



Independent Assessment of Emergency Management at the Y-12 National Security Complex

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Acronyms

CAP	Corrective Action Plan
CAT	Consequence Assessment Team
CNS	Consolidated Nuclear Security, LLC
COVID-19	Coronavirus Disease 2019
DOE	U.S. Department of Energy
EA	Office of Enterprise Assessments
EAL	Emergency Action Level
EOS	Emergency Operations System
ERO	Emergency Response Organization
GIS	Geographical Information System
HAZMAT	Hazardous Material
IC	Incident Commander
ICP	Incident Command Post
NNSA	National Nuclear Security Administration
NPO	NNSA Production Office
OFI	Opportunity for Improvement
OST	Office of Secure Transportation
PA	Protective Action
Pantex	Pantex Plant
PSS	Plant Shift Superintendent
SAE	Site Area Emergency
SGT	Safeguards Transporter
TSC	Technical Support Center
Y-12	Y-12 National Security Complex
YAMS	Your Area Mapping System

Independent Assessment of Emergency Management at the Y-12 National Security Complex

Executive Summary

The U.S. Department of Energy (DOE) Office of Enterprise Assessments (EA) conducted an independent assessment of the emergency management program at the Y-12 National Security Complex (Y-12) during Y-12's annual site-level exercise, Emergency Management Exercise 2021-3 (EME21-3). The assessment evaluated the effectiveness of Consolidated Nuclear Security, LLC (CNS) and the National Nuclear Security Administration Production Office (NPO) in managing and maintaining emergency response organization (ERO) performance during the site-level exercise, as required by DOE Order 151.1D, *Comprehensive Emergency Management System*. Additionally, EA appraised the performance of the ERO at key decision-making venues to determine whether CNS responded effectively to an operational emergency and whether appropriate response measures were taken to protect workers, responders, and the public.

Overall, the CNS and NPO ERO and emergency operating system responded effectively to the simulated emergency. The Y-12 ERO exhibited sufficient depth and capacity and successfully tested and validated emergency plans and procedures. EA identified the following strengths, including one best practice:

- NPO directed the augmentation of the ERO with management and operating personnel from the Pantex Plant to mitigate challenges associated with Coronavirus Disease 2019 and encourage institutional learning. Efforts to supplement Y-12 personnel with CNS personnel from the Pantex Plant (Pantex) strengthened the EOS. The staff augmentation provided cross-training opportunities and the export of foundational practices. (Best Practice)
- CNS completed termination criteria for the simulated emergency while maintaining an appropriate ERO consisting of the requisite skills and disciplines necessary for adequate mitigation of the emergency event.
- NPO maintains effective plans, procedures, and supporting systems that facilitate timely coordination with local, state, and Federal agencies and organizations responsible for offsite emergency response capabilities.
- CNS used interoperable systems to establish and maintain communications throughout the simulated incident.
- CNS and NPO maintain a management tracking system that allows for tracking of corrective actions to closure.
- CNS demonstrated effective capabilities to conduct consequence assessments throughout an emergency and communicate results to key response personnel and authorities.

While minor issues were observed related to notifications and protective actions, no deficiencies were identified by this assessment.

In summary, CNS and NPO exhibited proficient emergency preparedness and response capabilities. Specifically, CNS generally used appropriate plans and procedures for notifications, emergency classification, protective actions, and consequence assessment activities. CNS and NPO have mature emergency management issues management tracking systems that encourage timely and formal development of corrective actions that are tracked through closure. EA will continue to monitor implementation of corrective actions, as appropriate, and seek opportunities to evaluate future exercises and performance tests.

Independent Assessment of Emergency Management at the Y-12 National Security Complex

1.0 INTRODUCTION

The U.S. Department of Energy (DOE) Office of Emergency Management Assessments, within the independent Office of Enterprise Assessments (EA), conducted an assessment of the emergency management program at the Y-12 National Security Complex (Y-12). The assessment focused on the effectiveness of the Y-12 emergency management program by evaluating its effectiveness in responding to emergencies. EA conducted the assessment in accordance with the *Plan for the Emergency Management Exercise Evaluation at the Y-12 National Security Complex, August 2021*, and concurrently with the Consolidated Nuclear Security, LLC (CNS) annual site-level exercise, Emergency Management Exercise 2021-3 (EME21-3), which was conducted on September 1, 2021. The CNS exercise evaluated the effectiveness of the Y-12 emergency response organization (ERO) in responding to a postulated incident involving a DOE Office of Secure Transportation (OST) shipment on site. This report evaluates performance at selected response venues, such as the incident command post (ICP) and emergency operations center (EOC) and assesses CNS and National Nuclear Security Administration (NNSA) Production Office (NPO) implementation of DOE emergency management requirements.

Y-12 is a government-owned, contractor-operated site with a hazardous material (HAZMAT) program. NPO provides Federal oversight and CNS is the prime management and operating contractor responsible for developing and implementing the HAZMAT program. The Y-12 ERO consists of Federal and contractor staff using a single consolidated emergency management plan. Y-12 is required by DOE Order 151.1D, *Comprehensive Emergency Management System*, to have a HAZMAT program because of the quantities of radiological material and hazardous chemicals used and stored on site.

2.0 METHODOLOGY

The DOE independent oversight program, DOE Order 227.1A, *Independent Oversight Program*, is implemented through a comprehensive set of internal protocols, operating practices, assessment guides, and process guides. This report uses the terms “best practices, deficiencies, findings, and opportunities for improvement (OFIs)” as defined in DOE Order 227.1A.

As identified in the assessment plan, this assessment used DOE Order 151.1D requirements. EA also used the following sections of EA Criteria and Review Approach Document (CRAD) 33-09, Rev. 0, *DOE Order 151.1D Emergency Management Program*: 4.3, Emergency Response Organization; 4.4, Emergency Operations System; 4.5, Training and Drills; 4.6, Offsite Response Interface; 4.7, Emergency Categorization; 4.8, Protective Actions; 4.9, Consequence Assessment; 4.11, Notifications and Communications; and 4.15, Exercises. EA observed specific decision-making venues during the exercises using the CRAD’s applicable ERO performance-based lines of inquiry and a response element matrix to facilitate the integration of crosscutting performance observations relative to response elements, such as the emergency operations system (EOS) and protective actions (PAs).

The exercise was designed to test and validate emergency plans and procedures, including Y-12 emergency response training for responding to an OST emergency as the host site. Specifically, the postulated incident included an onsite collision between a fuel truck and a safeguards transporter (SGT) carrying radioactive material. A fire erupts, engulfing the fuel truck, while smoke obscures the visual condition of the trailer. The accident results in four noncritical injuries – minor scrapes and cuts, a

shoulder injury, burns to hands and arms, and a broken leg. No release of radioactive material was postulated, but, because of this potential, the incident was classified as a Site Area Emergency (SAE).

EA examined key documents, such as emergency plans and implementing procedures, the exercise plan, and applicable manuals and job aids. EA also interviewed key personnel responsible for developing and executing the associated programs and listened to the exercise radio transmission recordings. The members of the assessment team, the Quality Review Board, and the management responsible for this assessment are listed in Appendix A.

This assessment also examined the effectiveness of corrective actions already implemented or in the process of being implemented to resolve two previous findings. EA reviewed an NPO finding from the *Office of Enterprise Assessments Review of the Y-12 National Security Complex Emergency Management Exercise Program, August 2015*, and a CNS finding from the *Emergency Management Assessment at the Y-12 National Security Complex, December 2019*. Results of the corrective action review are included in section 3.6 of this report.

3.0 RESULTS

3.1 Notifications and Communications

The objective of this portion of the assessment was to determine whether CNS issues initial notifications promptly, accurately, and effectively to all stakeholders and whether the ERO maintains effective communications throughout the response.

3.1.1 Notifications

CNS issued timely notifications to most stakeholders. Specifically, CNS sent initial notifications onsite to workers and the ERO and offsite to designated stakeholders and the press. CNS has established effective processes in its plans, procedures, and supporting systems for notifying stakeholders during emergencies. CNS used an integrated communication system (radio, building public address systems, and the site emergency notification system) to assist with the prompt issuance of worker PAs. These PAs were issued within 5 minutes, which is half the time required and a significant improvement over past EA exercise observations. CNS also used the integrated communication system to effectively alert the ERO of the incident and provided the ERO with an incident description and safe route information using an automated paging system. CNS effectively notified and dispatched first responders and provided safe routing and meteorological information. The Y-12 ringdown phone circuit simplified verbal offsite notifications, enabled simultaneous participation with all organizations, and provided a common operating picture. These actions were completed within 7 minutes, less than half the required time of 15 minutes. CNS used an integrated automated process to promptly issue a preapproved initial press release.

However, CNS included some inaccurate information on the notification forms, and the notification update was delayed. CNS classified the incident based on a potential radioactive material release, and the initial notification form should have indicated that the release involved radioactive material instead of “unknown.” In addition, the notification update contained inaccurate information regarding the fuel spill, the number of injured personnel, and PAs: 8,000 gallons of diesel fuel instead of 3,000 gallons; 2 injuries instead of 4 injuries; shelter-in-place PAs rather than evacuation for building 9737 and shelter-in-place PAs for the Y-12 east zone. Additionally, CNS issued the notification update 90 minutes after the initial notifications, whereas CNS procedures have a local requirement of 60 minutes. Consequently, CNS did not provide a timely and accurate update of conditions. (See **OFI-CNS-1**.) EA observed similar errors in 2019 that led to a finding in the EA report, *Emergency Management Assessment at the Y-12 National*

Security Complex, December 2019, associated with weaknesses in responder proficiency. CNS reported the status of the 2019 finding as “open,” as discussed in section 3.6 of this report. Because the finding is still open and the associated actions to close the finding not complete, OFIs document these instances for CNS to consider prior to finding closure.

3.1.2 Communications

CNS established and maintained adequate communications throughout the response with some exceptions noted in the next paragraph. CNS has established plans, procedures, and several interoperable systems to facilitate effective communication among ERO response elements. In the field, the ERO effectively used radio communications and dedicated incident commander (IC) mobile phones for communicating information to the operations center and technical support center (TSC). Between the EOC and TSC, the directors effectively used teleconference capabilities to review the EOC strategies and TSC tactics, which the ERO also tracked on the emergency management information system (EMInS) status boards at both venues and used classified communication systems when required. Similarly, the EOC director and NPO emergency oversight manager effectively used the classified Emergency Communication Network video teleconferencing capability to review the incident response with OST personnel in Albuquerque, New Mexico, and the DOE Headquarters EOC. Finally, CNS maintained adequate communications within individual ERO teams.

However, CNS did not always provide complete, accurate, or validated information during communications among response organizations and exercise control to responders. The operations center staff did not communicate the potential radiological hazard or the PA isolation zone to field responders to ensure safe ICP and staging area locations. Consequently, CNS did not always support the protection of field responders by providing them with key hazard information. (See **OFI-CNS-1**.) Additionally, while the plant shift superintendent (PSS) correctly determined that evacuation was the appropriate predetermined PA for workers in the isolation zone; exercise control instructed the PSS to record the exercise inject PA in EMInS (i.e., shelter in place due to Coronavirus Disease 2019 [COVID-19] protocols). As a result, EMInS did not reflect the correct predetermined PA based on the emergency action level (EAL) and other ERO elements could not validate that the appropriate PA had been implemented. Exercise control did not correctly manage the documentation of decisions by responders to promote follow-on PA validations in accordance with procedures. (See **OFI-CNS-1**.)

Notifications and Communications Conclusions

Overall, CNS has established effective processes and systems for notifications and communications but did not always execute them proficiently. CNS promptly notified most stakeholders about the incident and maintained frequent communications with the teams and various ERO elements. However, CNS did not validate and communicate some key incident information, allowing errors to go uncorrected, which negatively affected a common operating picture. The PSS did not inform the field responders of the hazards related to the incident and therefore did not ensure their safety.

3.2 Emergency Classification

The objective of this portion of the assessment was to determine whether CNS responders correctly classified the postulated operational emergency as promptly as possible, but no later than 15 minutes after the responsible decision-maker (a PSS) was informed of the incident.

The PSS promptly and accurately classified the operational emergency as an SAE, as per procedures. The PSS completed incident classification within 15 minutes after the PSS was informed of the incident. The PSS used EMPO-560/EAL-065, *Emergency Action Levels for Office of Secure Transportation Shipments*,

based on incident information provided by fire department dispatch and first responder radio and phone calls. The incident reports provided to the PSS included information concerning a fuel truck collision with an OST SGT inside the Y-12 site boundary. Fuel from the fuel truck leaked out and ignited, starting a fire. Initially, the status of the SGT cargo was unknown, but the provided information was sufficient for the PSS to enter the applicable EAL and declare an SAE. Personnel in the TSC and EOC reviewed EAL information and verified the SAE classification.

Overall, CNS has developed effective processes and tools for prompt and correct classification of emergencies.

3.3 Protective Actions

The objective of this portion of the assessment was to evaluate the capability of a CNS PSS to identify and implement predetermined PAs to personnel onsite within 10 minutes for the SAE classification.

In the operations center, the lead PSS identified predetermined PAs and had them promptly announced to site workers and classified the incident as an SAE. The PSS used the appropriate EAL (EMP0-560/EAL-065), designed for a vehicle fire transporting a large quantity of radioactive material in an unknown condition, to identify a circular isolation zone with a 330-foot radius for evacuation and a downwind PA zone of 1,000 feet for sheltering. The EAL technical basis for this type of transportation incident is derived from the *U.S. Department of Transportation Emergency Response Guidebook*, Guide 165.

The PSS's order of data entry into the Your Area Mapping System (YAMS) program, a web-based geographical information system (GIS), caused the PA zone to enlarge. The PSS first entered the PA zone data from the EAL, followed by release point data into YAMS to identify buildings and assembly stations within the PA zone. This order of data entry deviated from the training provided to PSSs for an outside release. In doing so, YAMS data inputs changed the downwind distance of the PA zone from 1,000 feet to a default value of 1,500 feet. In this case, the YAMS projection showed a larger PA zone than the EAL, which conservatively added more buildings under the PA.

YAMS also identified one assembly station within the PA zone and, therefore, the PSS made a safe selection of the site's New Hope Center as an alternate location. At that time, a controller advised the PSS that personnel in the buildings within the isolation zone would simulate sheltering in place to maintain safe social distancing while COVID-19 protocols were in effect. The shelter-in-place PAs within the PA zone were also simulated. Using the results from YAMS and controller instructions, the PSS prepared a scripted PA message and directed an announcement of the message over the public address system. The PSS completed these actions in a timely manner, well within the required 10 minutes after the PSS classification of the incident.

CNS adequately implemented appropriate methods for protecting the ERO and most on-scene responders from the potential radioactive material release. The ERO activation message included safe route information, and the IC selected safe ICP and staging area locations. The IC set up the ICP and staging area at approximately 500 feet upwind of the scene and ensured that responders used proper personal protective equipment within the established hot zone. Unified command, with support from the Y-12 protective force, controlled access to the potentially contaminated areas surrounding the incident scene and ensured that radiation control technicians surveyed existing personnel, equipment, and fire response assets for radioactive contamination. Similarly, emergency medical services personnel surveyed injured personnel for radioactive contamination before placing them in the ambulance for offsite transport. However, the operations sector command directed the responding ambulance driver to take a route that traversed a potential radiological plume twice before the ERO confirmed that a release did not occur,

when a safer route was available. This unnecessarily placed the responders and injured personnel at risk, exposing them to a potential radiological inhalation hazard. (See **OFI CNS-1**.)

3.4 Consequence Assessment

The objective of this portion of the assessment was to determine whether CNS consequence assessment activities provide a conservative, timely initial assessment; accurate projections using incident conditions; and supportive assessments throughout an emergency.

CNS demonstrated effective capabilities to conduct consequence assessments throughout an emergency and communicate results to key response personnel and authorities. During the exercise, the consequence assessment team (CAT) appropriately used dispersion modeling programs, EALs, emergency planning hazard assessments, GIS mapping, EMInS, video conferencing, a secure line, and telephones to verify, develop, and distribute consequence assessment results. The CAT effectively used the meteorological monitoring system to determine current meteorological data and applied information used in the emergency planning hazards assessment such that the dispersion results estimated worst-case consequences. However, CNS did not finalize or post this activity in EMInS after a decision by the EOC director and the consequence assessment manager. OST provided a reliable determination that there was no compromise to the OST trailer and, therefore, no resultant radioactive material release. Once CNS eliminated the potential for a radioactive material release, the CAT focused on the fuel spill from the CNS vehicle, which the CAT quickly determined was not a significant hazard for on-scene response personnel. Overall, the CAT accurately and adequately provided consequence assessments throughout the incident response.

3.5 Emergency Operations System

The objective of this portion of the assessment was to determine whether the EOS provides centralized collection, validation, analysis, and coordination of information related to an SAE incident response, while relieving the on-scene responders of burdens that can be performed elsewhere, to achieve a well-coordinated, well-understood, and effective response.

CNS implemented an effective EOS that supported on-scene responders and provided onsite and offsite EROs with situational awareness and a common operating picture throughout the response to the postulated incident. In addition, CNS and NPO have adequately established and maintained interface capabilities with OST, in accordance with DOE Order 151.1D. During the exercise, CNS and NPO adequately coordinated, communicated, and integrated applicable aspects of emergency planning, preparedness, and readiness with OST. As required by DOE Order 151.1D, CNS has appropriately integrated requirements from the *Concept of Operations between NNSA Host Sites and the OST* and the *OST Emergency Planning Hazards Assessment for Transportation Operations* into the Y-12 emergency plan, emergency public information plan, and Y-12 EALs.

Furthermore, EMInS provided an efficient means of collecting, validating, and disseminating information through a network of workstations in Y-12 response facilities and offsite command centers, including the OST transportation emergency control center (Albuquerque, New Mexico), Tennessee Emergency Management Agency EOC (Nashville), and DOE Headquarters, which sufficed as NPO status updates to Headquarters during the postulated emergency. In addition, EMInS provided integrated computer databases, GIS mapping, and video capabilities to gather, store, and display relevant information. CNS effectively used YAMS for analysis and display of incident information, including initial PAs. Additionally, NPO and CNS effectively managed emergency public information data and approvals for public release by the joint information center. Preapproved, Y-12-specific factoids expedited the release

of public information via social media, and the EOC cadre used EMIInS to effectively collect and disseminate nine emergency public information data approvals for public release.

The EOC classification officer continuously monitored EMIInS, YAMS, and other ERO products (e.g., news releases, social media posts, Y-12 factoids, and consequence maps) and confirmed beforehand that CNS had only posted or released unclassified information to offsite response locations. However, CNS intentionally did not enter numerous data and information into EMIInS because of the level of classification. The EOC classification officer stated that any mention of OST, SGT, date, shipment, movement, content, or specific truck/trailer protections could be classified as Secret Restricted Data. In the exercise critique, CNS participants appropriately self-identified the importance of conducting additional exercises to increase proficiency in processing classified information during an emergency. Furthermore, CNS and NPO self-identified the need for an OST representative in the Y-12 EOC to support situational awareness, in accordance with the *Concept of Operations between NNSA Host Sites and the OST*.

CNS and NPO implementation of the EOS facilitates readiness activities and encourages close partnership between Headquarters and field elements to promulgate integration of emergency response capabilities. Efforts to supplement Y-12 personnel with CNS personnel from the Pantex Plant (Pantex) strengthened the EOS. The staff augmentation provided cross-training opportunities and the export of foundational practices. Recognizing benefits of the staff augmentation employed by NPO, the Department's Emergency Management Enterprise continues to champion these actions to enhance Department-wide emergency management proficiencies and increase response capabilities. **(Best Practice)**

Overall, CNS implements an effective EOS through plans, procedures, and information management tools that provide the ERO with adequate situational awareness and a common operating picture during an OST incident as the host site, with a few exceptions noted in section 3.1 of this report. CNS has validated the integration of onsite plans with OST, which was the result of an ongoing effort in offsite planning. Finally, CNS adequately demonstrated several effective response tools and processes supporting injured personnel identification, status, and tracking (discussed in section 3.3), PA decision-making, and the initial press release and public information approval process.

3.6 Follow-up of 2015 and 2019 Findings

3.6.1 Office of Enterprise Assessments Review of the Y-12 National Security Complex Emergency Management Exercise Program, August 2015

The objective of this portion of the assessment was to determine whether corrective actions effectively addressed Finding F-NPO-1 identified in the *Office of Enterprise Assessments Review of the Y-12 National Security Complex Emergency Management Exercise Program, August 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.

Specifically, NPO did not develop corrective actions within the required time duration for two findings from a fiscal year (FY) 2014 Chief of Defense Nuclear Safety (CDNS) review that described weaknesses in NPO's tracking of hazards surveys and EPHAs, as well as nonconformities with requirements for reviews of the contractor emergency management program every three years.

Following EA identified issues with NPO's development of timely corrective actions, NPO and CNS implemented a detailed process for resolving issues, including timely and formal development of

corrective actions that are tracked through closure using an issues management system. These actions underscore NPO's efforts to improve emergency management and issues management tracking. NPO instituted the following actions and deliverables to address Finding F-NPO-1:

- Revising NPO procedure NPO-3.4.1.1, *NPO Oversight Process*, which describes the process that all NPO organizations are to use to formally resolve issues. This process provides appropriate guidance on developing corrective actions and preventing recurrence. In addition, NPO requires formal tracking of corrective actions (using Pegasus – a computerized issues management tracking system) and the use of objective evidence to close corrective actions. NPO also requires identification of root causes, extent-of-condition reviews, and effectiveness reviews for the two most significant levels of issues.
- Revising NPO-3.4.1.1 to address expectations for self-assessments (planning, conduct, reporting), the use of lessons learned, the corrective action process (preparation, execution, response covering Federal and contractor issues), managing and communicating oversight results in a consistent manner, issues management (Pegasus use, tracking/trending, closure, prioritization/risk ranking, relating assessments, etc.), and periodicity for sending reports and issues to CNS and the framework for transmitting.
- Developing and documenting a phased approach to improve Pegasus issues management, including ensuring that NPO issues are entered individually into Pegasus and include steps to properly close out findings, the addition of reports for closure of assessments, and the addition of issues identified in assessments. Specifically, the NPO Office of Environment, Safety, Health and Quality provides routine training classes and iterations on using Pegasus and entering issues and corrective actions. These processes are documented in the NPO Oversight Toolbox. NPO also created a method to track the progress of metrics and targets that is visible to NPO personnel and further reinforces timely development and dissemination of corrective actions.

Based on these actions and deliverables, EA concludes that NPO has satisfactorily addressed Finding F-NPO-1.

3.6.2 *Emergency Management Assessment at the Y-12 National Security Complex, December 2019*

The objective of this portion of the assessment was to review the status of corrective actions associated with Finding F-CNS-1 identified in the *Emergency Management Assessment at the Y-12 National Security Complex, December 2019*.

Finding F-CNS-1: CNS has not ensured that the training, drill, and exercise programs collectively establish and maintain Y-12-specific emergency response capabilities and responder proficiency. (DOE Order 151.1D, Attachment 3, Paragraph 5.b and DOE Order 151.1D, Attachment 4, Paragraph 15.a.(4))

CNS developed a comprehensive corrective action plan (CAP) to address this finding, which is in an “open” status. To address the extent-of-condition review, CNS coordinated the CAP with Pantex. The Pantex Emergency Management Department developed companion corrective actions, which are tracked separately in the Pantex issues management system.

The CAP describes a detailed causal analysis, which resulted in four apparent causes. CNS performed an extent-of-condition evaluation and determined multiple failures associated with the finding and documented the results in the CAP. CNS also evaluated the finding from a lessons-learned perspective.

CNS developed 17 corrective actions, including timely compensatory measures. The last corrective action is scheduled for completion by June 1, 2022. The corrective actions, which are comprehensive and address each of the four apparent causes, include the following:

- Revising procedures
- Revising the exercise program
- Enhancing ERO training programs, including defining and refining critical ERO tasks
- Developing an implementation plan to document the enterprise emergency management proficiency processes
- Creating a critical task dashboard in EMInS to include at a minimum the status of each critical task
- Developing specific evaluation criteria for exercise evaluation guides, including the specific evaluation criteria used to assess the performance of critical ERO tasks
- Reviewing the effectiveness of the corrective actions during two exercises (beginning 3 to 6 months after completion of the last corrective action) to verify and validate those critical tasks are being performed correctly.

CNS is still implementing the CAP and the planned corrective actions should address the finding. EA will assess the effectiveness of the CAP in the future.

4.0 BEST PRACTICES

Best practices are safety-related practices, techniques, processes, or program attributes observed during an assessment that may merit consideration by other DOE and contractor organizations for implementation. EA identified one best practice as part of this assessment.

NPO and CNS demonstrated a mature emergency response program that actively seeks opportunities to cross-train personnel on all aspects of hazard incident and event response. Specifically, to encourage institutional learning, NPO directed CNS personnel from Pantex to augment the ERO for the exercise. The willingness by NPO and CNS personnel at Pantex and Y-12 to export foundational practices will help the development of emergency management programs, in accordance with DOE Order 151.1D requirements, throughout DOE.

5.0 FINDINGS

There were no findings identified as part of this assessment.

6.0 DEFICIENCIES

There were no deficiencies identified as part of this assessment.

7.0 OPPORTUNITIES FOR IMPROVEMENT

EA identified one OFI to assist cognizant managers in improving programs and operations. While OFIs may identify potential solutions to findings and deficiencies identified in assessment reports, they may also address other conditions observed during the assessment process. This OFI is offered only as a recommendation for line management consideration; it does not require formal resolution by management through a corrective action process and is not intended to be prescriptive or mandatory. Rather, it is a suggestion that may assist site management in implementing best practices or provide potential solutions to issues identified during the assessment.

OFI-CNS-1: Consider improving responder proficiency by incorporating the weaknesses identified in this assessment into the CAP for the December 2019 EA finding (F-CNS-1), including emphasizing:

- Rigorous exercise control in managing the documentation of correct decisions by responders to promote follow-on PA validations
- The need to support field responders by providing them with key hazard information
- The need to keep personnel out of a projected plume until it is confirmed that a HAZMAT release has not occurred.

Appendix A Supplemental Information

Dates of Assessment

Onsite Assessment: August 30 – September 2, 2021

Office of Enterprise Assessments (EA) Management

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