2015	NWP ensure that requirements of DOE O 420.1C and MSHA are addressed in the BNA, results incorporated into implementing procedures, requirements referenced, training is consistent with those procedures.	Revise BNA to ensure the requirements of DOE O 420.1 C and MSHA are addressed.	3/3/2015
WIPP	Complete	2/11/2015	NWP ensure that requirements of DOE O 420.1C and MSHA are addressed in the BNA, results incorporated into implementing procedures, requirements referenced, training is consistent with those procedures.	Revise appropriate procedures including source requirements to implement the approved BNA, and implement revised procedures	5/30/2015
WIPP	Complete	2/11/2015	NWP needs to revise Emergency Response Organization training to include more supervised hands-on training and drills to enhance the effectiveness of the ERO response.	Conduct training of the ERO staff	3/24/2015
WIPP	Complete	2/11/2015	Correct activation, notification, classification, and categorization protocols for compliance with DOE Order 151.1C and provide training for applicable personnel.	NWP procedures will be reviewed to ensure flow-down of program requirements including activation, notification, classification, and categorization protocols.	4/30/2015
WIPP	Complete	2/11/2015	Correct activation, notification, classification, and categorization protocols for compliance with DOE Order 151.1C and provide training for applicable personnel.	CBFO Manager's designated staff will complete NWP administered training for the WIPP Emergency Response and Operations procedure.	4/30/2015
WIPP	Complete	2/11/2015	NWP and CBFO needs to improve and implement an integrated drill and exercise program that includes all elements of the ICS, MRT, FLIRT, and mutual aid; unannounced D&E; donning of SR/SCSRs; and full U/G evacuation.	Oversee NWP development of integrated drill and exercise program that includes all elements of the NIMS and ICS, and implementation in accordance with DOE orders and regulatory requirements.	3/24/2015
Y-12	20% Complete	2/11/2014	EP.I-2/F: NPO has not completed the required reviews of both Contractor programs every three years.	Put these on a schedule for completion every three years and if necessary request external support.	9/30/2016
Y-12	60% Complete	2/11/2014	EP.I-1/W: Continued neglect of all categories of potential emergencies represents a weakness in Pantex's emergency management program.	Review Technical Planning Basis documents to determine which categories have been neglected.	12/30/2016



Site	Status	Report Date	Description of Finding	Corrective Action	Planned Closure Date
Y-12	60% Complete	2/11/2014	EP.I-2/W: While NPO assessed a Finding regarding this area related to performance at Pantex, NPO's poor tracking of submissions from Y -12 results in late Contractor submissions and delayed approvals.	Review each year the information in the Emergency Readiness Assurance Report on overdue reviews or late submissions of technical planning basis documents.	7/31/2016
Y-12	60% Complete	4/30/2015	Finding F-NPO-1: Contrary to DOE Order 151.1C, NPO did not develop corrective actions within 30 working days of receipt of a final evaluation report.	Develop corrective actions within 30-days of final evaluation reports.	7/31/2016