

**U.S. Department of Energy
Office of Enterprise Assessments**

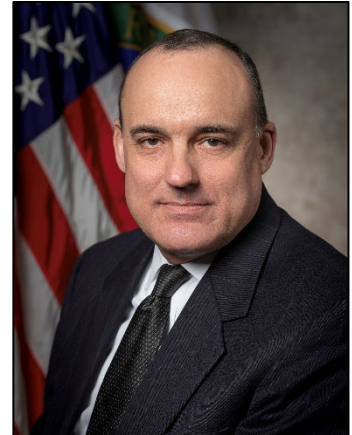


**Fiscal Year
2022**

Year-End Report

January 2023

I am pleased to provide this summary of major activities completed by the Office of Enterprise Assessments (EA) during fiscal year 2022 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 an overview of our independent oversight, enforcement, and training programs; highlights of our assessment reports and other documents issued during the year (including links to individual reports and other documents); and descriptions of our management of the EA organization during fiscal year 2022.

Our organization has established a set of [Mission, Vision and Values](#) statements, developed and refined by working groups composed of Federal staff across EA over the past three years. 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 our 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 fiscal year 2023 and beyond.

John E. Dupuy
Director
Office of Enterprise Assessments

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Acronyms

CAT	Composite Adversary Team
CAU	Contractor Acquisition University
C.F.R.	Code of Federal Regulations
CRAD	Criteria and Review Approach Document
DEIA	Diversity, Equity, Inclusion, and Accessibility
DOE	U.S. Department of Energy
EA	Office of Enterprise Assessments
EA-10	Office of Enforcement
EA-20	Office of Safeguards and Security Assessments
EA-30	Office of Environment, Safety and Health Assessments
EA-60	Office of Cyber Assessments
EM	Office of Environmental Management
FISMA	Federal Information Security Modernization Act
FY	Fiscal Year
IACET	International Accreditors of Continuing Education and Training
IARC	NNSA Information Assurance Response Center
IN	Office of Intelligence and Counterintelligence
MTA	Multi-Topic Assessment
NNSA	National Nuclear Security Administration
NTC	National Training Center
PNOV	Preliminary Notice of Violation
S&S	Safeguards and Security
SAC	Specific Administrative Control
SC	Office of Science
SSC	Structures, Systems, and Components
UCOR	URS CH2M Oak Ridge, LLC

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 relating to safeguards and security (physical, information, and cyber); 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 safety, security, 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 to establish EA's [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 fiscal year, each first-tier office summarizes its key accomplishments and activities relative to the Strategic Goals and Operational Plan deliverables. This report describes EA's accomplishments for fiscal year 2022. In summary, EA:

- Issued 86 independent oversight reports for assessments of 28 DOE locations or entities, consisting of 28 safeguards and security-related reports, 18 cybersecurity-related reports, and 40 nuclear safety, worker safety and health, and emergency management-related reports – substantially more reports than in prior years.
- Issued nine enforcement outcomes consisting of two Preliminary Notices of Violation and seven Enforcement Letters, conducted five enforcement investigations pending an outcome, conducted two fact-finding visits, completed one regulatory program assistance review, and issued one Consent Order closure letter.
- Issued more than 26,000 training certificates representing more than 226,000 hours of student training (a substantial increase over last year) and attained International Accreditors of Continuing Education and Training certification, which will allow DOE Federal and contractor personnel to receive continuing education credits for attending EA National Training Center courses.
- Continued efforts to improve internal analytical capabilities to increase integration of EA's varied activities and better target selection of enforcement, oversight, and training activities to support the Department's missions and help address its challenges.
- Devoted significant attention to streamlining EA program element processes that impact DOE line management organizations, enhancing communications with stakeholders, and improving internal operational efficiency.

U.S. Department of Energy Office of Enterprise Assessments Fiscal Year 2022 Year-End Report

Mission Program Overview

The Office of Enterprise Assessments (EA) implements (1) an internal independent assessment function for the U.S. Department of Energy (DOE) that examines operations relating to safeguards and security (physical, information, and cyber); 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 safety, security 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-EA1-2019
- 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, 470.4, 471.1, 472.2, 473.1, 473.2, 474.2)

Planning and Integration

EA establishes an Operational Plan at the start of each fiscal year (FY) to establish EA's [strategic goals](#) for the upcoming year and identify the 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 provided a summary of its key accomplishments and completed activities relative to its intended Operational Plan deliverables. Those summaries were used as the basis for this report.

During FY 2022, the EA leadership team undertook initiatives across the organization to further mature our planning processes in order to incorporate analysis-informed decisions about the greatest safety and security risks to the Department and strengthen the integration of work across our mission areas. This year, EA piloted a new pre-planning step before developing our annual Strategic Goals and FY 2023 Operational Plan. Each EA mission office (assessments, enforcement, training) was asked to look ahead to FY 2023 and project its schedule of field work throughout the year, including the sites to be visited, assessment or training topics, and anticipated dates and team sizes. This data was then compiled into a snapshot of projected activity at each DOE site. The EA management team gathered for a two-day meeting to discuss the projected work and other matters for the coming year. This pilot was intended to better integrate the activities of our mission offices and incorporate more analytical discussion into the planning cycle.

The new pre-planning meeting complemented EA's continued focus on improving its analytical capabilities in FY 2022 to better target its assessment, enforcement, and training activities to maximize their benefit to the Department. A highlight of EA's continuing development of an integrated analysis program in FY 2022 was a phased series of discussions among EA leadership facilitated by an executive strategy professional. The discussions served to guide EA leadership to a consensus on EA's overall analytical goals, problems, and objectives. EA also worked on various cross-cutting analysis projects, such as a layout of all EA activities for the previous three fiscal years, to provide a better understanding of where EA has invested resources and to guide future planning. We will continue building on and maturing these efforts in FY 2023 and as we prepare for FY 2024.

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 safeguards and security (S&S), worker and public health and safety, emergency management, and cybersecurity. EA considers relative risks and past performance 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. Additionally, these reports are shared with other DOE stakeholder organizations, such as the Offices of Environment, Health, Safety and Security; Inspector General; Chief Information Officer; and Intelligence and Counterintelligence (IN), as applicable, to promote improvements in security and safety performance. EA also posts all oversight 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 2022, all three EA oversight offices—Safeguards and Security Assessments (EA-20), Environment, Safety and Health Assessments (EA-30), and Cyber Assessments (EA-60)—devoted significant attention to evaluating their appraisal processes and identifying actions to improve the quality of their oversight efforts and communication of assessment results. For example:

- EA-20 formed six internal task teams to update fundamental office processes, including improving its approach to assessing performance tests and its ability to track and trend appraisal data, and developed plans to support future appraisal activities, such as a targeted plan for assessing the implementation status of DOE Order 470.3C, *Design Basis Threat*. The office enhanced its appraisal process by using data from EA-30 and DOE's Occurrence Reporting and Processing System; reports from the DOE Office of Inspector General and the U.S. Government Accountability Office; the Office of the Chief Financial Officer's FY 2021 Risk Profile; and interviews with program office and field site leadership to help determine the scopes of its FY 2022 appraisals. EA-20 managers and technical staff continued to analyze assessment results to identify lessons learned and performance trends to support developing various process improvements and data collection tools for planning and conducting assessments and conveying assessment results. The office also continued to refine the framework for its multi-topic assessments (MTAs) to establish standardized baseline tools and reporting templates, and updated its Appraisal Guide to reflect recently instituted measures to improve efficiency and effectiveness.
- The EA-30 leadership team undertook a comprehensive evaluation of its assessment process to identify approaches to improve efficiency and timeliness while also improving the quality of assessment reports by forming a team consisting of a cross section of EA-30 Federal and contractor staff guided by a Six Sigma Black Belt process improvement expert. The team defined process improvement expectations, mapped the current state of the appraisal process, identified inefficiencies, defined causes of problems, performed

structured brainstorming for solutions, identified and ranked potential solutions, mapped future-state appraisal processes, and created an implementation and control plan. This effort resulted in a more thoughtful and efficient assessment process and signified the most significant revision and streamlining of the EA-30 report writing process since the inception of EA. The resulting process improvements have had an extremely positive effect on assessment report timeliness and quality and have resulted in quicker delivery of actionable assessment results, making them more relevant for DOE program and site offices and enabling more timely corrective actions to address identified problems.

- EA-60 initiated a stakeholder engagement program focusing on communication and outreach among EA-60, EA as a whole, and the Department. The objectives and priorities are to enhance communications, build trust, gather relevant data in support of a more informed assessment process, and build relationships throughout DOE. As a result of this initiative, EA-60 established new relationships with organizations that had never been assessed by informing them about the office’s mission and demonstrating the desire to better understand their unique mission, priorities, and concerns to better prepare EA-60 to tailor cybersecurity testing capabilities to upcoming assessments. The office continued to enhance its knowledge management and knowledge development activities, including implementing a system to capture and store institutional knowledge for the office and developing a completely redesigned site portfolio process to capture relevant data at assessed sites to better inform future assessment planning. EA-60 also developed new technical capabilities to assess email security and insider risks for ways to increase security at sites assessed.

These efforts will continue in FY 2023 as we seek to continually improve the efficiency and effectiveness of our oversight programs and communication of results to line management.

In FY 2022, the EA independent oversight offices issued 86 assessment reports for 28 DOE locations or entities—a significant increase in the number of reports compared to the previous three fiscal years. EA-30 also completed 14 field notes documenting site operational awareness activities. In addition to the typical onsite assessments, some oversight activities were conducted remotely and some used a hybrid approach that coupled remotely-conducted activities with a minimal onsite presence due to the pandemic.

The following table identifies the assessment locations for the EA independent oversight reports issued in FY 2022 by assessment area. Reports for individual locations and activities may identify best practices, findings, deficiencies, and opportunities for improvement. Cross-cutting and rollup reports, which provide analyses of results from several locations, usually identify best practices and recommendations. The ensuing paragraphs provide more information about FY 2022 activities in each of the assessment areas.

FY 2022 EA Independent Oversight Assessment Reports by DOE Location/Entity

Under Secretary/Program and Location	Safeguards & Security	Cybersecurity	Nuclear Safety & Environment	Nuclear Engineering & Safety Basis	Worker Safety & Health	Emergency Management
NATIONAL NUCLEAR SECURITY ADMINISTRATION (NNSA)						
Special Access Programs	4					
NNSA Headquarters		3				
Lawrence Livermore National Laboratory	2			1		
Los Alamos National Laboratory		1	1	1		1
Nevada National Security Site	2	1		1		1
Pantex Plant	2		1		1	
Savannah River		1		2		
Sandia National Laboratories					1	
Y-12 National Security Complex	1		2		1	1
SCIENCE and INNOVATION						
Ames Laboratory		1				
Argonne National Laboratory					1	
Brookhaven National Laboratory		1				
Lawrence Berkeley National Laboratory		1				
Idaho National Laboratory	1			1		1
Oak Ridge National Laboratory	1		1	1		1
Pacific Northwest National Laboratory			1			
Strategic Petroleum Reserve	1					
ENVIRONMENTAL MANAGEMENT						
Hanford Site	1		2	3	1	
Paducah Site	1				1	
Portsmouth Site	1		1		1	
Savannah River Site	1			1	1	1
Waste Isolation Pilot Plant	1		1		2	
West Valley Demonstration Project			1			
IN Field Intelligence Elements	8	3				
DOE Headquarters Elements	1	3				
Rollup and Cross-cutting Reports		3				2

A. Safeguards and Security Assessments

EA-20 conducted 28 S&S appraisals of 18 locations in FY 2022 that identified improvements at several assessed locations. The office completed six S&S MTAs, eight limited-notice performance test assessments, two focused assessments of material control and accountability programs, four security-focused assessments of non-collateral programs, and eight security-focused assessments at IN field intelligence elements. Site line management accepted EA-20 assessment results and other data collection processes, and many acknowledged the impartial and objective way EA-20 carries out operations and reports its results. EA-20 documented positive and negative trends related to S&S compliance and performance and developed a supporting report, briefing it to a stakeholder audience of more than 120 personnel from DOE, the Nuclear Regulatory Commission, and the Department of Defense.

During its MTAs, EA-20 reviewed approximately 450 national-level, 4000 DOE (Federal and contractor), and 150 program office-specific S&S requirements; other appraisal activities

involved a subset of those requirements. EA-20 meticulously ensured that its assessment lines of inquiry were accurate and complete to provide stakeholders with meaningful evaluations. EA-20 met its standards for report timeliness and quality in supplying all but one final report to EA management within 60 days of completing the assessment and dispatching all but one limited-notice performance test assessment report within 30 days of completing the onsite evaluation.

EA-20 supported the Department on policy development related to significant revisions of DOE Order 473.1A, *Physical Protection Program*, and DOE Order 473.2A, *Protective Force Operations*, and developed an implementation strategy to support EA in adhering to the new DOE order requirements for protecting controlled unclassified information.

In September 2022, EA-20 conducted training for its Composite Adversary Team (CAT) at the BOAZ Combined Arms Collective Training Facility at the U.S. Army's Fort Hood near Killeen, Texas, and celebrated the 30th anniversary of the CAT program. The CAT is an elite group of specially-trained Security Police Officers and Federal Agents selected from throughout DOE to serve as tactical operators who role-play adversaries during site security performance tests. CAT members are trained and skilled in tactics and techniques necessary to support the assessment of a site's protection and response capabilities by realistically simulating various security missions, such as theft, sabotage, active shooter, and protests.

B. Environment, Safety and Health Assessments

EA-30 conducts assessments of nuclear safety and environmental, nuclear engineering and safety basis, worker safety and health, and emergency management.

Nuclear Safety and Environmental Assessments

This office completed 11 nuclear safety assessments for 9 DOE locations in FY 2022. Assessment activities focused on advancing the effective management of safety systems at high-hazard nuclear facilities and supporting a strong safety culture across DOE.

The office conducted three independent assessments to evaluate strengths and weaknesses in the management processes that DOE sites use to assure the safe operation of high-hazard nuclear facilities consistent with the Department's nuclear safety policy and accompanying orders and regulations. The assessments evaluated the effectiveness of site programs, processes, and activities in ensuring the reliability of safety-class or safety-significant structures, systems, and components (SSCs) and support systems that could impact nuclear safety, with a particular focus on aging infrastructure. Assessments of the selected SSCs were comprehensive and evaluated design and engineering, quality assurance, maintenance and work planning, surveillance and testing, operations, training and qualifications, and issues management. These assessments reflect EA's long-term commitment to conducting thorough diagnostic evaluations of a sample of nuclear facility SSCs to provide feedback and lessons learned to DOE program

offices, site offices, and contractors to promote safe operation of the nuclear facilities critical to DOE mission success.

The office also undertook a series of initiatives to enhance its capabilities and conduct independent assessments to identify information and methods that could assist DOE program offices, field offices, and contractors in enhancing their safety culture. EA-30 closely coordinated with the Office of Environment, Health, Safety and Security to develop Criteria Review and Approach Document (CRAD) 30-08, *Safety Culture Assessment Criteria and Review Approach Document*, which will be used to guide future assessments in this area. The CRAD was used to conduct a safety culture assessment of the Y-12 National Security Complex fire department, providing valuable insights to the contractor and field office. EA-30 also developed a “Plan for the Enterprise-wide Assessment of Safety Culture Survey Methods and Interpretation” and completed the first in a series of eight planned assessments in this area.

Nuclear Engineering and Safety Basis Assessments

This office completed 11 nuclear engineering and safety basis assessments for 7 DOE locations in FY 2022. The assessments focused on (1) ensuring that high-hazard nuclear facility projects are complying with requirements for integrating safety into the design process and are constructed in accordance with engineering requirements and industry standards, (2) evaluating the safety basis for high-risk nuclear facilities, and (3) evaluating the resolution of safety issues.

The office conducted assessments of four high-hazard nuclear facility design/construction projects subject to the independent oversight provisions of the FY 2022 Consolidated Appropriations Act to ensure that the projects are following the nuclear safety requirements of 10 C.F.R. Part 830, *Nuclear Safety Management*. The projects included the Hanford Site Waste Treatment and Immobilization Plant, the Savannah River Plutonium Processing Facility, the Nevada National Security Site U1a Complex Enhanced Capabilities for Subcritical Experiments Project, and the Y-12 National Security Complex Uranium Processing Facility. Assessment activities focused on evaluating development of the safety bases and application of nuclear quality control requirements for design, construction, and modification of these facilities. The office also completed a special summary paper detailing EA’s implementation strategy for this congressional requirement and the relevant projects and topics that have been subject to EA independent oversight over the past 11 years. These activities help ensure that high-hazard nuclear facilities are designed and constructed in a manner that provides reasonable assurance they can be operated safely and in a manner that adequately protects workers, the public, and the environment.

The office continued to evaluate documented safety analyses and technical safety requirements at specific high-risk facilities across the DOE enterprise to determine whether there are potential nuclear safety issues in formulating and implementing specific administrative controls (SACs). Analyses of three nuclear facilities were completed in FY 2022 and onsite targeted assessments were conducted at four other nuclear facilities to evaluate the

adequacy and implementation of SACs. Concerns were identified in both development and implementation of SACs. Resolution of these issues will ensure a robust and reliable control set for long-term facility operations at the assessed sites.

The office completed the last three in a series of eight enterprise-wide targeted assessments on managing safety issues. These targeted assessments evaluated corrective action processes and their implementation at DOE facilities, identifying best practices and systemic weaknesses across DOE. Results from these assessments will be documented in a rollup lessons-learned report in the spring of FY 2023 that conveys best practices, lessons learned, and recommendations to be shared across DOE to improve the resolution of safety issues and promote continuous improvement in other areas throughout Department.

Worker Safety and Health Assessments

This office completed 10 worker safety and health assessments for 9 DOE locations in FY 2022 that focused on evaluating site work planning and control systems and sharing worker safety and health-related lessons learned and best practices. Five of the assessments evaluated strengths and weaknesses in the safety management processes that DOE sites use to safely plan and control work consistent with the Department's integrated safety management policy and accompanying orders and regulations. The assessments evaluated the identification and control of workplace hazards across a broad set of work activities—including construction, operations, research and development, and maintenance—with a focus on the management of electrical hazards, which is a significant and prevalent hazard facing DOE workers. The results of these assessments, along with two assessments conducted in previous years, were analyzed to prepare a lessons-learned report identifying trends, significant issues, and best practices in the Department's worker safety and health programs. The report will be widely distributed across DOE in early FY 2023 to facilitate enhanced safety programs and performance throughout the DOE complex.

Emergency Management Assessments

In FY 2022, this office completed six assessments of site emergency preparedness capabilities or selected emergency management program elements, one lessons-learned rollup report, and a report summarizing the results of a series of follow-up assessments conducted to evaluate the effectiveness of corrective actions for previously identified deficiencies. Activities focused on sharing emergency management lessons learned across the Department, analyzing the effectiveness of DOE organizations in resolving EA emergency management findings, and evaluating the effectiveness of emergency management oversight by DOE Headquarters program offices.

In May 2022, the office published *Lessons Learned from Assessments of Emergency Management Programs at U.S. Department of Energy Sites During Fiscal Year 2021*. This analytical effort evaluated the results of 13 independent emergency management assessments conducted in the prior FY. Those assessments measured the ability of site-level emergency

response organizations to respond to postulated incidents, evaluated processes for identifying and validating emergency response capabilities, and verified that site closure of previous EA-issued findings was performed in a manner designed to prevent recurrence. The report documents lessons learned from EA's performance-based and programmatic appraisals, with attention devoted to trends and significant issues affecting multiple DOE and NNSA sites, and identifies strengths, weaknesses, best practices, and recommendations to promote organizational learning and improve performance throughout DOE. To maximize benefit to the Department, the results of the lessons-learned report were briefed to members of the Department's Emergency Management Special Interest Group at its annual meeting.

In March 2022, the office published *Summary Report: Independent Focused Assessment of Emergency Management Corrective Actions at National Nuclear Security Administration and Office of Environmental Management Sites*. The office conducted independent follow-up assessments to evaluate the resolution of 59 emergency management findings that EA had identified at 8 DOE sites. Analysis of the assessment results determined that only 2 of the 8 sites had resolved all their findings, and that only 29 of the 59 findings were adequately resolved. The summary report identifies strengths, weaknesses, best practices, and opportunities for improvement, with a particular focus on issues affecting both Federal field offices and contractors at multiple sites.

To help address systemic and recurring weaknesses in emergency management performance in the Department, the office assessed the emergency management oversight activities implemented by Headquarters line management organizations. Specifically, this assessment evaluated the effectiveness of the Office of Environmental Management (EM), NNSA, and the Office of Science (SC) in implementing the oversight requirements of DOE Order 151.1D, *Comprehensive Emergency Management System*, and DOE Order 226.1B, *Implementation of Department of Energy Oversight Policy*, as well as the implementation of program-office processes by specific field elements. The assessment also evaluated the effectiveness of certain oversight roles (e.g., readiness assurance) implemented by the NNSA Office of Emergency Operations across DOE as the Office of Primary Interest for emergency management. The assessment identified both strengths and weaknesses in NNSA, EM, and SC in implementing their assigned emergency management oversight responsibilities. The nearly final assessment report presents a detailed analysis of oversight practices to promote recognition of program weaknesses and development and implementation of improved line management approaches where appropriate.

C. Cyber Assessments

EA-60 completed 19 onsite cybersecurity assessment activities in FY 2022 that included 5 assessments of DOE national security systems across 3 DOE program offices and 6 field intelligence element assessments. The office issued 12 assessment reports for individual programs, facilities, or applications; 3 assessment summaries; and 3 Federal Information Security Modernization Act (FISMA)-related rollup reports. EA-60 also completed the requisite

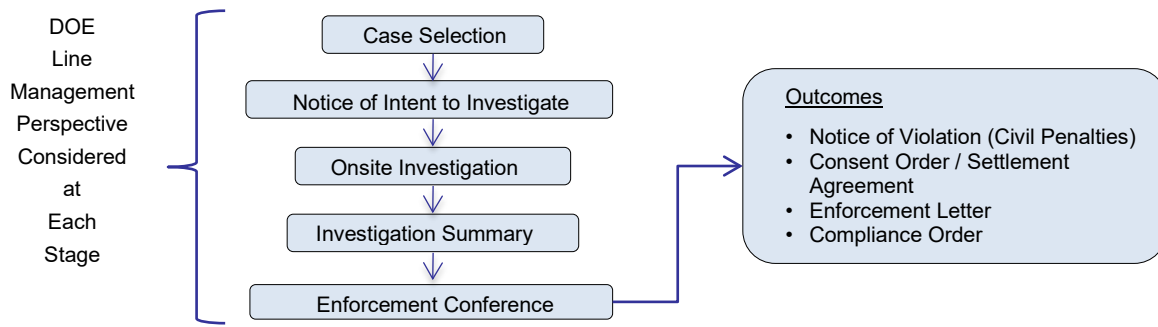
annual FISMA metrics for DOE national security systems for posting to the Department of Homeland Security's CyberScope system.

The office completed a special assistance assessment at the request of the NNSA Office of Information Management to help prepare its Information Assurance Response Center (IARC) for an inspection by the Department of Defense Joint Force Headquarters Defense Information Network to support recertification as a cybersecurity service provider. EA-60's assistance helped IARC to pass the inspection and achieve recertification, allowing it to continue providing Secret-level classified access for DOE and the NNSA. EA-60 also continued its boundary device scanning program, which identified network configuration issues and operational security concerns that could inadvertently identify these security devices to potential adversaries. EA-60 collaborated with the affected program offices and sites to validate the implementation of corrective actions, thereby increasing the overall security for these important devices.

The office continued to develop new technical capabilities, including an email security architecture assessment and enhanced capabilities for insider threat assessments using universal serial bus drives with simulated malicious code, network taps, and other hardware that could enable malicious activity. These methods allowed EA-60 to demonstrate potential weaknesses in configurations (e.g., mass storage devices being allowed when intended to be blocked) and limitations in detection capabilities (e.g., ability to detect executed PowerShell commands) that led to actions to increase security at the assessed sites. These additional capabilities support the office's ongoing efforts to evaluate current and emerging cybersecurity threats facing the Department.

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 following 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*. EA's Office of Enforcement (EA-10) reviews and analyzes information from a variety of sources to identify potential regulatory noncompliances. These include DOE safety and security data management systems; other DOE offices, such as the Office of Inspector General and Office of Hearings and Appeals; internal assessment and performance reports; external organizations such as Congress and the Defense Nuclear Facilities Safety Board; and information communicated directly to EA by contractor employees, DOE workers, or union officials. 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. The enforcement regulations give the Director of Enforcement latitude and discretion in investigating noncompliances, considering mitigating and aggravating factors, and determining the appropriate outcome for an enforcement proceeding based on the relevant facts and circumstances. The general enforcement process is depicted in the following graphic.



DOE (EA for non-NNSA contractors or the NNSA Administrator for NNSA contractors) is authorized to issue a Notice of Violation to impose civil penalties on most DOE/NNSA contractors that violate the aforementioned regulations. Penalties are determined by statutory limits and the severity level assigned to the violation(s) based on safety or security significance and may be escalated or mitigated by applying discretionary adjustment factors described in enforcement policies. For violations of worker safety and health requirements, DOE/NNSA may reduce contract fees or other payments in lieu of a civil penalty. While not explicitly permitted or prohibited by the other regulations, for consistency in the overall enforcement program, DOE/NNSA considers the basis and amount of an associated contract fee action when determining whether a civil penalty should be imposed for nuclear safety and information security violations.

DOE/NNSA may elect to settle a noncompliance matter with a contractor if the facts and circumstances of the case do not otherwise warrant issuance of a Notice of Violation. Consent Orders and Settlement Agreements do not include a civil penalty, but they may require payment of a monetary remedy and may also require that specified corrective actions be completed. Alternatively, EA-10 may issue an Enforcement Letter to a DOE or NNSA contractor to draw management’s attention to a problem area and/or provide feedback on the contractor’s response to a safety or security issue that does not otherwise warrant an enforcement investigation. In some cases, EA-10 may conduct a site fact-finding visit to collect additional information to help determine an appropriate disposition for a potentially noncompliant condition. The office also conducts regulatory program assistance reviews when requested by a contractor to evaluate the contractor’s processes for identifying, screening, reporting, and correcting noncompliances.

Enforcement Accomplishments

A significant enforcement program initiative in FY 2022 was to identify ways to streamline the enforcement process to disposition cases more quickly with no detriment to the quality of communications with the affected DOE line organizations and contractors or the deliberate nature of enforcement proceedings. The EA-10 Director convened a team with his three subordinate office directors to examine the enforcement process and developed a proposal to streamline case disposition that included four possible options, along with a communications

and outreach plan to gather feedback on the proposal from stakeholders. EA-10 conducted two outreach sessions with DOE contractor stakeholders and enforcement coordinators and six sessions with Federal stakeholders and enforcement coordinators to discuss and gather feedback on the proposal. Approximately 150 contractors and 60 Federal employees attended these sessions, which were held virtually. Work on implementing a streamlined process will continue in FY 2023.

The office held its annual Safety and Security Enforcement Workshop virtually in May 2022 to present New Enforcement Coordinator training and enforcement program updates to Federal and contractor enforcement coordinators and other interested Department stakeholders. There were 104 attendees at the New Enforcement Coordinator training and 146 attendees for the program updates. These workshops continue to be very popular within the enforcement community and receive very positive feedback. This year’s workshop received an overall rating of 4.2 out of 5 by the attendees, and the training session garnered a rating of 4.5 out of 5.

EA-10 issued nine enforcement outcomes in FY 2022, consisting of two Preliminary Notices of Violation (PNOVs) and seven Enforcement Letters. The office also issued one Consent Order closure letter and completed two fact-finding visits and one regulatory program assistance review. The office conducted five enforcement investigations in FY 2022 that are pending outcomes and is continuing work on or evaluating the circumstances of five other cases.

The following table identifies the enforcement outcome documents issued in FY 2022, which are further described in the ensuing paragraphs.

Enforcement Area	Outcome	Contractor	Site	Initiating Event
Worker Safety and Health	PNOV issued by NNSA	Honeywell Federal Manufacturing & Technologies	Kansas City National Security Campus	Roll Mill Crush Injury; Machine Guarding and Hazardous Energy Control Programs
Worker Safety and Health	PNOV issued by NNSA	Centerra – Los Alamos	Los Alamos National Laboratory	Live Fire Near Miss Event
Worker Safety and Health	Enforcement Letter	Triad National Security	Los Alamos National Laboratory	Live Fire Near Miss Event
Worker Safety and Health	Enforcement Letter	URS CH2M Oak Ridge	Y-12 National Security Complex	Asbestos Abatement Program Implementation
Worker Safety and Health	Enforcement Letter	GEM Technologies	Y-12 National Security Complex	Asbestos Abatement Program Implementation
Worker Safety and Health	Enforcement Letter	Bechtel National	Y-12 National Security Complex	Electrical Arc Event
Worker Safety and Health	Enforcement Letter	Alliance for Sustainable Energy	National Renewable Energy Laboratory	Workers Injured by Acid Spill
Worker Safety and Health	Enforcement Letter	Battelle Energy Alliance	Idaho National Laboratory	Heat Transfer Fluid Expulsion Event

Enforcement Area	Outcome	Contractor	Site	Initiating Event
Information Security	Enforcement Letter	National Technology and Engineering Solutions of Sandia	Sandia National Laboratories	Improper Protection of Visually Classified Items

A. Worker Safety and Health Enforcement

1. [Preliminary Notice of Violation, Honeywell Federal Manufacturing & Technologies](#)

On May 12, 2022, NNSA issued a PNOV (WEA-2022-01) to Honeywell Federal Manufacturing & Technologies, LLC, the management and operating contractor for the Kansas City National Security Campus, for violations of 10 C.F.R. Part 851 related to a roll mill crush injury to the hand that occurred in March 2020 when a worker was cleaning a moving two-roll mill, and deficiencies in the contractor’s machine guarding and hazardous energy control programs.

The PNOV cites two Severity Level I and one Severity Level II violations in the areas of management responsibilities; hazard identification, assessment, prevention, and abatement; and training and information. A potential civil penalty of \$265,000 was reduced to \$132,500 in recognition of the contractor’s corrective actions. The PNOV became a Final Order because the contractor did not contest the PNOV.

2. [Preliminary Notice of Violation, Centerra – Los Alamos](#)

On June 8, 2022, NNSA issued a PNOV (WEA-2022-02) to Centerra – Los Alamos, a subcontractor providing security services to the prime contractor at the Los Alamos National Laboratory, for violations of 10 C.F.R. Part 851 related to a June 2020 near miss event at a laboratory live fire range that occurred when a worker was moving a utility tractor downrange of a firing line during the firing of live 5.56 mm frangible ammunition.

The PNOV cites two Severity Level I violations in the areas of management responsibilities and firearms safety, and hazard identification, assessment, prevention, abatement, training, and information. A potential civil penalty of \$212,000 was reduced to \$106,000 in recognition of the contractor’s comprehensive corrective actions that should prevent recurrence of such an event. A Final Notice of Violation was issued recently affirming the findings of the PNOV and imposing the penalty.

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

On June 10, 2022, DOE issued an Enforcement Letter (WEL-2022-01) to Triad National Security, LLC (Triad), the management and operating contractor for the Los Alamos National Laboratory, expressing concerns related to the live fire near miss event described in item 2 above.

The letter identifies concerns about Triad's oversight of its subcontractor's implementation of firearms safety requirements in 10 C.F.R. Part 851, as Triad did not adequately oversee subcontractor range operation processes or work controls to protect workers at the site from the recognized hazards associated with live fire operations. The letter also expresses concerns about Triad's causal analysis and corrective actions, which did not identify deficiencies in Triad's oversight of its subcontractor.

4. [Enforcement Letter URS | CH2M Oak Ridge](#)

On July 6, 2022, DOE issued an Enforcement Letter (WEL-2022-03) to URS | CH2M Oak Ridge, LLC (UCOR), a cleanup contractor at DOE's Oak Ridge Reservation, expressing concerns about air sampling methods and data accuracy for Class I asbestos abatement work being performed by its subcontractor in July 2020 at the Y-12 National Security Complex.

The letter notes that UCOR did not implement an effective process to monitor and track sampling media throughout the asbestos abatement project. For example, UCOR did not implement an approved process to equip subcontractor workers with personal sampling pumps; accurately record pump run times; adequately denote asbestos abatement work practices performed in regulated asbestos work areas; or develop a suitable chain-of-custody process for sample retrieval and analysis.

5. [Enforcement Letter, GEM Technologies](#)

On July 6, 2022, DOE issued an Enforcement Letter (WEL-2022-04) to GEM Technologies, Inc. (GEM), a subcontractor to UCOR, expressing concerns about the contractor's implementation of 10 C.F.R. Part 851 requirements during the asbestos abatement work described in item 4 above, and improper asbestos exposure monitoring within asbestos regulated areas.

The letter identifies that GEM did not adequately communicate the contractual requirements of the UCOR Worker Safety and Health Program to its hazardous materials abatement subcontractor, promptly identify that subcontractor abatement supervisors instructed abatement workers to place their personal air sampling pumps in "HOLD" mode during Class I asbestos work, or provide sufficient field oversight of hazardous material abatement activities.

6. [Enforcement Letter, Bechtel National](#)

On July 19, 2022, DOE issued an Enforcement Letter (WEL-2022-02) to Bechtel National, Inc., a subcontractor to the management and operating contractor for construction of the Uranium Processing Facility at the Y-12 National Security Complex, expressing concerns related to a February 2021 electrical arc event that occurred when the insulation on an

energized, 480-volt temporary power line was damaged by a manned, ascending aerial platform.

The letter identifies concerns about the contractor's failure to eliminate or apply engineered controls to the electrical hazard according to the preferred hierarchy of hazard controls required by 10 C.F.R. Part 851. The letter also expresses concerns about the contractor's investigation into and corrective actions for the event, which did not effectively address application of the hierarchy of controls to prevent recurrence of a similar event.

7. [Enforcement Letter, Alliance for Sustainable Energy](#)

On July 19, 2022, DOE issued an Enforcement Letter (WEL-2022-05) to the Alliance for Sustainable Energy, LLC, the management and operating contractor for DOE's National Renewable Energy Laboratory, expressing concerns related to a June 2021 anhydrous acetic acid spill that occurred when workers removed a bubbler cap from a microreactor apparatus, causing the workers to sustain second-degree chemical burns.

The letter identifies concerns about the contractor's implementation of 10 C.F.R. Part 851 requirements in the areas of hazard identification and assessment, hazard communication, fire protection, and training and information. It indicates that the contractor did not conduct an adequate hazard identification and assessment for the microreactor, adequately communicate the chemical hazards of anhydrous acetic acid, adequately implement a process to decontaminate workers exposed to an acid spill, implement an effective accident reporting system, ensure that workers were adequately trained to immediately report injuries to emergency response personnel, implement an appropriate procedure to respond to a Lower Explosive Limit alarm, or appropriately apply the concept of "skill-of-the-craft" to workers engaged in scientific research or laboratory operations.

8. [Enforcement Letter, Battelle Energy Alliance](#)

On August 25, 2022, DOE issued an Enforcement Letter (WEL-2022-06) to Battelle Energy Alliance, LLC, the management and operating contractor for DOE's Idaho National Laboratory, expressing concerns related to an August 2021 heat transfer fluid expulsion event that occurred when a pressurized valve was mistakenly fully opened.

The letter identifies concerns about the contractor's implementation of 10 C.F.R. Part 851 requirements in the areas of hazard identification, assessment, prevention, and abatement. It indicates that the contractor did not appropriately store alumina beads used in the heat transfer system, properly record or communicate changes to the hazards identification and assessment documentation for commissioning activities, adequately address software faults that degraded worker safety, or adequately perform a post-event hazard assessment before reoccupying the commissioning facility.

B. Classified Information Security Enforcement

1. [Enforcement Letter, National Technology and Engineering Solutions of Sandia](#)

On June 6, 2022, DOE issued an Enforcement Letter (SEL-2022-01) to National Technology and Engineering Solutions of Sandia, LLC, the management and operating contractor for the Sandia National Laboratories, expressing concerns about the protection of visually classified items based on multiple incidents that occurred in 2019 and 2020.

EA-10 conducted a fact-finding visit that identified two principal areas of concern: (1) internal procedures and processes for protecting visually classified items within a particular organization that did not provide clear expectations regarding annual cycle counts or ensure that cycle counts were implemented as intended, and (2) performance of targeted security self-assessments to identify work process vulnerabilities associated with visually classified items, which focused on administrative and compliance-based observations and did not address classified matter protection activities at the operational/user level.

Safety and Security Training

EA operates the National Training Center (NTC) in Albuquerque, New Mexico, which is the Department's Center of Excellence for Security and 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 in the areas of health, safety, security, and professional development, thereby strengthening the expertise available to meet the current and future mission needs of the Department. Training and certification activities are conducted at the NTC, through e-learning mechanisms, and at DOE sites via mobile training teams. The NTC certifies courses, instructors, and armorers throughout the Department and supports the Department's Federal Technical Capability Panel and Technical Qualification Program. The NTC also incorporates into its training curricula the lessons learned and best practices identified during EA assessments and investigations in order to foster more effective training programs.

National Training Center Accomplishments

The NTC continued to deliver high quality safety and security training in support of the Department's missions, with more than 26,000 training completion certificates issued in FY 2022 representing more than 226,000 hours of student training—a significant increase over the prior FY. The NTC developed 15 new courses, revised 7 courses, performed maintenance on 52 courses, and completed 62 eLearning and 508 compliance conversions. Notable NTC accomplishments include delivering 14 Contractor Acquisition University (CAU) training courses and initiating development of 10 new CAU courses; supporting delivery of 9 Supply Chain Management Center virtual seminars and developing them into eSeminars; completing development of the Controlled Unclassified Information course to meet the requirements of

the new DOE Order 471.7, *Controlled Unclassified Information*, and making standardized training on controlled unclassified information available across the DOE complex; completing development of the second instructor-led Security Risk Management course to support DOE Design Basis Threat implementation; completing development of the Foreign Ownership Control and Influence Overview course in support of the Office of Environment, Health, Safety and Security; and continued partnership with NNSA in developing and implementing a contractor qualification program for nuclear material control and accountability. The NTC, along with select Headquarters and field staff, won the Department's 2021 Outstanding Security Team award for its efforts on the material control and accountability qualification program.

The NTC also certified 11 new courses under DOE's Training Reciprocity Program and completed 6 site requests for certification of the sites' protective force training programs. Of particular note, the NTC received International Accreditors of Continuing Education and Training (IACET) certification in August 2022. This accreditation will enable all future training courses developed by the NTC to be eligible for continuing education credit. This recognition by IACET will significantly benefit the Department's Federal and contractor employees by allowing them to earn continuing education credits to maintain their professional certifications by attending NTC courses.

Organizational Management

EA's Office of Resources, Communications and Analysis 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

In recent years, the EA Federal team has been transformed as we have welcomed many new technical experts in safety, security, and cybersecurity, as well as experienced managers, across the organization. Most significantly, EA welcomed three new members of the Senior Executive Service in key leadership positions managing EA-10, EA-20, and EA-60. We also welcomed three new Deputy Directors within our mission organizations and several new Directors of subordinate organizations. EA is taking advantage of new workplace flexibility policies, such as remote work and expanded telework, and using our experience from the pandemic to attract a wider pool of qualified candidates to fill job vacancies. The office continued to expand its internal communication and collaboration programs in FY 2022 by conducting more all-hands meetings, making greater use of cross-organizational working groups, presenting numerous learning sessions on a wide range of topics, and increasing the number of in-person management planning meetings.

This year, EA launched a new Diversity, Equity, Inclusion and Accessibility (DEIA) Council composed of representatives from across our organization. We have established a DEIA Council Charter, and the group is already highly active in fostering DEIA dialogue and training for our workforce and developing concrete plans to help the organization improve and benefit from DEIA principles.

The annual Federal Employee Viewpoint Survey provides a roadmap for identifying strengths and weaknesses within our organization, and the results drive a number of improvement initiatives each year. Ninety percent of eligible Federal employees completed the 2021 survey, and the very positive responses to many questions indicate great progress toward our goal of being an organization of choice for employees within DOE. Nevertheless, we are pursuing additional improvements in several areas identified in an approved action plan.

EA has an annual budget of approximately \$85 million to accomplish our missions, and in FY 2022, the Administration's full request for EA was approved by Congress. Managing these resources prudently and with fiscal discipline was one of our highest priorities in FY 2022, as it is every year. A key component of our strategy to fulfill our missions in the most cost-effective manner possible is to use support services contractors to perform certain functions under the direction of our Federal leadership. We maintain two contracts to perform these roles. One provides Headquarters support services, including safety, security, and cybersecurity technical expertise essential to support independent assessments and a wide range of administrative functions. A new contract was put in place during FY 2021. A second contract provides support for training program development and delivery and the wide array of daily operations at the NTC campus in Albuquerque, New Mexico. During FY 2022, EA, supported by the DOE Office of Management and Office of the General Counsel, worked to consider a number of bids to provide these services under a new, ten-year contract valued at over \$200 million. The Department invited several bidders to participate in discussions and revise their bids to strengthen their technical and cost proposals.

During the year, we continued maturing the EA analysis program to further strengthen our ability to identify emerging safety and security trends across the Department and infuse analytical tools and processes into the EA planning cycle and daily operations to support our mission activities.

Appendix A: FY 2022 Independent Oversight Reports

This appendix lists the independent oversight assessment reports issued in FY 2022 in chronological order by subject area, including links to reports that are publicly available.

A. Safeguards and Security

1. Independent Limited-Notice Performance Test Assessment of Safeguards and Security at Nevada National Security Site, November 8, 2021
2. Safeguards and Security Multi-Topic Assessment at the Pantex Plant, November 23, 2021
3. Independent Multi-Topic Assessment of Safeguards and Security at the Lawrence Livermore National Laboratory, December 22, 2021
4. Independent Multi-Topic Assessment of Safeguards and Security at the Waste Isolation Pilot Plant, December 22, 2021
5. Independent Focused Assessment of the Material Control and Accountability Program at the Portsmouth Gaseous Diffusion Plant, January 21, 2022
6. Independent Focused Assessment of Safeguards and Security at a Special Access Program, January 26, 2022
7. Independent Focused Assessment of Safeguards and Security at the Oak Ridge National Laboratory Field Intelligence Element, January 31, 2022
8. Independent Focused Assessment of Safeguards and Security at the Sandia National Laboratories – California Field Intelligence Element, January 31, 2022
9. Independent Limited-Notice Performance Test Assessment of Safeguards and Security at the Idaho National Laboratory, February 28, 2022
10. Independent Limited-Notice Performance Test Assessment of Safeguards and Security at the Pantex Plant, March 18, 2022
11. Independent Focused Assessment of Security at a Special Access Program, April 18, 2022
12. Independent Focused Assessment of Security at a Special Access Program, April 27, 2022
13. Independent Focused Assessment of Security at a Special Access Program, April 27, 2022
14. Independent Multi-Topic Assessment of Safeguards and Security at the Hanford Site, May 2, 2022
15. Independent Limited-Notice Performance Test Assessment of Safeguards and Security at the Oak Ridge National Laboratory, May 2, 2022
16. Independent Focused Assessment of Security at the Pacific Northwest National Laboratories Field Intelligence Element located in Seattle and Richland, Washington, May 16, 2022
17. Independent Limited-Notice Performance Test Assessment of Safeguards and Security at the Y-12 National Security Complex, May 23, 2022
18. Independent Focused Assessment of Security at the Nevada National Security Site Field Intelligence Element, May 24, 2022
19. Independent Focused Assessment of Security at the Nevada National Security Site, Counterintelligence and Remote Sensing Laboratory – Nellis Field Intelligence Element, May 24, 2022
20. Independent Focused Assessment of Security at the Kansas City National Security Campus Field Intelligence Element, May 24, 2022
21. Independent Multi-Topic Assessment of Safeguards and Security at the Nevada National Security Site, June 8, 2022

22. Independent Limited-Notice Performance Test Assessment of Safeguards and Security at the Savannah River Site, June 13, 2022
23. Independent Focused Assessment of the Material Control and Accountability Program at the Paducah Gaseous Diffusion Plant, June 16, 2022
24. Independent Focused Assessment of Security at the Lawrence Livermore National Laboratory Field Intelligence Element, July 6, 2022
25. Independent Multi-Topic Assessment of Security at the Strategic Petroleum Reserve, July 25, 2022
26. Independent Limited-Notice Performance Test Assessment of Safeguards and Security at the Lawrence Livermore National Laboratory, July 27, 2022
27. Independent Focused Assessment of Security at the Sandia National Laboratories – Minnesota Field Intelligence Element, August 30, 2022
28. Independent Limited-Notice Performance Test Assessment of Safeguards and Security at the U.S. Department of Energy Headquarters, September 14, 2022

B. Environment, Safety and Health

Nuclear Safety and Environment

1. [Independent Assessment of the Nuclear Criticality Safety Program at the Portsmouth Site, November 2021](#)
2. [Independent Assessment of Environmental Radiation Protection for Planned Open-Air Demolition at the West Valley Demonstration Project, December 2021](#)
3. [Independent Assessment of Fire Protection Program Implementation at the Pantex Plant, April 2022](#)
4. [Independent Assessment of Direct-Feed Low-Activity Waste Commissioning Test Procedures at Hanford Site Waste Treatment and Immobilization Plant, May 2022](#)
5. [Independent Assessment of Safety System Management for Liquid and Gaseous Waste Operations at Oak Ridge National Laboratory, May 2022](#)
6. [Independent Assessment of Training and Qualification Programs at the Waste Isolation Pilot Plant, June 2022](#)
7. [Independent Assessment of the Fire Protection Program at the Pacific Northwest National Laboratory Radiochemical Processing Laboratory, July 2022](#)
8. [Independent Assessment of TA-55 Fire Water Pump Safety System Management at the Los Alamos National Laboratory, July 2022](#)
9. [Independent Assessment of Fire Department Safety Culture at the Y-12 National Security Complex, July 2022](#)
10. [Independent Assessment of Safety Management Program Development at the Hanford Site Low-Activity Waste Facility, August 2022](#)
11. [Independent Assessment of Construction Quality at the Y-12 National Security Complex Uranium Processing Facility, August 2022](#)

Nuclear Engineering and Safety Basis

1. [Disposition of Excess Real Property Assessment at the Los Alamos National Laboratory Middle DP Road Site, November 2021](#)
2. [Conceptual Safety Design Report Assessment for the Savannah River Plutonium Processing Facility, December 2021](#)

3. [Independent Assessment of Specific Administrative Controls at the Hanford Site Tank Farms and 242-A Evaporator Facility, December 2021](#)
4. [Independent Assessment of the Washington River Protection Solutions, LLC Management of Safety Issues at the Hanford Site, December 2021](#)
5. [Independent Assessment of Specific Administrative Controls at the Lawrence Livermore National Laboratory Plutonium Facility-Building 332, March 2022](#)
6. [Independent Assessment of the Battelle Energy Alliance, LLC Management of Safety Issues at the Idaho National Laboratory Materials and Fuel Complex, May 2022](#)
7. [Independent Assessment of Specific Administrative Controls at the Savannah River Site Defense Waste Processing Facility, May 2022](#)
8. [Independent Assessment of Specific Administrative Controls at the Hanford Site Solid Waste Operations Complex, August 2022](#)
9. [Independent Assessment of the Preliminary Documented Safety Analysis for the Nevada National Security Site U1a Enhanced Capabilities for Subcritical Experiments Project, September 2022](#)
10. [Independent Assessment of the UT-Battelle, LLC Management of Safety Issues at the Oak Ridge National Laboratory, September 2022](#)
11. [Independent Assessment of Conduct of Operations at the Savannah River Site Tritium Facilities, September 2022](#)

Worker Safety and Health

1. [Independent Assessment of Work Planning and Control at the Savannah River Site F and H Tank Farms, October 2021](#)
2. [Independent Assessment of Work Planning and Control at the Paducah Gaseous Diffusion Plant, November 2021](#)
3. [Independent Assessment of Construction Safety at the Waste Isolation Pilot Plant for the Safety Significant Confinement Ventilation System Project, December 2021](#)
4. [Independent Assessment of Construction Safety at the Y-12 National Security Complex Uranium Processing Facility, February 2022](#)
5. [Independent Assessment of Work Planning and Control for Deactivation and Demolition Work at the Portsmouth Site, March 2022](#)
6. [Independent Assessment of Work Planning and Control at Sandia National Laboratories – New Mexico, May 2022](#)
7. [Independent Assessment of Construction Safety for the Utility Shaft Project at the Waste Isolation Pilot Plant, June 2022](#)
8. [Independent Assessment of Work Planning and Control at Argonne National Laboratory, August 2022](#)
9. [Independent Assessment of Occupational Injury and Illness Recordkeeping by the Central Plateau Cleanup Company, LLC at the Hanford Site, August 2022](#)
10. [Independent Assessment of Occupational Injury and Illness Recordkeeping and Reporting by the Consolidated Nuclear Security, LLC at the Pantex Plant, September 2022](#)

Emergency Management

1. [Independent Assessment of Emergency Preparedness Capabilities at the Los Alamos National Laboratory, December 2021](#)

2. [Summary Report: Focused Independent Assessment of Emergency Management Corrective Actions at National Nuclear Security Administration and Office of Environmental Management Sites, March 2022](#)
3. [Independent Assessment of the U-233 Processing All-Hazards Planning Basis at the Oak Ridge National Laboratory, March 2022](#)
4. [Independent Assessment of Emergency Management at the Y-12 National Security Complex, April 2022](#)
5. [Independent Assessment of Emergency Management at the Idaho National Laboratory, April 2022](#)
6. [Lessons Learned from Assessments of Emergency Management Programs at U.S. Department of Energy Sites During Fiscal Year 2021, May 2022](#)
7. [Independent Assessment of Emergency Preparedness Capabilities at the Savannah River Site, May 2022](#)
8. [Independent Assessment of Emergency Preparedness Capabilities at the Nevada National Security Site, August 2022](#)

C. Cybersecurity

1. Independent Programmatic Assessment of the SOC, LLC Unclassified Cybersecurity Program at the Nevada National Security Site, October 2021
2. Independent Programmatic and Technical Assessment of the Unclassified National Nuclear Security Administration Applications: e810 and PAMS2, December 2021
3. Independent Programmatic and Technical Assessment of the National Nuclear Security Administration Headquarters West Classified and Unclassified Cybersecurity Program, December 2021
4. Independent Programmatic and Technical Assessment of the Unclassified Cybersecurity Program at the Ames Laboratory, January 2022
5. Independent Programmatic and Technical Assessment of the Classified and Unclassified Cybersecurity Program for the National Nuclear Security Administration at the Savannah River Site and the Savannah River National Laboratory, February 2022
6. Independent Programmatic and Technical Assessment of the Unclassified Cybersecurity Program at Lawrence Berkeley National Laboratory, February 2022
7. Independent Assessment of the Cybersecurity Program at the DOE Office of Intelligence and Counterintelligence Headquarters in Washington, D.C., May 2022
8. Independent Programmatic and Technical Assessment of the Office of Environment, Health, Safety and Security Unclassified Cybersecurity Program, June 2022
9. Independent Programmatic and Technical Assessment of the Advanced Research Projects Agency-Energy Unclassified Cybersecurity Program, June 2022
10. Independent Programmatic and Technical Assessment of the Classified Cybersecurity Program at the Los Alamos National Laboratory, July 2022
11. Independent Evaluation of the U.S. Department of Energy Office of Intelligence and Counterintelligence Information Systems Security Program, June 2022 (Rollup Report for FY 2021)
12. Independent Evaluation of the U.S. Department of Energy's Information Security Program for National Security Systems, August 2022 (Rollup Report)
13. Independent Programmatic Assessment of the Classified Cybersecurity Program and Technical Assessment of the Unclassified Network at the Brookhaven National Laboratory, August 2022

14. Independent Assessment of the Cybersecurity Program at the Los Alamos National Laboratory Field Intelligence Element, August 2022
15. Independent Cybersecurity Assessment of the IN Headquarters Field Intelligence Element Information System Assets at the Denver Federal Center, Lakewood, Colorado, August 2022 (Assessment Summary)
16. Independent Cybersecurity Assessment of the Information Assurance Response Center Secret/National Security Information Network, August 2022 (Assessment Summary)
17. Independent Evaluation of the U.S. Department of Energy Office of Intelligence and Counterintelligence Information Systems Security Program, August 2022 (Rollup Report for FY 2022)
18. EA Assessment Summary Results for Calendar Year 2021, September 2022 (IN field intelligence elements)

Appendix B: FY 2022 Enforcement Documents

This appendix lists the enforcement case outcome documents issued in FY 2022 in chronological order for each enforcement area and links to those documents.

A. Worker Safety and Health Enforcement

1. [Preliminary Notice of Violation, Honeywell Manufacturing & Technologies](#) – Roll Mill Crush Injury; Machine Guarding and Hazardous Energy Control Programs (May 12, 2022)
2. [Preliminary Notice of Violation, Centerra-Los Alamos](#) – Live Fire Near Miss Event (June 8, 2022)
3. [Enforcement Letter, Triad National Security](#) – Live Fire Near Miss Event (June 10, 2022)
4. [Enforcement Letter, URS | CH2M Oak Ridge](#) - Asbestos Abatement Program Implementation (July 6, 2022)
5. [Enforcement Letter, GEM Technologies](#) – Asbestos Abatement Program Implementation (July 6, 2022)
6. [Enforcement Letter, Alliance for Sustainable Energy](#) – Anhydrous Acetic Acid Spill with Injuries (July 19, 2022)
7. [Enforcement Letter, Bechtel National](#) – Electrical Arc Event (July 19, 2022)
8. [Enforcement Letter, Battelle Energy Alliance](#) – Thermal Fluid Spill (August 25, 2022)

B. Classified Information Security and Unclassified Controlled Nuclear Information Enforcement

1. [Enforcement Letter, National Technology and Engineering Solutions of Sandia](#) – Improper Protection of Visually Classified Items (June 6, 2022)