



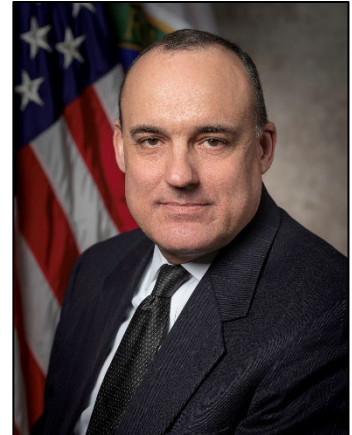
U.S. DEPARTMENT
of **ENERGY**

Office of
Enterprise Assessments

Fiscal Year
2025

Year-End Report
December 2025

I am pleased to provide this summary of major activities completed by the Office of Enterprise Assessments (EA) during fiscal year (FY) 2025 across our three mission areas: independent oversight (assessments); safety and security enforcement; and safety, security, and leadership training provided by the National Training Center.



In this report, readers will find a description of our corporate planning, analysis, and integration process; an overview of our independent oversight, enforcement, and training programs; highlights of our assessment reports and other documents issued during the year, with links to unclassified reports and documents; a compilation of best practices and recommendations from assessment reports; and accomplishments in managing the EA organization during FY 2025.

Our organization has established a set of [Mission, Vision, and Values](#) statements. I highlight our Vision Statement here:

"To be a respected partner in building a high-performance Department of Energy culture through our risk-informed, fact-based programs that advance continual learning."

This Vision Statement reflects a core principle of our organizational culture and aspirations as a team and drives our daily work. We appreciate the opportunity to support the Department of Energy in this way and look forward to continuing to work with our colleagues across the agency during FY 2026 and beyond.

John E. Dupuy
Director
Office of Enterprise Assessments

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Acronyms

BMI	Battelle Memorial Institute
BNI	Bechtel National, Incorporated
CAIRS	Computerized Accident/Incident Reporting System
C.F.R.	Code of Federal Regulations
CSC	Construction Safety Consultants
DNFSB	Defense Nuclear Facilities Safety Board
DOE	U.S. Department of Energy
DUF6	Depleted Uranium Hexafluoride
EA	Office of Enterprise Assessments
EA-10	Office of Enforcement
EA-20	Office of National Security Assessments
EA-30	Office of Environment, Safety and Health Assessments
EA-40	Office of Resource Management
EA-60	Office of Cyber Assessments
EFCOG	Energy Facility Contractors Group
EHSS	Office of Environment, Health, Safety and Security
ERO	Emergency Response Organization
ESS	Engagement Simulation Systems
ETMC	East Tennessee Mechanical Contractors
FFPO	Fluor Federal Petroleum Operations
FISMA	Federal Information Security Modernization Act
FR	Facility Representative
FTCP	Federal Technical Capability Panel
FY	Fiscal Year
GIS	Geographic Information System
HPC	High Performance Computing
IN	Office of Intelligence and Counterintelligence
ISMS	Integrated Safety Management System
LANL	Los Alamos National Laboratory
M&O	Management and Operating
MCS	Mid-America Conversion Services
MSTS	Mission Support and Test Services
NCS	Nuclear Criticality Safety
NNSA	National Nuclear Security Administration
NNSS	Nevada National Security Sites
NQA	Nuclear Quality Assurance
NTC	National Training Center
OCIO	Office of the Chief Information Officer
OFI	Opportunity for Improvement
OIG	Office of the Inspector General
OII	Occupational Injury and Illness

Acronyms (cont'd.)

Omni	Omni Services
ORNL	Oak Ridge National Laboratory
ORR	Oak Ridge Reservation
OSHA	Occupational Safety and Health Administration
PNNL	Pacific Northwest National Laboratory
PNOV	Preliminary Notice of Violation
PPPO	Portsmouth Paducah Project Office
PXD	PanTeXas Deterrence
RWD	Restricted Workday
S&S	Safeguards and Security
SNL	Sandia National Laboratories
SQA	Software Quality Assurance
SSCs	Structures, Systems, and Components
TQP	Technical Qualification Program
WAPA	Western Area Power Administration
WSHP	Worker Safety and Health Program
Y-12	Y-12 National Security Complex

Executive Summary

The U.S. Department of Energy (DOE) Office of Enterprise Assessments (EA) implements (1) an internal independent assessment function for the Department that examines operations and performance relating to safeguards and security (S&S); cybersecurity; environment, safety, and health (nuclear, industrial, and construction); emergency management; and other critical functions of the DOE enterprise; (2) the DOE enforcement provisions of the Atomic Energy Act of 1954, as amended, in the areas of nuclear safety, worker safety and health, and classified and sensitive information security; and (3) a broad curriculum of nuclear safety, S&S, protective force, and leadership training designed to maintain and enhance the proficiency and competency of the Department's Federal and contractor workforce in fulfilling DOE's missions.

EA establishes an Operational Plan at the start of each fiscal year (FY) to communicate its Strategic Goals for the upcoming year and identify performance objectives, action items, and deliverables for each EA first-tier office that are intended to fulfill the Strategic Goals and EA's security and safety functions, responsibilities, and authorities. At the end of the FY, each first-tier office summarizes its key accomplishments and activities relative to the Strategic Goals and Operational Plan deliverables, which serves as the basis for this report. In FY 2025, EA:

- Effectively fulfilled its Strategic Goals throughout the year, a notable accomplishment considering the operational challenges resulting from significantly reduced federal staffing. This consistent performance exemplifies the EA team's steadfast commitment to achieving mission objectives and its adaptable approach to program management.
- Issued 64 independent oversight reports that include 58 reports for assessments of 26 DOE locations or entities; 3 rollup reports conveying safety and emergency management-related lessons learned; and 2 cybersecurity rollup reports supporting annual Federal Information Security Modernization Act reporting. The assessment reports consisted of 21 S&S-related reports; 18 cybersecurity-related reports; and 25 nuclear safety, worker safety and health, and emergency management-related reports.
- Issued 18 enforcement outcomes consisting of 4 Preliminary Notices of Violation, 2 Consent Orders, 2 Settlement Agreements, and 10 Enforcement Letters. The Office of Enforcement also initiated seven enforcement investigations, conducted six onsite investigations and two fact-finding visits, completed one regulatory program assistance review, and issued six advisory notes to DOE field elements conveying concerns about contractor compliance issues. The number of enforcement investigations and outcomes continued to rise in FY 2025, driven by an increase in significant safety and security events and conditions that presented inherently higher levels of complexity, often stemming from intricate technical or factual issues, or involving engagements across multiple contractors and site locations.
- Issued more than 82,000 training certificates representing more than 224,000 hours of student training; maintained International Accreditors of Continuing Education and Training certification; presented the first iteration of the Safeguards and Security Executive Leadership

Training course; collaborated with DOE field elements to address challenging security technical issues and nuclear safety staffing shortages; and the EA National Training Center's Federal Technical Capabilities Support Office facilitated EA attainment of the first-ever Technical Qualification Program accreditation for a DOE Headquarters element, setting a new benchmark for organizational excellence within the agency.

U.S. Department of Energy Office of Enterprise Assessments Fiscal Year 2025 Year-End Report

Mission Program Overview

The U.S. Department of Energy (DOE) Office of Enterprise Assessments (EA) implements (1) an internal independent assessment function for the Department that examines operations and performance relating to safeguards and security (S&S); cybersecurity; environment, safety, and health (nuclear, industrial, and construction); emergency management; and other critical functions of the DOE enterprise; (2) the DOE enforcement provisions of the Atomic Energy Act of 1954, as amended, in the areas of nuclear safety, worker safety and health, and classified and sensitive information security; and (3) a broad curriculum of nuclear safety, S&S, protective force, and leadership training designed to maintain and enhance the proficiency and competency of the Department's Federal and contractor workforce in fulfilling DOE's missions.

The following graphic lists the high-level documents that confer or directly relate to the responsibilities and authorities for EA to carry out its primary functions of independent oversight, enforcement, and training.

Independent Oversight

- DOE Policy 226.2, *Policy for Federal Oversight and Contractor Assurance Systems*
- DOE Order 226.1, *Implementation of Department of Energy Oversight Policy*
- DOE Order 227.1, *Independent Oversight Program*

Enforcement

- Secretary of Energy Designation Order No. S1-DES-EA1-2021
- 10 C.F.R. Part 820, *Procedural Rules for DOE Nuclear Activities*
- 10 C.F.R. Part 824, *Procedural Rules for the Assessment of Civil Penalties for Classified Information Security Violations*
- 10 C.F.R. Part 851, *Worker Safety and Health Program*
- 10 C.F.R. Part 1017, *Identification and Protection of Unclassified Controlled Nuclear Information*

Training

- DOE Order 426.1, *Department of Energy Federal Technical Capabilities*
- Various DOE Orders (225.1, 470.1, 470.4, 471.7, 472.2, 473.1, 473.2)

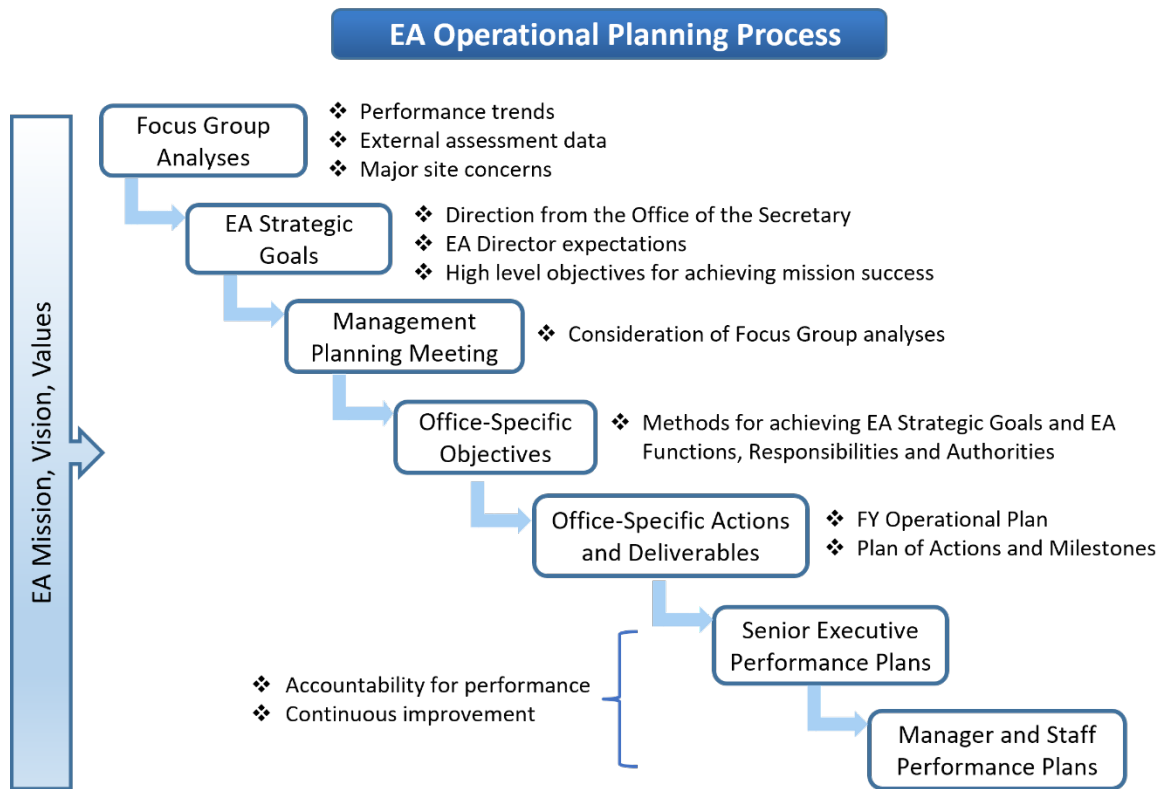
Planning and Integration

EA establishes an Operational Plan at the start of each fiscal year (FY) to convey Strategic Goals for the upcoming year and identify performance objectives, action items, and deliverables for each EA first-tier office that are intended to fulfill the Strategic Goals and EA's functions, responsibilities, and authorities. At the end of the FY, each first-tier office summarizes its key accomplishments and activities completed relative to the Strategic Goals and Operational Plan deliverables. Those summaries are the basis for this report.

To initiate the FY operational planning process, the EA Director establishes focus groups of subject matter experts from across EA to conduct high-level analyses of DOE security, cybersecurity, and safety performance and related Departmental operating conditions in EA's mission areas. The focus groups consider current performance and performance trends derived from EA assessment and enforcement activities and other data sources; relevant information from external entities such as the DOE Office of the Inspector General (OIG), U.S. Government Accountability Office, and Defense Nuclear Facilities Safety Board (DNFSB); and major DOE site issues that could impact or should guide EA activities. The results of these analyses serve as the basis for discussion at a mid-FY EA leadership planning meeting. Information from the analyses conducted in FY 2025 is summarized in the next section.

In the next step of the planning process, EA reviews and updates its Strategic Goals, if necessary, and reviews and updates its functions, responsibilities, and authorities document to identify changes in DOE policy or safety and security responsibilities that could impact EA operations. Then, based on the results of the leadership planning meeting, the EA first-tier assessment offices (Office of National Security Assessments [EA-20]; Office of Environment, Safety and Health Assessments [EA-30]; and Office of Cyber Assessments [EA-60]) begin developing proposed activities for the next FY at each DOE site, including an estimated timeframe, topic areas, team size, duration, and rationale for each activity. Finally, using all available planning information, each EA first-tier office drafts performance objectives, action items, and deliverables for the upcoming FY for discussion with and approval by the EA Director and Deputy Director for incorporation into EA's FY Operational Plan.

The following graphic depicts EA's overall planning and integration process.



The focus group work and leadership planning meeting help identify areas where EA offices can integrate their efforts to enhance EA's support to the Department. Examples of internal collaboration in FY 2025 include:

- EA's Office of Enforcement (EA-10) briefed EA-30 and National Training Center (NTC) staff on nuclear safety issues subject to enforcement investigations at two field sites to increase awareness about the causes of the events and issues involved.
- EA-20 augmented EA-30 and EA-60 assessment activities to evaluate safety and cybersecurity-related operations that could have S&S implications.
- EA-60 collaborated with EA-10 to provide cybersecurity expertise for an ongoing information security investigation, identifying unrecognized cybersecurity consequences and cybersecurity requirements that were not properly addressed.
- EA-60 leveraged EA-20 experience during a first-of-its-kind cybersecurity assessment of a counter-unmanned aerial system, gaining insights on the growing crossover between safeguards and cybersecurity while highlighting the impacts of cybersecurity risks to safeguards and security systems and missions.

- EA-60 hosted an observer from EA's Office of Emergency Management Assessments at a cyber assessment of a Power Marketing Administration to consider areas of shared impact between cybersecurity and emergency response activities.
- EA-10, EA-20, and EA-60 provided support and expertise to the NTC in delivering nuclear safety and S&S executive leadership and staff training.
- EA-10 and the EA assessment offices continue to collaborate with the NTC throughout the year to discuss best practices, opportunities for improvement (OFIs), and lessons learned from enforcement and assessment activities that can be incorporated into NTC training and mentoring to benefit other DOE organizations.

Future planning efforts will continue to emphasize synergy and collaboration within EA to maximize efficient, effective, and advantageous use of EA resources.

Focus Group Analyses

The five EA focus groups convened in FY 2025 were tasked with using readily available internal and external information to evaluate and synthesize DOE and contractor performance in the respective areas of S&S, cybersecurity, nuclear safety, worker safety and health, and emergency management.

EA's focus group on S&S noted that while there are areas of concern, special nuclear material and other assets in DOE custody are generally properly protected. DOE sites employ defense-in-depth protection systems with well-trained and -equipped protective forces, and sites have corrected recent adverse observations concerning intrusion detection and delay system testing and oversight of material control and accountability measurements. Sites are also employing new technologies to improve security operations. These include an application developed to support unclassified foreign national access approvals and security plans, and an automated vehicle environmental monitoring system that activates vehicle functions to ensure the safety of canine occupants used for security purposes. Despite these positives, EA assessments have identified several ongoing negative trends in S&S performance. Most notably, sites do not always identify and effectively communicate security risks. The analytical bases for site security programs are not always analyzed per applicable requirements and do not necessarily encompass all security-related assets and site operations, which can result in inconsistent risk characterization or unknown security risks. Many sites exhibit weaknesses in implementing technical security programs, and site issues management and performance assurance programs continue to lack consistency in identifying and addressing security weaknesses in a manner that prevents recurrence.

The cybersecurity focus group acknowledged pockets of positive and improving performance at some of the sites assessed by EA in FY 2025, but also identified broader areas of concern that continue to challenge the Department's ability to manage cybersecurity risks effectively. For

example, the Department is effectively protecting edge systems and services from known vulnerabilities and misconfigurations, but attack detection for these critical devices varies widely across the department; and larger DOE programs demonstrate the ability to respond to threats more effectively than smaller programs, which tend to have less well-developed incident detection capabilities and are reliant on protective security controls that can sometimes be bypassed in certain situations. The lack of resources posed by a reduced federal workforce continues to be a significant challenge. While greater reliance on automation helps to detect intrusions promptly, increasing requirements and a need for personnel with requisite skills are hampering progress in this area. In addition, new requirements and the federal cybersecurity requirements framework continue to focus on compliance rather than risk management, increasing the burden to implement the same requirements across DOE's widely varied programs and projects regardless of mission, technology, or risk tolerance. Areas of concern that EA will continue to focus on include management of shared risk (e.g., systems where a variety of programs, vendors, subcontractors, or others operate part of the security capabilities under a singular risk authority/acceptance); use of technical solutions for safety systems and physical security concerns (e.g., unmanned aircraft systems); use of artificial intelligence in mission and business processes, such as personnel vetting, and software and other process development; and interconnection of operational technology and industrial control systems to general support systems.

The nuclear safety focus group noted that there has been an increased focus on improving nuclear safety processes and their implementation, and a renewed interest in establishing safety culture principles for nuclear and non-nuclear activities. The Department continues to experience challenges with formality of operations, safety basis development and implementation, quality assurance (QA) programs, and issues management. EA has observed safety bases that are not developed based on strong engineering principles, which may lead to selection of insufficient controls to protect the worker, public, and environment from radiological hazards; inadequate development and implementation of QA programs that is systemically reducing the Department's ability to ensure its nuclear operations meet safety and performance expectations and requirements; training and qualification programs that are inconsistent with approved methodologies and not based on appropriate requirements; and misunderstandings and misapplications of DOE nuclear safety requirements. Furthermore, an EA multi-year, complex-wide review of issues management identified extensive weaknesses relating to worker involvement in issue identification; identification, analysis, and correction of the causes of issues; and timely issue resolution.

The worker safety and health focus group noted that contractors continue to demonstrate well-documented integrated safety management system (ISMS) programs that have been adequately integrated into their work planning and control processes. However, EA assessments and enforcement activities have highlighted challenges in effectively implementing ISMS program elements during work execution. Enforcement activities reflect numerous inadequacies in work planning and control, including ineffective or nonexistent job or process hazard analyses, insufficient planning for non-routine and skill of the craft tasks, deficiencies in worker training and qualifications for assigned work activities, and inadequate oversight of

subcontractor work. Assessments have identified that workers continue to be exposed particularly to industrial hygiene hazards due to poor definition of the work scope and/or incomplete identification and control of various chemicals, and to electrical and lockout/tagout hazards due to their being inadequately identified, analyzed, and/or controlled during work planning or insufficiently addressed in work step procedures. Assessments of federal oversight offices indicate that they have established generally effective programs and procedures for overseeing contractors. Of the assessments of federal oversight at three sites, only one resulted in deficiencies, which were predominately related to self-assessments and Technical Qualification Program (TQP) implementation.

The emergency management focus group noted that site-based emergency response programs are generally effective and that federal site personnel with emergency management duties are meeting TQP requirements. On the contrary, at the enterprise level, DOE has not implemented a coordinated framework capable of responding effectively to the suite of potential incidents and events. The Department lacks processes, procedures, and communication channels to ensure an effective DOE-wide response framework, and Department-wide communications and emergency procedures are rarely tested or integrated into training and exercises. Recurring issues identified by the OIG, DNFSB, and EA continue to result in degraded Department-wide emergency management capabilities and performance that is exposing the Department to risk. At the site level, EA continues to identify deficiencies in issues management. Causal analyses for issues are not always employed where warranted and closure of corrective actions for EA assessment findings are not consistently timely and/or effective. As a result, while symptoms are often addressed, root cause emergency management program issues remain uncorrected.

Independent Oversight

EA is responsible for implementing an independent oversight program for security and safety within DOE according to DOE Orders 227.1, *Independent Oversight Program*, and 226.1, *Implementation of Department of Energy Oversight Policy*. To carry out this responsibility, EA conducts independent assessments and other activities to identify gaps and vulnerabilities in programs and performance related to S&S, worker and public health and safety, emergency management, and cybersecurity. EA considers relative risks, past performance, trends in safety and security across DOE, and results of internal analysis in selecting the specific oversight activities it conducts. The program is intended to assist DOE line managers in recognizing and mitigating conditions that could negatively impact workers, the public, the environment, or national security. It is also intended to complement, not replace, DOE line management's responsibility to monitor and oversee contractor security and safety programs and performance, manage contracts, and conduct self-assessments.

Independent oversight assessment reports are provided to DOE senior managers, applicable DOE program and line managers, contractor managers, and congressional oversight committees. The reports are also shared with other DOE stakeholder organizations, such as the Offices of Environment, Health, Safety and Security (EHSS); OIG; Chief Information Officer (OCIO); and

Intelligence and Counterintelligence (IN), as applicable, to promote improvements in security and safety performance. EA posts all assessment reports that do not contain classified or controlled unclassified information on the Department's website to promote transparency with the public.

Independent Oversight Accomplishments

In FY 2025, the EA independent oversight offices issued 64 assessment reports. This includes 58 reports for assessments of 26 DOE locations or entities; 3 rollup reports conveying safety and emergency management-related lessons learned; and 2 cybersecurity rollup reports supporting annual Federal Information Security Modernization Act (FISMA) reporting. The table below identifies the assessment locations for the independent oversight reports issued in FY 2025 by assessment area. Reports for individual locations and activities may identify best practices, findings requiring corrective action, deficiencies, and OFIs. The safety-related lessons learned rollup reports provide recommendations based on analyses of the results of similar assessments conducted at multiple field locations. The best practices and recommendations from these reports are provided in appendix B. The ensuing paragraphs provide more information about FY 2025 activities in each assessment area.

FY 2025 EA Independent Oversight Assessment Reports by DOE Location/Entity

Under Secretary/Assistant Secretary/Program and Location	Safeguards & Security	Cybersecurity	Nuclear Safety & Environment	Nuclear Engineering & Safety Basis	Worker Safety & Health	Emergency Management
NATIONAL NUCLEAR SECURITY ADMINISTRATION (NNSA)						
Lawrence Livermore National Laboratory	1			1		1
Los Alamos National Laboratory	2		1		1	
Nevada National Security Sites	1	1				
Office of Secure Transportation	1					
Pantex Plant	1				1	1
Savannah River Site			1			
Sandia National Laboratories	1					
Y-12 National Security Complex	2		2		1	
NNSA Headquarters		2				
Enterprise Assets		2				
SCIENCE and INNOVATION						
Argonne National Laboratory		1	1			
Brookhaven National Laboratory		1				
Idaho National Laboratory	1					
Lawrence Berkeley National Laboratory		1				
Oak Ridge National Laboratory	1			1		1
Pacific Northwest National Laboratory			1			
ENVIRONMENTAL MANAGEMENT						
Hanford Site	1		4			
Portsmouth/Paducah Sites	1	1	1			
Savannah River Site					1	
Waste Isolation Pilot Plant	1					
DOE Headquarters Elements		2				
Focused Security Assessments	7					
Intelligence and Counterintelligence		4				
Power Marketing Administrations		1			1	

FY 2025 EA Independent Oversight Assessment Reports by DOE Location/Entity

Under Secretary/Assistant Secretary/Program and Location	Safeguards & Security	Cybersecurity	Nuclear Safety & Environment	Nuclear Engineering & Safety Basis	Worker Safety & Health	Emergency Management
Strategic Petroleum Reserve						1
Rollup and Cross-cutting Reports		2		1	1	1

A. Office of National Security Assessments (EA-20)

EA-20 issued 21 reports for S&S appraisals in FY 2025, consisting of 4 multi-topic assessments, 6 limited-notice performance tests, 7 focused assessments of selected security programs or facilities, 3 focused assessments supporting site requests for training and technical assistance, and 1 targeted assessment of a particular security area.

The office continued its robust efforts to collate and share pertinent S&S information across the DOE complex. This included delivering concise, stakeholder-focused summaries following all major assessments; completing 2 tracking and trending reports that are used to brief the DOE-wide S&S community on EA observations of cross-cutting strengths, best practices, and areas needing corrective action; and conducting 10 expert-led learning sessions to reinforce technical excellence and support knowledge transfer across the enterprise. EA-20 shares its tracking and trending information with agency and interagency stakeholders to promote constructive dialogue about S&S issues and facilitate continuous improvement in DOE S&S programs.

EA-20 provided specialized expertise and technical assistance on multiple occasions to support DOE field elements. This included providing expertise to the Y-12 National Security Complex (Y-12) training staff to support execution of opposing force training programs; assisting in planning for a National Nuclear Security Administration (NNSA) Active Assailant Response Workshop; and delivering engagement simulation systems (ESS) training and exercise support to the Los Alamos National Laboratory (LANL), Nevada National Security Sites (NNSS), and Pantex Plant to enhance the physical protection of high-value assets. EA-20 also supported the Department of Defense in a force-on-force exercise, providing DOE assets and best practices that bolstered national readiness. Office staff participated in working groups, interagency briefings, and policy reviews, including hosting senior staff from the Nuclear Regulatory Commission and briefing the Office of Management and Budget. EA-20 also contributed to DOE policy development by providing input on revisions to key S&S program-related directives.

EA-20 continued to manage the DOE Composite Adversary Team (CAT) and maintain ESS equipment, delivering realistic training on adversary tactics and techniques. In addition to providing annual training to the DOE CAT members, EA-20 provided S&S response training to U.S. Marine Corps personnel assigned to naval nuclear bases. The office also received a Secretary of Energy Achievement Award for its pivotal role in resolving Department-wide safety concerns related to blank fire adapters.

B. Office of Environment, Safety and Health Assessments (EA-30)

EA-30 conducts assessments of nuclear safety and the environment, nuclear engineering and nuclear facility safety bases, worker safety and health, and emergency management. The office issued 25 reports in FY 2025, including 3 rollup reports conveying lessons learned and recommendations derived from analyzing the results of similar assessments conducted at multiple field sites, and completed 24 field notes documenting operational awareness activities. In addition to 135 OFIs, the assessment reports identify best practices in a variety of areas for other organizations to consider for enhancing their safety management programs and operations. The rollup reports identify common strengths and weaknesses, along with overarching recommendations intended to promote organizational learning and improve performance throughout the DOE complex. All of the best practices and recommendations from FY 2025 assessment reports are provided in appendix B.

Nuclear Safety and Environmental Assessments

The Office of Nuclear Safety and Environmental Assessments issued 11 nuclear safety-related assessment reports in FY 2025. Assessment activities focused on evaluating fire protection programs at DOE nuclear facilities and completing a series of assessments designed to support a strong safety culture across DOE. Other assessments evaluated training and qualification programs, conduct of operations, operations safety controls implementation, and criticality safety at select DOE nuclear facilities.

The office completed three independent assessments at high-hazard DOE nuclear facilities to enhance the reliability and management of their fire protection programs. Fire protection systems, structures, and components (SSCs) provide an integral safety function across the DOE complex to protect the health and safety of workers, the public, and environment during normal operations and radiological accident conditions. Many DOE sites have experienced challenges in mitigating risks from aging fire protection infrastructure and effectively managing associated inspection, testing, and maintenance activities. EA subject matter experts performed comprehensive evaluations of design and engineering, maintenance and work planning, inspections, surveillance and testing, operations, training and qualifications, and issues management processes related to fire protection programs and SSCs with the potential to impact site nuclear safety. The strengths and vulnerabilities identified during these assessments can assist sites in mitigating potential risks to optimal fire protection safety system performance and ensure that workers, the public, and the environment remain protected from radiological hazards during postulated fire events.

EA-30 completed its final independent assessment in a multi-year effort to strengthen safety culture across the DOE complex by evaluating the effectiveness of safety culture survey instruments and their interpretation at a cross-section of DOE sites. When properly developed, executed, and evaluated, safety culture surveys provide organizations with invaluable institutional feedback to improve the health of their safety culture programs. Previous EA safety culture sustainment assessments across multiple DOE sites found significant areas for

improvement in the effective development, implementation, and formal analysis of safety culture surveys. The assessments conducted in FY 2024 and 2025 provide contractor and field office management with value-added insights and OFIs to enhance the quality of organizational survey tools and data interpretation methods based on best practices from government and industry safety culture programs. Key results from these and previous safety culture survey assessments are captured in a lessons learned report to be issued soon.

Nuclear Engineering and Safety Basis Assessments

The Office of Nuclear Engineering and Safety Basis Assessments issued two safety management system assessment reports and a lessons learned report summarizing the results from five assessments of software quality assurance (SQA) program implementation at select DOE nuclear facilities. The *Lessons Learned from the Assessment of Software Quality Assurance Implementation at U.S. Department of Energy Nuclear Facilities* report highlights the results of a two-phase enterprise-wide assessment of SQA implementation conducted by EA between July 2022 and May 2024. The assessment evaluated SQA programs of over 25 contractor organizations across the enterprise and then assessed 8 of those programs as implemented at 5 DOE sites. The report identifies several strengths, including three best practices related to the creation of higher risk grading levels for software not used directly for nuclear safety. The report also identifies several weaknesses and provides 16 recommendations for improving enterprise-wide SQA implementation. The recommendations provide guidance for improving SQA program requirements, implementation, training, contractor assurance, and field element oversight (see appendix B).

EA-30 conducted two independent assessments at hazard category 1 or 2 DOE nuclear facilities to enhance the reliability and management of SSCs designed to protect the health and safety of workers, the public, and the environment during normal facility operations and accident conditions. The assessments encompassed technical safety requirement (TSR) derivation and implementation for select active safety systems at specific high-risk nuclear facilities. They specifically evaluated whether selected active SSCs were appropriately developed as TSR controls and operated and maintained in such a manner as to ensure the SSCs can reliably perform the intended function of protecting workers and the public from analyzed hazards. The strengths and vulnerabilities identified during these assessments can assist sites in mitigating potential risks to optimal safety system performance and ensure that workers, the public, and the environment remain protected from radiological hazards.

The office also continued to conduct oversight of high-hazard nuclear facility design/construction projects in accordance with the FY 2025 Consolidated Appropriations Act, section 302, to ensure that the projects follow nuclear safety requirements pursuant to 10 C.F.R. Part 830, *Nuclear Safety Management*. Oversight activities focused on the development of safety bases and application of nuclear quality control requirements for design and construction. The reviews completed in FY 2025 include the Hanford Site cesium and strontium capsule project, Waste Treatment Plant High-level Waste Facility preliminary documented safety analysis, and Low Activity Waste operational readiness review, along with Idaho National

Laboratory's Laboratory for Operation and Testing in the United States project preliminary documented safety analysis. Significant progress was also made in reviewing the LANL Technical Area 55 safety basis upgrade. These activities help ensure that high-hazard nuclear facilities are designed and constructed in a manner that provides reasonable assurance they can operate safely and in a manner that adequately protects workers, the public, and the environment.

Worker Safety and Health Assessments

The Office of Worker Safety and Health Assessments issued five reports for assessments conducted at five DOE locations in FY 2025 and one lessons learned report. The *Lessons Learned from Assessments of Occupational Injury and Illness Recordkeeping and Reporting at the U.S. Department of Energy Sites During Calendar Years 2022-2024* report analyzes the results of four EA assessments of contractor occupational injury and illness (OII) reporting. The report also includes a comparative analysis using results from the 2019 EA OII recordkeeping and reporting lessons learned report to identify trends. The report presents the best practices and common weaknesses identified by EA in those assessments and provides new recommendations (see appendix B) designed to promote organizational learning and improve OII recordkeeping and reporting performance across the DOE complex.

EA-30 published two reports for assessments of work planning and control in FY 2025 addressing conventional explosive operations and cleanup work involving liquid waste subcontractors. These reports discuss the selected site's effectiveness in implementing the ISMS core functions of defining the work scope, identifying hazards, implementing hazard controls, performing work, and gathering and analyzing feedback. These assessments provide feedback to assist sites in ensuring they are effectively protecting employees from industrial safety and hygiene hazards to reduce workplace injuries and illnesses. EA-30 also conducted an independent assessment of motor vehicle safety at LANL. This assessment, requested by the site, evaluated the contractor's motor vehicle safety requirements, including traffic and pedestrian safety, and reviewed safety culture and contractor employee perceptions about motor vehicle, traffic, and pedestrian safety. The report's conclusions were shared by the Los Alamos Field Office Manager with all DOE field office managers as an example of the beneficial work products generated by EA.

Emergency Management Assessments

The Office of Emergency Management Assessments issued four reports for emergency management-related assessments, three of which involved evaluating response plans and performance during full-scale site emergency preparedness exercises, and one lessons learned report in FY 2025. The *Lessons Learned from Assessments of Emergency Management Programs at U.S. Department of Energy Sites During Fiscal Years 2022-2024* report analyzes the results of 21 EA emergency management assessments to characterize overall Departmental performance at the Headquarters, field element, and DOE contractor levels in conducting program oversight and implementing emergency management program requirements. The

report conveys the best practices and common weaknesses identified in those assessments and provides recommendations designed to promote organizational learning and improve emergency planning, preparedness, and response performance across the DOE complex (see appendix B). The report results were briefed to various enterprise-wide forums, including multiple Emergency Management Special Interest Group subcommittees, at the Nuclear Facilities Safety Program Workshop, and to the Energy Facility Contractors Group (EFCOG).

To further advance process improvements and drive enterprise-wide emergency management proficiency, EA-30 shared perspectives, insights, and analysis of technical planning, consequence assessment, and exercise performance with emergency response, nuclear safety, and security specialists throughout the Department. EA identified areas for improvement and shared well-developed and effectively implemented practices in readiness assurance programs, emergency operations systems, and issues management processes. Featured as a keynote panelist at a conference attended by over 100 emergency management and safety practitioners from across the Department, EA discussed observations from past assessments in the areas of response planning, incident categorization and classification, and emergency protective actions implementation. Following the panel, EA interacted with a broad network of emergency management professionals on efforts to provide oversight of DOE and NNSA emergency management programs.

EA-30 emergency management specialists served as subject matter experts on the integrated project team developing DOE Order 151.1E, *Comprehensive Emergency Management System*. Office staff provided technical support to ensure that the order provides a viable construct to validate emergency management program effectiveness and ensure that Headquarters and field elements can coordinate, plan, prepare, and respond to all-hazard emergencies. These efforts refined existing requirements while ensuring emergency plans, procedures, and resources are sufficiently maintained, exercised, and evaluated to ensure readiness and promote a culture of continuous improvement.

C. Office of Cyber Assessments (EA-60)

EA-60 issued 18 assessment reports for 14 onsite and 4 remotely conducted assessments in FY 2025. These include the annual FISMA metrics for DOE national security systems and annual Intelligence Community Inspector General FISMA report for the Department, four reports for assessments of IN field intelligence elements, and three reports for remote attack surface assessments of internet facing systems. The office also produced 14 internal site threat reports for use in planning, scoping, and developing strategies for conducting assessments; developed and maintained four program office-level threat profiles to enhance EA-60 awareness and planning processes for future assessments; and produced two threat and assessment focus area reports for high performance computing (HPC) and NNSA pit production.

Many EA-60 activities in FY 2025 were focused on evaluating new technologies and/or applying new assessment approaches to promote effective cybersecurity for rapidly evolving capabilities. Notably, EA-60 completed a first-of-its-kind assessment of a counter-unmanned

aerial system. The system was a pilot program for what is expected to become an NNSA enterprise-wide solution. The assessment identified cybersecurity-related issues that enabled the vendor to secure its internal deployment procedures and make improvements for future implementations of the capability. This effort was recognized as a benchmark assessment supporting NNSA missions. Similarly, EA-60 continued its partnership with IN in conducting the first-ever cyber technical testing of an IN system. This pilot effort provided IN leadership with performance-based results related to system hardening and incident detection capabilities that could not be obtained by interviews and documentation reviews alone. This approach will become a staple for EA-60 assessments of IN networks going forward.

EA-60 collaborated with Sandia National Laboratories (SNL) and Lawrence Livermore National Laboratory to plan and conduct two workshops with the Sandia Information Assurance, red team, and Sandia HPC Information System Security Officer to develop an initial framework for scoping and planning HPC assessments throughout NNSA and DOE. This collaboration represents a community driven approach to developing ways to assess complex systems and share key information about critical threats to these systems that helps to promote stakeholder buy-in and a unified approach to operational improvements. EA-60 also partnered with IN and the NNSA OCIO in conducting a site assistance visit to help the SNL field intelligence element prepare for an inspection by another government agency. Following the visit, EA conducted a tailored assessment to evaluate progress made in developing corrective actions and implementing solutions to address cybersecurity issues. This effort not only strengthened the relationship between EA-60 and the laboratory, but also provided an opportunity to help strengthen the field intelligence element cybersecurity program outside of a traditional assessment setting.

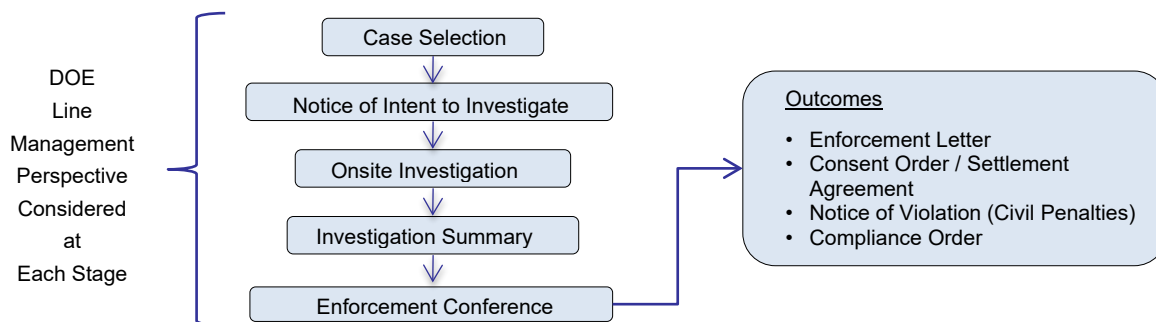
EA-60 participated in the DOE CoPilot effort, an artificial intelligence pilot activity that provided EA insights on potential DOE uses of this capability and allowed EA cybersecurity experts to provide early input on implementation. The office also convened an internal multi-phased cloud assessment working group to identify, develop, and document processes and procedures for EA-60 assessments of federal cloud systems, and conducted research on new cloud security technologies. EA-60 continued its collaborations with federal partners external to DOE, most notably with the Cybersecurity and Infrastructure Security Agency to secure access to cybersecurity tooling and Cyber Threat Intelligence platforms. This initiative supplements EA-60's internal processes and cybersecurity capabilities, enhancing the ability to identify vulnerability artifacts in support of EA oversight activities and interfaces.

EA-60 also continued to hone its technical capabilities. The office updated its continuous network scanning program to include new objectives that focus on bringing together multiple data sources to develop a comprehensive picture of the DOE attack surface. While primarily focused on use during assessments, the updates also provide an ability to rapidly add new indicators to scan for potential areas of vulnerability for the Department. EA-60 technical testing experts enhanced their onsite assessment techniques by learning about and testing Active Directory Certificate Services, which has identified various vulnerabilities throughout the

Department. EA-60 efforts have increased security at assessed sites by providing information on this often-misconfigured service.

Safety and Security Enforcement

EA implements DOE's safety and security enforcement program authorized by the Atomic Energy Act of 1954, as amended, according to the regulations in 10 C.F.R. Part 820, *Procedural Rules for DOE Nuclear Activities*; Part 824, *Procedural Rules for the Assessment of Civil Penalties for Classified Information Security Violations*; Part 851, *Worker Safety and Health Program*; and Part 1017, *Identification and Protection of Unclassified Controlled Nuclear Information*. The enforcement program is predicated on the principle that DOE's contractors are in the best position to identify, report, and correct noncompliant conditions, and those that do so will not be subject to enforcement unless the consequences or potential consequences of the noncompliances to nuclear safety, worker safety, or national security are significant. Thus, the decision to conduct an enforcement investigation is based on an evaluation of the safety or security significance associated with a potentially noncompliant condition or event. EA-10 sometimes conducts a site fact-finding visit to help decide whether an enforcement investigation is warranted. The general enforcement process is depicted in the following graphic.



The enforcement regulations give the Director of Enforcement latitude and discretion in investigating noncompliances and determining the appropriate outcome for an enforcement proceeding based on the relevant facts and circumstances. For noncompliances deemed safety or security significant, DOE (EA for non-NNSA contractors or the NNSA Administrator for NNSA contractors) can issue a Notice of Violation to impose a civil penalty on most DOE/NNSA contractors that violate applicable regulations. Penalties are determined by statutory limits and the severity level assigned to the violation(s) and may be escalated or mitigated by applying discretionary adjustment factors described in enforcement policies. In some cases, a civil penalty may be waived if the contractor has already been subject to a contract fee reduction for the violations.

If the circumstances of a case do not necessarily warrant issuance of a Notice of Violation, DOE/NNSA may elect to settle a noncompliance matter with a contractor. Consent Orders and Settlement Agreements do not impose a civil penalty but may require the contractor to pay a

monetary remedy and usually require the contractor to complete specified corrective actions. For less safety- or security-significant matters, EA-10 may issue an Enforcement Letter to a DOE or NNSA contractor to draw management's attention to a problem area that does not otherwise warrant enforcement investigation or to provide feedback on the contractor's response to a safety or security issue.

The Secretary of Energy is also authorized to issue a Compliance Order to prevent, rectify, or penalize violations of nuclear safety and worker safety and health requirements and acts or omissions causing or creating a risk of loss, compromise, or unauthorized disclosure of classified information or unclassified controlled nuclear information. A Compliance Order is generally considered in circumstances where an immediate and serious safety or security problem exists, and repeated efforts by DOE or NNSA to ensure completion of appropriate corrective actions by the contractor have failed such that a significant deficiency persists.

EA-10 also conducts regulatory program assistance reviews when requested by a contractor to evaluate the contractor's processes for identifying, screening, reporting, and correcting noncompliances, and sometimes issues advisory notes to DOE field element managers to convey information that could improve contractor performance in an area covered by a safety- or security-related enforceable regulation.

Enforcement Accomplishments

Eighteen enforcement outcomes were issued in FY 2025, consisting of 4 Preliminary Notices of Violation (PNOVs), 2 Consent Orders, 2 Settlement Agreements, and 10 Enforcement Letters. These enforcement activities identified significant concerns with contractor performance in identifying and controlling hazards, adhering to work processes, and prohibiting introduction of controlled articles into security areas. EA-10 initiated seven enforcement investigations, conducted six onsite investigations and two fact-finding visits, completed one regulatory assistance program review, and issued six advisory notes to DOE field element managers expressing concerns about contractor nuclear safety and radiological control programs at multiple DOE sites. The number of enforcement investigations and outcomes continued to rise in FY 2025, driven by an increase in significant safety and security events and conditions. Most notably, this year's caseload presented inherently higher levels of complexity, often stemming from intricate technical or factual issues or involving engagements across multiple contractors and site locations.

The office held its annual Safety and Security Enforcement Workshop virtually this year, providing New Enforcement Coordinator Training and ongoing training for the regulated community that featured program updates and topical presentations. The workshop was accessible to all federal and contractor enforcement coordinators and other interested stakeholders from the Department. The event saw significant participation, with 115 attendees for the New Enforcement Coordinator Training and 155 participants for the one-day enforcement workshop.

EA-10 staff provided a number of other briefings during the year to share information about the enforcement program and case-related activities and lessons learned. These included a briefing at the Annual Classification Officers Meeting concerning security trends associated with classification matters across the DOE enterprise; a presentation on security issues and trends at the Safeguards and Security Executive Leadership Training course and Security Awareness Special Interest Group meetings; and a briefing to EFCOG members addressing worker safety, nuclear safety, and security issues and trends throughout the Department. EA-10 also collaborated with EHSS in publishing a DOE Operating Experience Summary, *Managing Controlled Articles in Security Areas*.

The following table identifies the enforcement outcome documents issued in FY 2025, which are further described in the ensuing paragraphs. The PNOV issued to Mission Support and Test Services (MSTS) became a final order because the contractor did not contest the PNOV. Replies to the PNOVs issued to Mid-America Conversion Services (MCS), Omni Services (Omni), and Engert are under review.

FY 2025 Enforcement Outcomes				
Enforcement Area	Outcome	Contractor	Site/Project	Initiating Event
Nuclear Safety	Enforcement Letter	Central Plateau Cleanup Company	Hanford Site	Failure to Implement and Maintain Hazard Controls
Nuclear Safety	Enforcement Letter	Savannah River Mission Completion	Savannah River Site	Conduct of Operations Weaknesses
Worker Safety and Health	PNOV issued by NNSA	Mission Support and Test Services	Nevada National Security Sites	Two Ground Fall Events
Worker Safety and Health	Enforcement Letter	Consolidated Nuclear Security	Y-12 National Security Complex	Finger Amputation Event
Worker Safety and Health	PNOV	Engert	Oak Ridge National Laboratory	Worker Injury Involving a Telehandler Truss Boom
Worker Safety and Health	Consent Order	UT-Battelle	Oak Ridge National Laboratory	Worker Injury Involving a Telehandler Truss Boom
Worker Safety and Health	Enforcement Letter	The Whiting-Turner Contracting Company	Oak Ridge National Laboratory	Worker Injury Involving a Telehandler Truss Boom
Worker Safety and Health	PNOV	Mid-America Conversion Services	Paducah Site	Worker Overexposure to Toluene
Worker Safety and Health	PNOV	Omni Services	Paducah Site	Worker Overexposure to Toluene
Worker Safety and Health	Enforcement Letter	Construction Safety Consultants	Paducah Site	Worker Overexposure to Toluene
Worker Safety and Health	Enforcement Letter	East Tennessee Mechanical Contractors	Oak Ridge Reservation	Hazardous Tree Removal Fatality

FY 2025 Enforcement Outcomes				
Enforcement Area	Outcome	Contractor	Site/Project	Initiating Event
Worker Safety and Health	Enforcement Letter	The Davey Tree Expert Company/Cortese Tree Specialists	Oak Ridge Reservation	Hazardous Tree Removal Fatality
Worker Safety and Health	Enforcement Letter	Mission Support and Test Services	Nevada National Security Sites' Special Technologies Laboratory	Small Vessel Explosion Event
Worker Safety and Health	Consent Order	UChicago Argonne	Argonne National Laboratory	Partial Finger Amputation Event
Information Security	Enforcement Letter	Triad National Security	Los Alamos National Laboratory	Prohibited Articles in Security Areas
Information Security	Settlement Agreement	National Technology and Engineering Solutions of Sandia	Sandia National Laboratories	Prohibited Device in a Security Area
Information Security	Enforcement Letter	Lawrence Livermore National Security	Lawrence Livermore National Laboratory	Prohibited Articles in Security Areas
Information Security	Settlement Agreement	Honeywell Federal Manufacturing & Technologies	Kansas City National Security Campus	Unauthorized Disclosure of Classified Information

A. Nuclear Safety Enforcement

1. [Enforcement Letter, Central Plateau Cleanup Company](#)

On September 10, 2025, DOE issued an Enforcement Letter to Central Plateau Cleanup Company, a management and operating (M&O) contractor at DOE's Hanford Site, expressing concerns related to a series of events in which workers were exposed to hazards and risks due to weaknesses in the development, management, and implementation of work activity hazard controls. The events involved workers being splashed by a sodium hydroxide solution; workers involved in an excavation without shoring, a safe means of egress, and the required oversight of a competent person; operation of heavy equipment near an energized overhead power line without ensuring it was de-energized; unplanned radioactive material uptakes; and workers being sprayed by radioactively contaminated liquid. The letter cites numerous examples of conditions that demonstrated (1) an overreliance on assumptions, (2) acceptance of deviation from prescribed work processes, (3) lack of oversight of hazardous work, and (4) weaknesses in corrective action processes intended to identify and correct process problems.

2. [Enforcement Letter, Savannah River Mission Completion](#)

On September 10, 2025, DOE issued an Enforcement Letter to Savannah River Mission Completion, an integrating contractor at the Savannah River Site, expressing concerns related to an event wherein an employee knowingly added chemicals to a collection tank without adhering to procedural requirements for implementing a nuclear safety-related specific administrative control. Further, operational personnel did not initially detect discrepancies in the data and documentation associated with this action using established process controls. The letter cites concerns with (1) weaknesses in the contractor's implementation of conduct of operations program elements designed to mitigate the nuclear safety impacts of operator error, specifically the program's ability to detect and correct operational deviations and inaccuracies; (2) the limited effectiveness of deliberate operations in reducing the likelihood of such errors; (3) gaps in the independent verification process intended to confirm that critical equipment configurations match procedural requirements; and (4) deficiencies in the contractor's program for identifying and correcting procedural lapses, including deliberate operations; supervisory control; and identification, implementation, performance, and documentation of independent verifications.

B. Worker Safety and Health Enforcement

1. [Preliminary Notice of Violation, Mission Support and Test Services](#)

On October 17, 2024, NNSA issued a PNOV to MSTs, an M&O contractor for NNSS, for violations of 10 C.F.R. Part 851 related to two ground fall events wherein unsecured soil and rocks fell onto and injured four construction miners at the Principal Underground Laboratory for Subcritical Experiments.

The PNOV cites two Severity Level I violations for noncompliances in (1) management responsibilities and training and information and (2) hazard identification, assessment, prevention and abatement, and safety and health standards. No civil penalty was imposed, considering that the NNSA Nevada Field Office administered a \$160,000 contract fee reduction on the contractor for worker safety and health performance deficiencies associated with these events.

2. [Enforcement Letter, Consolidated Nuclear Security](#)

On November 4, 2024, DOE issued an Enforcement Letter to Consolidated Nuclear Security, the M&O contractor for Y-12, expressing concerns about an event that resulted in the amputation of a worker's fingertip. The incident occurred as the worker was operating a circular saw with one hand to cut a wooden panel that was not secured to a surface, contrary to the manufacturer's instruction manual. The letter conveys concerns about the contractor's work practices and training on the use of portable circular saws. The letter also notes that the contractor made timely notifications, promptly investigated the event, and prepared a causal analysis and corrective action plan. While the corrective actions appear

to sufficiently address safe operation of circular saws and should prevent recurrence of similar events, the letter recommends that the contractor update its circular saw-related training to emphasize the importance of following manufacturer instructions, particularly with regard to cutting procedures and proper hand positioning.

3. [Preliminary Notice of Violation, Engert](#)

On July 29, 2025, DOE issued a PNOV to Engert, a subcontractor to The Whiting-Turner Contracting Company working at DOE's Oak Ridge National Laboratory (ORNL), for violations of 10 C.F.R. Part 851 associated with a serious worker injury that occurred when an Engert employee was struck and pinned by a 585-pound truss boom attachment (jib) that fell from the forks of a telehandler at ORNL's Translational Research Capability project construction site.

The PNOV cites one Severity Level I violation for noncompliances in the areas of management responsibilities, hazard prevention and abatement, safety and health standards, construction safety, and training and information. The PNOV imposed a mitigated civil penalty of \$59,000, considering the extent of the contractor's corrective actions that, if properly implemented and maintained, should be sufficient to prevent recurrence of the conditions that led to the injury. The contractor's reply to the PNOV is under review.

4. [Consent Order, UT-Battelle](#)

On July 29, 2025, DOE entered into a negotiated Consent Order with UT-Battelle, the M&O contractor for ORNL, to resolve potential noncompliances with 10 C.F.R. Part 851 associated with the worker injury event described in the previous entry (Engert PNOV). The Consent Order transmittal letter indicates that the event revealed deficiencies in UT-Battelle's implementation of worker safety and health program requirements and procedures for construction safety, including activity hazard analysis and recordkeeping and reporting. The Order also conveys that UT-Battelle's investigation into the event was of sufficient scope and depth, and the associated causal analysis and corrective actions appear adequate to address the direct, root, and contributing causes of the event. In deciding to enter into a Consent Order, DOE placed considerable weight on UT-Battelle's post-event response and comprehensive efforts to ensure effective corrective actions were established and fully implemented to prevent recurrence of similar events. The Consent Order required the contractor to remit a monetary remedy of \$39,000 and complete specified corrective actions to fully address the potential noncompliances.

5. [Enforcement Letter, The Whiting-Turner Contracting Company](#)

On July 29, 2025, DOE issued an Enforcement Letter to The Whiting-Turner Contracting Company, a general contractor to UT-Battelle for the Translational Research Capability construction project at ORNL, expressing concerns about the contractor's implementation

of worker safety and health requirements associated with the event described in the two prior entries, and specifically with the adequacy of the contractor's safety oversight and supervision of the construction project. The letter notes that the contractor did not effectively manage the activity hazard analysis (AHA) process and ensure that its subcontractor developed an adequate AHA for the material handling activities to identify job hazards and establish the necessary controls for safe use of the telehandler and jib. The contractor also did not verify that the subcontractor workers were properly and adequately trained and qualified to perform the material handling activity. The letter acknowledges that the contractor promptly notified UT-Battelle and cooperated in the investigation and development of a causal analysis and corrective action plan for the event. It also recognizes the actions taken by the contractor to revise its safety programs in light of the event and strengthen its leadership presence and safety oversight at the job site.

6. [Preliminary Notice of Violation, Mid-America Conversion Services](#)

On July 30, 2025, DOE issued a PNOV to MCS, the M&O contractor for DOE's depleted uranium hexafluoride (DUF6) conversion facility near Paducah, Kentucky, for violations of 10 C.F.R. Part 851 related to a worker overexposure to toluene. Toluene is a flammable liquid and vapor that can cause loss of consciousness, respiratory depression, and death in high concentrations. The event occurred when a worker employed by Omni, a subcontractor to MCS, spilled an open container of adhesive containing approximately 85% toluene inside a permit-required confined space without the required ventilation and respiratory protection. The worker was rescued from the tank after a lower explosive limit monitor alarmed and another worker saw that the individual appeared unsteady and unresponsive.

The PNOV cites two Severity Level I violations for noncompliances in (1) management responsibilities and (2) hazard identification and assessment, hazard prevention and abatement, and permit-required confined space hazards. No civil penalty was imposed, considering that the DOE Portsmouth-Paducah Project Office withheld \$402,570 of earned fee from the contractor for safety and health performance deficiencies, which included the toluene overexposure event. The contractor's reply to the PNOV is under review.

7. [Preliminary Notice of Violation, Omni Services](#)

On July 30, 2025, DOE issued a PNOV to Omni, a subcontractor to MCS at DOE's DUF6 conversion facility, for violations of 10 C.F.R. Part 851 related to the toluene exposure event described in the previous entry.

The PNOV cites one Severity Level I violation for noncompliances in the areas of hazard identification and assessment, hazard prevention and abatement, and permit-required confined space hazards. The PNOV imposes a mitigated civil penalty of \$29,500 considering the contractor's response to the event, including corrective actions, and

enforcement policies and practices regarding the imposition of civil penalties on small businesses. The contractor's reply to the PNOV is under review.

8. [Enforcement Letter, Construction Safety Consultants](#)

On July 30, 2025, DOE issued an Enforcement Letter to Construction Safety Consultants (CSC), a subcontractor to MCS responsible for providing general safety oversight for a hydrofluoric acid storage tank relining project at DOE's DUF6 conversion facility. This work scope included monitoring the work of Omni as addressed in the previous entry.

The letter expresses concerns about the subcontractor's implementation of worker safety and health requirements related to overseeing confined space entries and ensuring the use of proper personal protective equipment during the toluene exposure event described previously. Although CSC had reviewed the material safety data sheet for the adhesive being used, which specified that users wear impervious clothing while working with the product, CSC observed the Omni worker wearing permeable clothing on the day of the event and did not require the individual to wear appropriate protective clothing for skin protection while applying adhesive inside the tank. As a result, the Omni worker experienced skin irritation on multiple areas of the body that required medical attention. Further, CSC did not ensure prompt emergency notification, delaying the Omni worker's access to needed medical care following dermal exposure to the adhesive.

9. [Enforcement Letter, East Tennessee Mechanical Contractors](#)

On July 30, 2025, DOE issued an Enforcement Letter to East Tennessee Mechanical Contractors (ETMC), a contractor at DOE's Oak Ridge Reservation (ORR), expressing concerns related to a subcontractor worker fatality that occurred during hazardous tree removal operations. The incident occurred when a chainsaw operator made several cuts from ground level to a 57-foot-long decayed tree limb, and a portion of the limb broke apart and struck the worker. The letter expresses concerns with how ETMC executed the task order for tree removal in that ETMC did not properly document the flowdown of its Environment, Safety & Health Program/851 Worker Safety & Health Plan (WSHP) to the subcontractor or require the subcontractor to develop a separate DOE-approved WSHP before beginning work. Further, ETMC did not complete or require its subcontractor to complete an activity-level hazard analysis or conduct a pre-job safety briefing with all workers before removing the tree limb, contrary to 10 C.F.R. Part 851 and WSHP requirements.

10. [Enforcement Letter, The Davey Tree Expert Company](#)

On July 30, 2025, DOE issued an Enforcement Letter to The Davey Tree Expert Company (doing business as Cortese Tree Specialists), a subcontractor to ETMC conducting the hazardous tree removal at ORR described in the previous entry. The letter expresses several concerns with the company's work practices at the time of the event that did not

adhere to the latest arboricultural-related safety standards. Specifically, escape paths were not cleared of obstructions and objects that could hinder retreat from falling objects; the applicable operations job plan/briefing did not identify decay as a hazard for an operation in which rigging equipment was applied to a decayed branch, increasing the potential for a branch to break and fall on workers below; and cuts were made to a rigged, decayed limb at ground level using a top-handle chainsaw that, per the manufacturer's instruction manual, is designed especially for tree surgery and cutting tasks in the crowns of living trees and should not be used for any other purposes due to the risk of accidents.

11. [Enforcement Letter, Mission Support and Test Services](#)

On July 31, 2025, DOE issued an Enforcement Letter to MSTs expressing concerns about the unplanned destruction of a containment vessel that occurred during an indoor experiment involving the detonation of an explosive test article inside a clear polycarbonate radiofrequency boom box at the NNSS Special Technologies Laboratory in Santa Barbara, California. The event occurred when two workers initiated the free flow of hydrogen gas into the containment vessel at a rate of up to 10 liters per minute for approximately 2 minutes before the planned detonation. The combined effect of hydrogen gas and explosives exceeded the maximum pressure rating of the containment vessel, leading to its destruction and causing minor damage to other items in the room. The letter expresses concerns that the contractor did not promptly report the event as required by its WSHP and did not develop an adequate job hazard analysis (JHA) as a part of its work planning and control process for the experiment. The JHA did not assess the hazards of flammable hydrogen gas or establish needed controls for its free flow into the boom box, but instead directed workers to discuss the use of flammable gases during experiment preparation.

The letter acknowledges that the contractor promptly paused operations after the event was reported to the facility manager, but because it was not reported in a timely manner, the contractor did not secure the scene, preserve evidence, investigate the event, or conduct a causal analysis until more than 9 months after the event. Following the pause, the contractor strengthened its work planning and control process by establishing senior leadership oversight and incorporating subject matter experts into the review and approval of experimental procedures.

12. [Consent Order, UChicago Argonne](#)

On September 8, 2025, DOE entered into a negotiated Consent Order with UChicago Argonne, the M&O contractor DOE's Argonne National Laboratory, to resolve potential noncompliances with 10 C.F.R. Part 851 associated with a finger crush injury event that occurred when a worker was assisting with manually removing a 241-pound aluminum deck plate by lifting and sliding it across the top of an elevated platform's supports. During one of the evolutions, the employee's left index finger was crushed between an angle iron cross beam and deck plate as it was lowered, resulting in a fingertip amputation requiring surgical intervention. The Office of Enforcement determined that the contractor's causal analysis,

which identified one root cause, eleven contributing factors, and the need for an extent of condition review, appears adequate to address the root and contributing causes of this event. In deciding to enter into a Consent Order, DOE placed considerable weight on the contractor's post-event response, which included a comprehensive extent of condition review and effective corrective actions. The Consent Order required the contractor to remit a monetary remedy of \$72,600 and complete an extensive set of specified corrective actions to prevent recurrence of similar events or conditions.

C. Information Security Enforcement

1. [Enforcement Letter, Triad National Security](#)

On October 3, 2024, DOE issued an Enforcement Letter to Triad National Security, the M&O contractor for LANL, expressing concerns about recurring incidents involving the introduction of unauthorized controlled articles into security areas at the laboratory. The letter indicates that the contractor did not adequately develop and implement procedures to detect and deter the introduction of unauthorized controlled articles into security areas. The contractor's governing document contained inexplicit and incomplete instructions on applicable processes (e.g., review and approval of disablement procedures for microphone, camera, and wireless capabilities), a prior causal analysis of recurring incidents involving the introduction of unauthorized controlled articles into security areas was performed using a simplified apparent causal analysis method that attributed the root cause of the incidents to human error, incidents involving cell phones were subject to a cursory review that did not involve subject matter experts, and no process was established to confiscate an affected electronic device if a phone was found to contain classified information.

2. [Settlement Agreement, National Technology and Engineering Solutions of Sandia](#)

On November 18, 2024, DOE and NNSA entered into a negotiated Settlement Agreement with National Technology and Engineering Solutions of Sandia, the M&O contractor for SNL, to resolve potential noncompliances with 10 C.F.R. Part 824 related to the introduction of an unauthorized Bluetooth-enabled electronic device into a Limited Area at SNL's New Mexico site. The contractor allowed a vendor to introduce and use a Bluetooth-enabled device in a Limited Area where unapproved electronic devices are expressly prohibited and did not properly identify the Bluetooth-enabled device as a controlled article. Because it was not identified as a controlled article, the device was used without following the established approval process for allowing the use of a controlled article within a security area or seeking approval of an exception to the applicable policy in the required manner. Thus, the action also was not identified as a reportable security incident. The Office of Enforcement became aware of the incident via an OIG investigation report that substantiated allegations made by a complainant to the OIG hotline about the activity.

In deciding to enter into a Settlement Agreement, DOE and NNSA considered past enforcement activities and the contractor's substantive efforts to mitigate and correct

deficiencies. The Settlement Agreement required the contractor to remit a monetary remedy of \$170,625, complete the corrective and improvement actions outlined in its request for settlement, and conduct an effectiveness review upon completing the corrective actions.

3. [Enforcement Letter, Lawrence Livermore National Security](#)

On August 6, 2025, DOE issued an Enforcement Letter to Lawrence Livermore National Security, the M&O contractor for Lawrence Livermore National Laboratory, expressing concerns about recurring incidents involving the introduction of unauthorized controlled articles into security areas at the laboratory. The letter conveys that the contractor did not adequately develop and implement procedures to detect and deter the introduction of unauthorized controlled articles into security areas. The contractor's procedure for assessments, issues, and corrective action management lacks sufficient specificity to effectively identify security issues; some causal analyses lack sufficient detail to fully understand and properly address their conclusions; and some corrective actions did not identify specific measures for preventing recurrence of incidents. The letter also identifies concerns with security-related laboratory signage and building maps that often inaccurately identify areas where classified information is used, processed, and discussed, thereby contributing to an increase in incidents involving the introduction of unauthorized controlled articles into security areas.

4. [Settlement Agreement, Honeywell Federal Manufacturing & Technologies](#)

On August 27, 2025, DOE and NNSA entered into a negotiated Settlement Agreement with Honeywell Federal Manufacturing & Technologies, the M&O contractor for NNSA's Kansas City National Security Campus, to resolve potential noncompliances with 10 C.F.R. Part 824 related to three incidents of unauthorized disclosure of classified information to personnel without the proper access authorization or need-to-know. One incident involved the unauthorized network-based transmission of classified information outside the contractor's network firewall. The other two incidents involved the potential for unauthorized access to Sigma information, one by visitors without authorization for Sigma access on a tour of an area housing such information, and the second involving a network application that did not verify that users were authorized for access to Sigma information that could be obtained via the application.

In deciding to enter into a Settlement Agreement, DOE and NNSA considered the contractor's reporting, inquiries, and causal analyses of the incidents as well the extent of the contractor's corrective actions. The Settlement Agreement required the contractor to remit a monetary remedy of \$102,375, complete the corrective and improvement actions outlined in its request for settlement, and conduct an effectiveness review upon completing the corrective actions.

Nuclear Safety and Safeguards and Security Training

EA operates the NTC in Albuquerque, New Mexico, as the Department's Center of Excellence for S&S, protective force, and nuclear safety training and professional development. The NTC designs, develops, and implements state-of-the-art training and education for Departmental leadership and federal and contractor staff nationwide, thereby strengthening the expertise available to meet current and future mission needs of the Department. Training activities are conducted by the NTC through instructor-led, virtual, and e-learning platforms, and at DOE sites via mobile training teams. The NTC certifies sites, courses, instructors, and armorers throughout the Department to facilitate widespread training availability. The NTC also incorporates lessons learned and best practices identified during EA assessments and investigations into its curricula to effect continuous improvement in DOE operations via its training programs. In addition, the NTC, through guidance of the NTC Director and EA TQP Support Office, leads the Department's Federal Technical Capability Panel (FTCP) and implementation of the TQP throughout the Department.

National Training Center Accomplishments

The NTC issued over 82,000 completion certificates representing more than 224,000 student hours of training in FY 2025, thereby enhancing workforce capabilities, increasing compliance awareness, and providing learning opportunities through its extensive Department-wide training programs. The NTC also successfully maintained its International Association for Continuing Education and Training accreditation, which validates the quality and effectiveness of NTC training, continuing education, and professional development programs, and recognizes the organization as a training leader and professional entity.

The NTC's value to the Department remained evident in its capacity to deliver specialized training addressing unique critical skills essential for DOE operations in such areas as nuclear safety basis approval authority, protective forces, and nuclear material control and accountability. The NTC played a pivotal role in strengthening the Department's S&S capabilities by delivering the new Safeguards and Security Executive Leadership Training course. The NTC also developed and delivered a Survey Seminar for federal personnel overseeing the survey process, providing a condensed yet effective training alternative to the more in-depth courses designed for survey practitioners. The NTC collaborated with NNSA to launch an introductory course for the NNSA Nuclear Material Control & Accountability Academy, which was recognized with an NNSA Administrator Award. The NTC also provided site assistance and investigative support to a DOE site following an incident, delivering "just-in-time" training and convening an emergency training manager's working group to reinforce firearms safety rules across all armed protective force members – a contribution recognized by field leadership. Other notable safety and security initiatives spearheaded by the NTC include testing blank fire adaptors (BFAs) to establish a DOE-approved BFA for future use by protective forces and researching and validating concerns regarding accidental discharges of specific pistol systems, leading to a decision to prohibit these weapons from NTC ranges, thereby enhancing the safety of protective force personnel.

In the nuclear safety arena, the NTC delivered revised formality of operations and safety basis courses despite operational constraints and completed a comprehensive curriculum review of the safety basis approval program with input from subject matter experts across DOE, ensuring that the foundational information and content were updated to meet evolving Departmental needs. The NTC also provided critical support to the oversight training program, fulfilling additional duties arising from federal staff changes. A significant contribution involved providing facility representative (FR) support to the Carlsbad Field Office following the loss of key personnel and assisting in successful federal and contractor readiness reviews for the underground ventilation system at the Waste Isolation Pilot Plant, both of which were critical to the facility's recovery from earlier incidents. The NTC partnered with the Office of the Chief Human Capital Officer to support FR recruitment and retention efforts, standardizing position descriptions and improving recruitment processes across the Department. In another key area, the NTC garnered a renewed commitment from the Strategic Capabilities Management Council to continue funding the Contractor Acquisition University program, with acquisition managers citing its indispensability and highlighting NTC's enduring value to the Department.

The NTC continued to provide vital support for the DOE-wide Learning Management System and the eTQP database that contains records for personnel in the Department's TQP, ensuring accurate and accessible training data. The NTC's FTCP Support Office has demonstrably advanced the efficacy of the eTQP through its ownership, management, and improvement of the system. The NTC utilized input from enterprise TQP personnel to refine requirements for the system, leading to the implementation of 175 system enhancements. These improvements have significantly enhanced the system's functionality and reporting capabilities, while also elevating the overall user experience. As a result, the eTQP's utility as a core program management tool has substantially increased, directly contributing to the integrity of qualification data. The impact of these improvements was evident in key FY 2025 operational metrics. A total of 571 technical qualification cards were completed within eTQP and over 7,700 hours of continuing training were recorded for more than 1,100 personnel actively engaged in the TQP. Notably, the NTC's FTCP Support Office earned a unanimous recommendation for TQP accreditation from an independent board in January 2025, underscoring its commitment to excellence. Similarly, EA became the first DOE Headquarters organization to achieve TQP accreditation, establishing a benchmark for technical qualification within Headquarters organizations.

Organizational Management

EA's Office of Resource Management (EA-40) provides organizational management support to EA leadership in the areas of finance and budget, contracts, procurement, human resources, administrative services, internal performance analysis, and strategic and program planning. The highest priorities of the office are prudent management of the resources entrusted to EA by the Administration and Congress and fostering a healthy organization that allows all employees to achieve their greatest potential in support of EA's missions.

Organizational Management Accomplishments

EA-40's most consequential areas of focus in FY 2025 were human resources, contract administration, and budget management, particularly in the context of the Deferred Resignation Program, as the office processed 29 federal employee resignations and retirements from EA. The office continued close collaboration with its federal technical monitors to track expenditures throughout the FY and completed two significant cost analyses for EA leadership that provided insights into cost and other considerations related to EA's assessment activities and scenarios to prepare for possible budget environments in the coming years.

EA-40 continued efforts to replace EA's SharePoint-based workflow and document approval system, which impacts the daily work of the entire organization. EA-40 collaborated with the NTC to employ a test environment to evaluate a new platform's functionality and identify any capability gaps, with an eye toward having a new system fully operational by spring 2026. The office maintained a high operational tempo across a wide range of essential organizational support functions, including document management and control, coordinating external oversight activities, coordinating release of EA assessment and enforcement documents, managing EA's random drug testing program, fulfilling Headquarters Security Officer and Continuity of Operations Program duties, providing safety and security technical support to EA senior leadership, participating in DOE policy and directive reviews and the DOE Directives Review Board, coordinating legislative and interagency document reviews, and overseeing daily management of EA resources in human capital, budgeting, and contracting.

Appendix A: FY 2025 Independent Oversight Reports

This appendix lists the independent oversight assessment reports issued in fiscal year 2025 in chronological order by subject area, including links to reports that are publicly available.

A. Safeguards and Security

1. Independent Focused Assessment of Security, October 30, 2024
2. Independent Focused Assessment of Security, November 20, 2024
3. Independent Focused Assessment of Security, December 10, 2024
4. Independent Focused Assessment of Security, December 17, 2024
5. Y-12 National Security Complex Opposing Force Training Course Report, March 17, 2025
6. Independent Multi-topic Assessment of Safeguards and Security at the Waste Isolation Pilot Plant, March 20, 2025
7. Independent Multi-topic Assessment of Safeguards and Security at the Sandia National Laboratories-California, March 20, 2025
8. Independent Limited-Notice Performance Test Assessment of Security at the Hanford Site, April 3, 2025
9. Independent Focused Assessment of Security, April 4, 2025
10. Independent Assessment and Training of Security Multiple Integrated Laser Engagement Systems at the Nevada National Security Sites, April 17, 2025
11. Independent Multi-topic Assessment of Safeguards and Security at the Paducah Gaseous Diffusion Plant, April 18, 2025
12. Independent Limited-Notice Performance Test Assessment of Safeguards and Security at the Lawrence Livermore National Laboratory, April 30, 2025
13. Independent Limited-Notice Performance Test Assessment of Safeguards and Security at the Los Alamos National Laboratory, May 16, 2025
14. Independent Focused Assessment of Security, June 10, 2025
15. Independent Assessment and Support of Security Engagement Simulation Systems at the Los Alamos National Laboratory, June 11, 2025
16. Independent Limited-Notice Performance Test Assessment of Safeguards and Security at the Y-12 National Security Complex, June 23, 2025
17. Independent Multi-topic Assessment of Safeguards and Security at the Pantex Plant, June 30, 2025
18. Independent Limited-Notice Performance Test Assessment of Safeguards and Security at the Oak Ridge National Laboratory, July 23, 2025

19. Independent Limited-Notice Performance Test Assessment of Safeguards and Security at the Office of Secure Transportation, August 18, 2025
20. Independent Focused Assessment of Security Emergency Response at the Office of Nuclear Energy Idaho National Laboratory, September 5, 2025
21. Independent System-level Assessment of Security, September 23, 2025

B. Environment, Safety and Health

Nuclear Safety and Environmental

1. [Independent Assessment of Independent Assessment of Independent Assessment of the Implementation of Operational Safety Controls at Hanford Site Cleanup Projects, December 2024](#)
2. [Independent Assessment of Safety Culture Methods and Interpretation at the Y-12 National Security Complex, December 2024](#)
3. [Independent Assessment of the Training and Qualification Program at the Los Alamos National Laboratory, January 2025](#)
4. [Independent Assessment of the Fire Protection Program at the Portsmouth Site, March 2025](#)
5. [Independent Assessment of the Training and Qualification Program at the Hanford Site Waste Treatment and Immobilization Plant, March 2025](#)
6. [Independent Assessment of Nuclear Criticality Safety Program and Controls at the Savannah River Site L-Area Facility, April 2025](#)
7. [Independent Assessment of Nuclear Criticality Safety at the Pacific Northwest National Laboratory, May 2025](#)
8. [Independent Assessment of the Fire Protection Program at the Argonne National Laboratory, June 2025](#)
9. [Independent Assessment of Safety Basis Implementation at the Hanford Site Liquid Effluent Retention Facility, July 2025](#)
10. [Independent Assessment of Conduct of Operations at the Y-12 National Security Complex Building 9215, July 2025](#)
11. [Independent Assessment of Fire Protection Program Inspection, Testing, and Maintenance at the Hanford Site Solid Waste Operations Complex, July 2025](#)

Nuclear Engineering and Safety Basis

1. [Independent Assessment of Safety System Management at the Lawrence Livermore National Laboratory Plutonium Facility – Building 332, March 2025](#)
2. [Lessons Learned from the Assessment of Software Quality Assurance Program Implementation at U.S. Department of Energy Nuclear Facilities, March 2025](#)

3. [Independent Assessment of Safety System Management at the Oak Ridge National Laboratory Radiochemical Engineering Development Center – Building 7920, July 2025](#)

Worker Safety and Health

1. [Independent Assessment of the Safety Management Program at Western Area Power Administration, October 2024](#)
2. [Independent Assessment of Work Planning and Control for Liquid Waste Program Subcontractors at the Savannah River Site, December 2024](#)
3. [Independent Assessment of Occupational Injury and Illness Recordkeeping and Reporting at the Y-12 National Security Complex Uranium Processing Facility, March 2025](#)
4. [Independent Assessment of Work Planning and Control for Explosives Operations at the Pantex Plant, March 2025](#)
5. [Lessons Learned from Assessments of Occupational Injury and Illness Recordkeeping and Reporting at U.S. Department of Energy Sites During Calendar Years 2022-2024, June 2025](#)
6. [Independent Assessment of Motor Vehicle Safety at the Los Alamos National Laboratory, August 2025](#)

Emergency Management

1. [Independent Assessment of the Transuranic Waste All-Hazards Planning Basis at the Lawrence Livermore National Laboratory, October 2024](#)
2. [Lessons Learned from Assessments of Emergency Management Programs at U.S. Department of Energy Sites During Fiscal Years 2022-2024, December 2024](#)
3. [Independent Assessment of the 2024 Full-scale Emergency Management Exercise at the Oak Ridge National Laboratory, December 2024](#)
4. [Independent Assessment of the 2024 Full-scale Emergency Management Exercise at the Pantex Plant, March 2025](#)
5. [Independent Assessment of the 2025 Full-scale Emergency Management Exercise at West Hackberry Strategic Petroleum Reserve, July 2025](#)

C. Cybersecurity

1. Independent Technical Assessment of the Office of Environment, Health, Safety and Security External Attack Surface, October 2024
2. Independent Technical Assessment of the National Nuclear Security Administration Secret Network Headquarters Classified Cybersecurity Program, December 2024
3. Independent Programmatic and Technical Assessment of the Argonne National Laboratory Classified and Unclassified Cybersecurity Programs, March 2025

4. Independent Programmatic and Technical Assessment of the Depleted Uranium Hexafluoride Conversion Project Unclassified Cybersecurity Program, March 2025
5. Independent Programmatic and Technical Assessment of the OneID Application, March 2025
6. Independent Technical Assessment of the National Training Center's External Attack Surface, March 2025
7. Independent Assessment of the Kansas City National Security Campus Field Intelligence Element Cybersecurity Program, May 2025
8. Independent Technical Assessment of the Brookhaven National Laboratory's External Attack Surface, May 2025
9. Independent Assessment of the Los Alamos National Laboratory Field Intelligence Element Cybersecurity Program, May 2025
10. Independent Cybersecurity Technical Review of the Southwestern Power Administration, June 2025
11. Independent Programmatic and Technical Cybersecurity Assessment of the Nevada National Security Sites Southern Border Detection System, June 2025
12. Independent Assessment of the IN-40 Cybersecurity Program at the Sandia National Laboratories Field Intelligence Element, June 2025
13. Independent Evaluation of the U.S. Department of Energy's Information Security Program for National Security Systems, June 2025
14. Independent Evaluation of the U.S. Department of Energy Office of Intelligence and Counterintelligence Cybersecurity Program, July 2025
15. Independent Cybersecurity Technical Assessment of a National Nuclear Security Administration Headquarters Network, August 2025
16. Independent Programmatic and Technical Assessment of the National Nuclear Security Administration Information Assurance Response Center Classified Cybersecurity Program, August 2025
17. Independent Assessment of the Office of Intelligence and Counterintelligence Cybersecurity Program at the Oak Ridge National Laboratory Field Intelligence Element, August 2025
18. Independent Programmatic and Technical Cybersecurity Assessment of the Lawrence Berkeley National Laboratory Energy Sciences Network, August 2025

Appendix B: FY 2025 Best Practices and Rollup Report Recommendations

The best practices and recommendations provided below were extracted from U.S. Department of Energy (DOE) Office of Enterprise Assessments (EA) assessment reports issued in fiscal year (FY) 2025. The successful attributes are compiled here so that program office and field element leadership and safety and security experts across the Department can consider employing or adapting them in their operations. Additional detail may be found in individual assessment reports, and DOE personnel are invited to contact EA for further information or to share other best practices and lessons learned.

EA considers a best practice to be a safety or security-related practice, technique, process, or program attribute observed during an EA appraisal that may merit consideration by other DOE and contractor organizations for implementation because it: (1) has been demonstrated to substantially improve the safety or security performance of a DOE operation; (2) represents or contributes to superior performance (beyond compliance); (3) solves a problem or reduces the risk of a condition or practice that affects multiple DOE sites or programs; or (4) provides an innovative approach or method to improve effectiveness or efficiency.

BEST PRACTICES IDENTIFIED IN SAFEGUARDS AND SECURITY ASSESSMENT REPORTS ISSUED IN FY 2025

- At the Pantex Plant:
 - PanTeXas Deterrence (PXD) has a medically necessary personal electronic device screening process that verifies that medical devices do not emanate radio frequency transmissions and that device owners are knowledgeable of security responsibilities and can disable radio frequency transmissions.
 - PXD uses an electronic key management and control system to manage distribution and control of keys that improves accountability of keys and provides an audit trail, along with having other important features.

BEST PRACTICES IDENTIFIED IN ENVIRONMENT, SAFETY AND HEALTH ASSESSMENT REPORTS ISSUED IN FY 2025

Best Practice in Safety System Management

- At Oak Ridge National Laboratory (ORNL), the UT-Battelle Non-reactor Nuclear Facilities Division reliability and predictive maintenance program is advanced, with adequate resources and mature processes. The program applies a variety of state-of-the-art industry practices, including vibration analysis, an ultrasonic bearing regreasing program, infrared analysis, motor testing and circuit analysis, root cause analysis, and failure mode, and effects analysis in support of a preventive maintenance optimization program.

Best Practices in Fire Protection

- At the Portsmouth Site, staff from the Portsmouth/Paducah Project Office's (PPPO) support service contractor, Enterprise Technical Assistance Services, Inc., enters quarterly fire hydrant impairment data into a local geospatial information system to create a more usable map representation for PPPO oversight purposes. The fire hydrant locations are color-coded by status and priority, and PPPO staff analyze this map to assess which physical areas within Portsmouth Site facilities should be prioritized for addressing impairments.
- At Argonne National Laboratory, the Argonne Fire Department has proactively developed and implemented a Standard Operating Guideline (SOG) for identifying the hazards of and practices/tactics for responses to lithium-ion battery incidents associated with small-scale devices, vehicles, and battery storage systems. The SOG is directly responsive to the emergent concerns for emergency response to this increasingly prevalent hazard and is available for use by adjacent mutual aid fire departments

Best Practices in Nuclear Criticality Safety

- At Pacific Northwest National Laboratory (PNNL):
 - Battelle Memorial Institute (BMI) Nuclear Criticality Safety (NCS) personnel host a periodic Fissionable Material Handler (FMH)/NCS forum, which is used for Criticality Safety Engineer-Representatives (CSE-Rs) to confirm that FMHs know their responsibilities regarding criticality safety. The forum includes DOE lessons learned, provides information sharing, and seeks feedback on criticality safety control improvements, offering CSE-Rs time to receive open and honest FMH feedback separate from Fissionable Material Supervisors and Fissionable Material Line Managers.
 - BMI's criticality safety-specific tabletop exercises effectively train operations, NCS staff, and management on how to respond to unexpected conditions/criticality safety upset scenarios that could occur at PNNL facilities.

Best Practice in Training and Qualifications

- At the Hanford Site, Bechtel National, Inc. (BNI)/Waste Treatment Completion Company, LLC, simulator training was conducted with exemplary discipline and formality and included rigorous implementation of conduct of operations principles.

Best Practice in Safety Culture Methods and Interpretation

- At the Y-12 National Security Complex, Consolidated Nuclear Services' corporate reach-back to BNI for guidance provided: access to an established, validated safety culture model; experience and lessons learned in conducting safety culture assessments in construction projects; and Human Performance Improvement error precursor codes to support credible data reporting and analysis.

Best Practices in Worker Safety and Health

- At the Pantex Plant:
 - PXD industrial hygiene hazard assessment and exposure assessment processes are well-defined in MNL-352231, and implementation of these processes, as observed in explosives operations work activities, are exemplary tools for evaluating potential chemical, biological, and physical hazards in the workplace. In addition, both processes are consistent with the guidance provided by the American Industrial Hygiene Association manual, *A Strategy for Assessing and Managing Occupational Exposures*.
 - PXD has established a human factors engineering team, which consists of a psychologist, chiropractor, kinesiologist, and other safety and health professionals as needed, to review ongoing and planned work to identify and eliminate workplace hazards and improve working conditions.
- At the Western Area Power Administration (WAPA):
 - WAPA's comprehensive fall protection training, conducted at the Mead facility, includes hands-on, real-world simulation, inspection of personal harnesses, and self-rescue techniques. Through interactive simulations, workers experience first-hand the challenges associated with fall hazards, practice the skills they have learned, and engage with peers in an environment that fosters a collaborative experience.
 - WAPA dedicates regional craft training weeks annually, allowing workers to receive safety training based on regional training priorities.

Best Practices in Emergency Management

- At Lawrence Livermore National Laboratory (LLNL), Lawrence Livermore National Security has developed an effective method to assist LLNL site and response personnel in estimating distances from an emergency management map. The Site 200 Self Help Map is sized with a distance scale based on 3.375-inch sections (the length of a Homeland Security Presidential Directive/site identification badge) to aid in map use. This novel approach readily allows LLNL personnel to estimate distances using their badge, which all employees are required to possess on their person while they are on site.
- At ORNL, UT-Battelle developed plume modeling casebook forms for each scenario in ORNL Emergency Planning Hazards Assessments (EPHAs) that generate a classifiable Operational Emergency. The casebook forms contain detailed information about each incident as identified in the EPHA, including a brief description, the type of material released, the release location and dynamics (e.g., size of release, stack height, plume velocity), and the airborne source term for consequence assessment team use.
- At PNNL, BMI assembles go-bags for its Building Emergency Directors (BEDs), who are on call 24/7, for carrying essential policies, procedures, checklists, and supplies with them. Supplementing this are an equipment case of emergency response organization (ERO) supplies kept in the BED's office and permanently affixed metal incident response boxes and signs located in the primary staging area. These resources facilitate quickly standing up the

incident response and provide prompt directions and guidance with muster area signage and boxes with vests, checklists, supplies, accountability references, and more. This best practice saves time and enhances the performance of building ERO staff.

- At the West Hackberry Strategic Petroleum Reserve (SPR):
 - Fluor Federal Petroleum Operations (FFPO) and the SPR Project Management Office maintain the West Hackberry SPR incident management handbook providing emergency operations center (EOC) leadership and ERO personnel with a set of readily available information, templated documents, and guidance related to EOC operations and incident administration. Additionally, the handbook provides a standardized reference to facilitate uniform response, access to critical procedures, checklists, contact information should information technology systems be compromised, and a summary of responsibilities for key Incident Command System positions. Moreover, other DOE field elements may consider developing the pocket-sized emergency response reference guide to enhance activation, operations, and demobilization procedures, creating consistency among EOC operational procedures, which significantly contributes to the effectiveness of emergency operations during an incident.
 - FFPO maintains a well-organized decontamination trailer containing equipment needed for field decontamination, including ground cover, portable containment pools, benches, water pumps, and water hoses, allowing for quick and effective deployment. The decontamination trailer was observed to be well organized, with all equipment labeled and stored in designated areas. Further, the emergency response team was well trained in the set-up and operation of the decontamination station. FFPO's decontamination trailer, as well as efficient deployment of the decontamination station, significantly enhances the safety of workers.

RECOMMENDATIONS FROM ENVIRONMENT, SAFETY AND HEALTH-RELATED ROLLUP REPORTS ISSUED IN FY 2025

EA recommendations are suggestions for senior line management's consideration for improving program or management effectiveness. EA recommendations are typically derived from the aggregate consideration of the results of a series of similar appraisals conducted at multiple DOE locations, as are those provided below.

Recommendations from Five Assessments of Software Quality Assurance Program Implementation at U.S. Department of Energy Nuclear Facilities

DOE Field Elements and Program Office Managers

To enhance DOE staff training and oversight of software quality assurance (SQA) activities, consider the following actions:

- Develop strategies to ensure adequate SQA oversight staffing levels, and where necessary incorporate the use of qualified, short-term SQA subject matter expert support from external organizations into the SQA oversight approach.
- Develop mechanisms, such as job-detail opportunities and cross-training across the DOE enterprise, to assist Headquarters and field element staff in obtaining SQA qualifications and experience.
- Develop oversight strategies to ensure the appropriate scope and frequency of SQA assessments, and enhance assessment criteria and review objectives, lines of inquiry, and schedules to ensure that adequate oversight of SQA program implementation is provided for all types and grades of software across a given site.
- Incentivize the successful completion of needed SQA program improvements in performance evaluation and measurement plans.
- Encourage adoption of a single edition of Nuclear Quality Assurance (NQA)-1 at a site to reduce complexity, and allow use of any of the Nuclear-Regulatory-Commission-endorsed NQA-1 editions without having to prove equivalency to NQA-1-2008/NQA-1a-2009.
- Encourage the integration of cybersecurity processes into SQA processes to reduce complexity and errors of omission and to facilitate software owners' ability to fully implement all applicable requirements.

**Recommendations from Five Assessments of Software Quality
Assurance Program Implementation at U.S. Department of Energy Nuclear Facilities**

Site Contractor Managers

To improve the establishment of and compliance with SQA requirements, consider the following actions:

- Develop strategies, such as crosswalks and checklists, to ensure adequate flowdown of quality assurance criteria into quality assurance programs and SQA program implementing procedures and to facilitate DOE review, approval, and oversight.
- Ensure that the established graded approach requires that all software applications, regardless of grading level, comply with all quality assurance criteria, with a graded approach, as set forth in DOE Order 414.1D, *Quality Assurance*, and 10 C.F.R. 830, *Nuclear Safety Management*, subpart A, *Quality Assurance Requirements*.
- Establish a safety software category and grading level within the SQA graded approach to implement controls commensurate with risk for software related to non-nuclear hazards.
- Consider adopting a single edition of NQA-1 at a given site to reduce the complexity of quality assurance processes, including SQA.
- Involve cybersecurity organizations in SQA decision-making by integrating cybersecurity processes with SQA processes to simplify workflow activities for software owners.
- Develop and maintain a comprehensive software inventory that identifies all safety and non-safety software and, at a minimum, documents grading level, status, and facilities where used.
- Establish an SQA program management strategy to ensure corporate program assurance capability as well as thorough and detailed knowledge of how the SQA program has been implemented throughout the organization down to the facility level.
- Develop effective management and independent assessment strategies, such as Criteria and Review Approach Documents, lines of inquiry, and assessment schedules, to ensure adequate implementation of the SQA program for all types and grades of software across the site.
- Perform periodic and routine self-assessments and reviews of SQA program implementation that evaluate all software grading levels.
- Develop effective strategies, programs, and incentives to ensure adequate staffing and training for all roles, as applicable to a given SQA program.

**Recommendations from Four Assessments of Occupational Injury and Illness
Recordkeeping and Reporting at U.S. Department of Energy Sites
During Calendar Years 2022-2024**

DOE Field Element Managers

To support and enhance occupational injury and illness (OII) recordkeeping and reporting program oversight, consider the following recommended actions:

- Encourage staff members who oversee contractor OII recordkeeping and reporting programs to complete Occupational Safety and Health Administration (OSHA) OII recordkeeping training courses and stay current with updated OSHA recordkeeping requirements to enhance their knowledge and technical competency to recognize application of proper recordkeeping practices and identify classification errors.
- Improve oversight of site recordkeeping and reporting of OII cases by including worker interviews and reviewing contractor and subcontractor OSHA 300 logs and Computerized Accident/Incident Reporting System (CAIRS) entries during audits/assessments.

Site Occupational Injury and Illness Managers

To improve OII recordkeeping and reporting, consider the following recommended actions:

- Ensure that cases are appropriately classified and recorded per OSHA requirements as occupational or non-occupational, recordable, or first aid, and that Days Away, Restricted or Transferred and/or Restricted Workday (RWD) counts are accurate by:
 - o Including the OSHA definitions of OII recordability, such as restricted work, in OII procedures. Insert relevant examples of cases from OSHA letters of interpretation to improve the accuracy of case classifications.
 - o Ensuring that third party medical treatment records of employees and subcontractors are provided to site occupational health providers and used to support OII case classification decisions.
 - o Ensuring that injury/illness cases including standard threshold shift cases are entered into the OSHA 300 log within seven days of awareness/diagnosis of the work-related injury classification, even if crossed out later if OSHA non-recordability is determined.
 - o Providing OII recordkeeping and recording training, on a periodic basis, to those with OII recordkeeping and recording responsibilities to ensure effective comprehension and awareness of OII requirements, including OSHA letters of interpretation.
 - o Providing effective basic OII recordkeeping training to line management to ensure they understand their roles and responsibilities regarding reporting and recording requirements, such as work-relatedness, classification criteria, definition and application of restricted work, and days away implications.
 - o Communicating the organization's commitment to accurately identify and trend OII data to reduce workplace injuries and illnesses.
- Improve the effectiveness of OII case classification audits/assessments by requiring interviews with a subset of injured workers to validate the information found in the OII case record or identify and correct classification errors.

**Recommendations from Four Assessments of Occupational Injury and Illness
Recordkeeping and Reporting at U.S. Department of Energy Sites
During Calendar Years 2022-2024**

- Assess the extent to which workers are hesitant to report injuries and illnesses due to concerns of potential consequences, including conducting safety culture surveys/reviews.
- Formally integrate the guidance and approach provided in the Operating Experience policy awareness notice CAIRS Documented Quality Checks, dated April 2022, into the OII records quarterly quality check process. (See appendix E of the subject roll-up report for the recommended content of an auditable OII case file and appendix F for sample forms for documenting CAIRS quarterly quality checks.)
- Provide subcontractors with effective guidance for implementing OSHA OII recordkeeping and reporting requirements.
- Improve the effectiveness of quarterly quality checks of OSHA recording and CAIRS reporting by contractually requiring subcontractors to:
 - o Maintain local/project-specific OSHA 300 logs and 300A summaries
 - o Complete logs with sufficient detail as required by OSHA
 - o Submit OSHA 300 logs and 300A summaries quarterly and annually, respectively.

DOE Office of Environment, Health, Safety and Security

- To improve OII recordkeeping and reporting across the DOE complex, consider the following recommended action:
- Develop and deliver a series of DOE CAIRS or Office of Environment, Health, Safety and Security lessons learned fact sheets, webinars, and/or other outreach training and communication tools that focus on common errors found with OSHA recordkeeping (e.g., work-relatedness determinations, common misclassification areas, RWD definition, relevant letters of interpretation, recording cases within the regulatory timeframe and crossing out later if determined to be not work-related).

**Recommendations from 21 Assessments of Emergency Management Programs
at U.S. Department of Energy Sites During Fiscal Years 2022-2024**

Readiness Assurance

- DOE Field Element managers and management and operating (M&O) contractors should develop and implement a performance-based exercise assessment process that includes a structured tool for comprehensively evaluating the effectiveness of emergency response capabilities based on site-specific hazards and plans by:
- Developing an assessment process that centers on the use of operations-based exercises to test and validate policies, plans, procedures, training, equipment, and interagency agreements
 - Developing realistic and challenging operations-based exercises that simulate execution of an integrated emergency response

Recommendations from 21 Assessments of Emergency Management Programs at U.S. Department of Energy Sites During Fiscal Years 2022-2024

- Requesting an EA independent oversight assessment team to periodically validate the site's performance-based assessment process.

Situational Awareness and Common Operating Picture

DOE Field Element managers and M&O contractors should improve situational awareness and common operating picture weaknesses by strengthening site-specific emergency plans, emergency plan implementing procedures, checklists, and other command media to add and implement requirements for:

- Implementing a structure for information flow that assigns specific responsibility for each key information set, including responsibility for verifying and validating essential incident information collected in an automated information system (i.e., WebEOC® [Web-based Emergency Operations Center Software], EMInS [Emergency Management Information System], and COPS [Common Operating Picture System]) or other response records
- Incorporating guidance on the use of information management tools and resources to flow down requirements into the emergency plan, implementing procedures, and response checklists
- Integrating incident management tools with other web-based geographic information systems (GISs) to provide ERO personnel with mapping displays, data, and analysis tools for the site, the surrounding area, and interiors of many onsite buildings.

DOE Field Element managers and M&O contractors should address concept-of-operations weaknesses by strengthening site-specific emergency plans, emergency plan implementing procedures, checklists, and other command media to add and implement requirements for:

- Using a web-based GIS to provide information and tools to enable better decision making in emergency management through a common operating picture and analysis tools providing recommendations for initial protective actions
- Improving the emergency response concept of operations between DOE sites and offsite emergency response contracted service providers by:
 - Revising site emergency plans to clearly describe and document the concept of operations implemented by the site and offsite agencies using the requirements of DOE Order 151.1D, *Comprehensive Emergency Management System*, applicable to each organization
 - Establishing formal methods of communication and protocols to facilitate the flow of decision-making information among offsite organization emergency operations centers and requiring DOE site participation in decision making following the implementation of initial preplanned protective measures and activities
 - Developing a coordinated plan or protocol that implements an integrated response among offsite response interfaces to a hazardous material incident at a DOE site that results in a General Emergency declaration.

Emergency Response Capabilities

DOE Field Element managers and M&O contractors should ensure that emergency response and offsite emergency response interface capabilities are maintained and validated over a rolling five-year period by:

**Recommendations from 21 Assessments of Emergency Management Programs
at U.S. Department of Energy Sites During Fiscal Years 2022-2024**

- Maintaining a rolling five-year matrix of emergency response capability validations
- Approving any proposed elimination of emergency response capabilities to ensure that key capabilities required for the protection of workers and the public are maintained
- Approving any proposed elimination of facility-level EROs for high-hazard facilities to ensure the facility-level decision maker and teams can effectively protect the health and safety of workers during the delay in site-level first responders' arrival at remote facilities.

Issues Management Process

DOE Field Element managers and M&O contractors should address issues management weaknesses by improving the implementation of causal analyses, effectiveness reviews, and closure processes with more robust procedures that:

- Identify criteria or a threshold for findings requiring a rigorous causal analysis, which should include findings identified during simulated hazardous material releases
- Clarify the level of Federal oversight and M&O contractor management involvement for approving causal analyses, corrective action plans, methods for conducting effectiveness reviews, and finding closure processes
- Increase the use of evaluated drills and exercises to validate the effectiveness of corrective actions and minimize the time between verification and validation activities.

Appendix C: FY 2025 Enforcement Documents

This appendix lists the enforcement case outcome documents issued in fiscal year 2025 in chronological order for each enforcement area and links to those documents.

A. Nuclear Safety Enforcement

1. [Enforcement Letter, Central Plateau Cleanup Company, Hanford Site – Failure to Implement and Maintain Hazard Controls \(September 10, 2025\)](#)
2. [Enforcement Letter, Savannah River Mission Completion, Savannah River Site – Conduct of Operations Weaknesses \(September 10, 2025\)](#)

B. Worker Safety and Health Enforcement

1. [Preliminary Notice of Violation, Mission Support and Test Services, Nevada National Security Sites – Two Ground Fall Events \(October 17, 2024\)](#)
2. [Enforcement Letter, Consolidated Nuclear Security – Fingertip Amputation \(November 4, 2024\)](#)
3. [Preliminary Notice of Violation, Engert, Oak Ridge National Laboratory – Worker Injury Involving a Telehandler Truss Boom \(July 29, 2025\)](#)
4. [Consent Order, UT-Battelle, Oak Ridge National Laboratory – Worker Injury Involving a Telehandler Truss Boom \(July 29, 2025\)](#)
5. [Enforcement Letter, The Whiting-Turner Contracting Company, Oak Ridge National Laboratory – Worker Injury Involving a Telehandler Truss Boom \(July 29, 2025\)](#)
6. [Preliminary Notice of Violation, Mid-America Conversion Services, Paducah Site – Worker Overexposure to Toluene \(July 30, 2025\)](#)
7. [Preliminary Notice of Violation, Omni Services, Paducah Site – Worker Overexposure to Toluene \(July 30, 2025\)](#)
8. [Enforcement Letter, Construction Safety Consultants, Paducah Site – Worker Overexposure to Toluene \(July 30, 2025\)](#)
9. [Enforcement Letter, East Tennessee Mechanical Contractors, Oak Ridge Reservation – Hazardous Tree Removal Fatality \(July 30, 2025\)](#)
10. [Enforcement Letter, The Davey Tree Expert Company/Cortese Tree Specialists, Oak Ridge Reservation – Hazardous Tree Removal Fatality \(July 30, 2025\)](#)
11. [Enforcement Letter, Mission Support and Test Services, Nevada National Security Sites' Special Technologies Laboratory – Small Vessel Explosion Event \(July 31, 2025\)](#)
12. [Consent Order, UChicago Argonne, Argonne National Laboratory – Partial Finger Amputation Event \(September 8, 2025\)](#)

C. Classified Information Security and Unclassified Controlled Nuclear Information Enforcement

1. [Enforcement Letter, Triad National Security, Los Alamos National Laboratory – Prohibited Articles in Security Areas \(October 3, 2024\)](#)
2. [Settlement Agreement, National Technology and Engineering Solutions of Sandia - Prohibited Device in a Security Area \(November 18, 2024\)](#)
3. [Enforcement Letter, Lawrence Livermore National Security - Prohibited Articles in Security Areas \(August 6, 2025\)](#)
4. [Settlement Agreement, Honeywell Federal Manufacturing & Technologies - Unauthorized Disclosure of Classified Information \(August 27, 2025\)](#)