



U.S. DEPARTMENT OF
ENERGY

Office of Enterprise Assessments Fiscal Year 2015 Independent Oversight Activities Overview

Report to Congress
December 2015

United States Department of Energy
Washington, DC 20585

Message from the Secretary

The establishment of the Office of Enterprise Assessments (EA) on May 4, 2014 reflects the Department of Energy's (DOE's) commitment to the health and safety of DOE and contractor employees and the public, environmental stewardship, and protection of the Department's national security assets. That commitment is an integral and urgent part of our mission. EA provides an internal management assessment function that examines activities relating to the environment, health, safety (nuclear and industrial), security (cyber and physical) and other critical functions of the DOE enterprise.

This report contains an overview of EA independent oversight activities, findings, and recommendations for Fiscal Year (FY) 2015 as requested in House Report 113-486.

This report is being provided to the following Members of Congress:

- **The Honorable Harold D. Rogers**
Chairman, House Committee on Appropriations
- **The Honorable Nita M. Lowey**
Ranking Member, House Committee on Appropriations
- **The Honorable Mike Simpson**
Chairman, Subcommittee on Energy and Water Development
House Committee on Appropriations
- **The Honorable Marcy Kaptur**
Ranking Member, Subcommittee Energy and Water Development
House Committee on Appropriations
- **The Honorable Thad Cochran**
Chairman, Senate Committee on Appropriations
- **The Honorable Barbara Mikulski**
Ranking Member, Senate Committee on Appropriations
- **The Honorable Lamar Alexander**
Chairman, Subcommittee on Energy and Water Development
Senate Committee on Appropriations
- **The Honorable Dianne Feinstein**
Ranking Member, Subcommittee on Energy and Water Development
Senate Committee on Appropriations

If you have any questions or need additional information, please contact me or Mr. Joseph Levin, Associate Director, External Coordination Team, Office of the Chief Financial Officer, (202) 586-3098.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ernest J. Moniz', with a stylized flourish at the end.

Ernest J. Moniz

Executive Summary

The Office of Enterprise Assessments (EA or the Office) is responsible for implementing an Independent Oversight Program for safety and security within the U.S. Department of Energy (DOE) in accordance with DOE Order 227.1, *Independent Oversight Program*. Effective oversight, including independent oversight of DOE Federal and contractor operations, is an integral element of the Department's responsibility as a self-regulating agency in order to provide assurance of its safety and security posture to its leadership, its workers, and the public. The purpose of this report is to provide to the Energy and Water Development Appropriations Committee, as requested in House Report 113-486, an overview of independent oversight activities, findings, and recommendations for Fiscal Year (FY) 2015.

In FY 2015, EA revised the implementing Order referenced above, and developed workforce, training and other internal operating programs in support of meeting the Secretary's expectations for the Office. EA also increased communication with the Department's leadership in an effort to translate oversight assessment results into improved safety and security performance.

EA produced 102 reports documenting safety and security assessments conducted at 28 DOE (including the National Nuclear Security Administration (NNSA)) sites and laboratories. EA did not identify any immediate or major risks that warranted shutdown of operations. Overall, safety and security performance across DOE demonstrated effective performance in many aspects, although a number of areas required continued attention and improvement.

Recommendations and areas for improvement provided by EA to DOE program managers and contractor organizations pertained to: continued senior level management attention to safety and security performance; line management attention to contractor oversight; emphasis on corrective action management; compliance with safety and security requirements; improving emergency management systems; and enhancements to cyber security and insider threat programs.

This report contains a summary of the independent oversight program, a summary of FY 2015 independent oversight activities, a listing of independent oversight reports completed in FY 2015, and overall conclusions and recommendations.



FY 2015 Independent Oversight Activities Overview

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I. Legislative Language

This report responds to a request by the House Committee on Appropriations in House Report 113-486, which accompanied House Resolution 4923, the Energy and Water Development Appropriations Bill, 2015. Page 152 of the Report states:

The Office of Independent Enterprise Assessments is directed to provide to the [House Committee on Appropriations] an annual report that provides an overview of its oversight activities, findings, and recommendations for the fiscal year.

II. Independent Oversight Program

The Office Enterprise Assessments (EA) is responsible for implementing an Independent Oversight Program for safety and security within the U.S. Department of Energy (DOE) in accordance with DOE Orders 227.1, *Independent Oversight Program*, and 226.1B, *Implementation of Department of Energy Oversight Policy*. To carry out this responsibility, EA conducts independent appraisals to identify gaps and vulnerabilities in security, cyber security, safety, and emergency management programs and performance in order to prevent and mitigate the effects of events that could negatively impact workers, the public, the environment, or national security. Independent oversight activities are selected and tailored to the unique needs of each DOE program and site office, and consider relative risks and past performance in determining specific assessment activities. Independent oversight appraisals are designed to complement, not replace, line management's responsibility to monitor and oversee contractor safety and security programs and performance, manage contracts, and conduct self-assessments.

Safeguard and security and cyber security appraisals gauge the effectiveness of safeguards and security, including information security, policies and programs throughout the Department. These activities are undertaken to provide assurance that nuclear weapons and weapons components, special nuclear material (SNM), classified matter, and classified and sensitive information are being protected from theft, sabotage, diversion, loss, or unauthorized disclosure. Follow-up reviews are also performed to ensure that corrective actions are effective and that complex-wide issues and generic weaknesses in safeguards and security and information security are appropriately addressed.

The safeguards and security reviews generally evaluate the following functional areas:

- Protection program management;
- Personnel security;
- Physical security systems;
- Nuclear material control and accountability;
- Classified matter protection and control; and
- Protective forces.

Cyber security reviews evaluate foundational cyber security program elements such as:

- Risk management;
- Configuration management;
- Contingency planning;
- Continuous monitoring;
- Identity and access management;
- Vulnerability management; and
- Technical implementation (through announced and unannounced penetration testing).

Environment, safety and health (ES&H) appraisals evaluate nuclear safety, selected safety programs, integrated safety management (ISM) performance, and emergency response capabilities to determine the status and to provide feedback to line management for needed improvements. These activities are undertaken to ensure adequate protection of the public, workers, and the environment, particularly at DOE sites with nuclear facilities or conducting nuclear or radiological activities. EA assigns Site Leads that monitor specific DOE nuclear activities operations in order to plan and coordinate independent oversight review activities. ES&H appraisal activities are primarily focused on:

- Evaluating the status of nuclear safety at DOE nuclear facilities, including functionality of vital safety systems and other nuclear safety programs and functions;
- Conducting reviews of design and construction of new or significantly modified nuclear facilities as identified by the need for a DOE operational readiness review in accordance with DOE Order 425.1D, *Verification of Readiness to Start Up or Restart Nuclear Facilities*;
- Conducting targeted, multi-site nuclear safety reviews of selected focus areas that are of interest due to known performance deficiencies, high risks, or recent changes in requirements;
- Evaluating emergency management capabilities at DOE sites with nuclear activities and significant quantities of hazardous materials;
- Conducting reviews of safety programs at sites or within organizations where performance may present significant risk (e.g., less than expected safety performance and/or serious or recurring incidents or violations of requirements); and
- Evaluating line management feedback and improvement processes.

The Independent Oversight Program's appraisal processes are described in protocols available on the EA website¹. The protocols provide a disciplined and consistent approach to monitoring, evaluating, and reporting the status of the implementation of safety and security programs within DOE. The process has been developed and refined over time and tested through repeated use during many different types of assessments.

¹ http://www.energy.gov/sites/prod/files/Nov_2012_Appraisal_Process_Protocols-Final.pdf

The Independent Oversight Program consistently strives to improve its internal processes as part of a continuing effort to improve its products and the value it provides to DOE. EA managers are expected to solicit information from team members and line management personnel that can be used for process improvement.

III. Activities and Findings

A. Organizational Activities

In FY 2015, EA submitted a revision to DOE Order 227.1, *Independent Oversight Program*, to reflect the establishment of EA by the Secretary of Energy in May 2014, and the Secretary's expectations for the enterprise-wide internal management assessment function performed by EA.

EA also developed and implemented several internal efforts designed to meet the Secretary's challenge for EA to identify emerging trends and/or systemic weaknesses and provide a more holistic analysis of the Department's safety and security performance. EA developed and implemented strategies and internal documentation such as: functions, responsibilities and authorities documentation; operational plans; staffing and workforce plans; and enhanced employee training. EA also increased communication of assessment findings to DOE management and made tactical changes to enhance EA operations based on feedback to provide senior leaders an increased sense of ownership in the results of the assessments to translate assessment results into improved safety and security performance.

The assessment information contained in the following sections was derived from EA independent oversight appraisal reports finalized in FY 2015. Some referenced assessment reports pertain to activities conducted in the later part of FY 2014 and some appraisal activities conducted in FY 2015 will not be referenced in this annual report as the associated appraisal reports will not be final until FY 2016.

B. Safeguards and Security Assessments

EA completed 15 safeguards and security appraisals at ten DOE locations (seven of ten possess Category I quantities of SNM¹) in FY 2015. The table at the end of this section identifies the specific locations subject to these appraisals.

EA evaluated security performance at DOE sites by focusing on the adequacy of security programs protecting Category I quantities of SNM and other national security assets. This was

¹ Category I SNM means in any combination in a quantity of: 2 kg or more of plutonium; or 5 kg or more of U-235 (contained in uranium enriched to 20 percent or more in the U-235 isotope); or 2 kg or more of U-233; or 5 kg or more in any combination computed by the equation grams = (grams contained U-235) + 2.5 (grams U-233 + grams plutonium). This is often referred to as a formula quantity.

accomplished by performing comprehensive multi-topic inspections (including force-on-force exercises), and limited notice performance testing.

EA assessments indicated that protective forces at DOE sites were generally well-equipped, well-trained, and supported with defense-in-depth physical protection measures, such as security fences, vehicle barriers, and functioning security camera and alarm systems. Although the results of inspections indicated that security programs were adequately protecting Category I SNM, it was determined that management attention and resources will be needed to ensure adequate levels of protection are sustained. Specific findings and recommendations/areas for improvement are contained within the specific appraisal reports.

C. Information Security

EA completed ten information security appraisals at 12 DOE locations/entities in FY 2015. The table at the end of this section identifies the specific locations subject to these appraisals.

The EA assessment of information protection program elements focused primarily on the most sensitive classified matter, such as special access programs, Sensitive Compartmented Information, and Top Secret matter.

EA reviews indicated that sensitive information was being adequately safeguarded, though specific deficiencies were identified, and that personnel administering information protection programs were knowledgeable, well trained, and capable of performing their mission requirements. Sites with the most effective information protection programs demonstrated comprehensive procedures and physical security measures, supported by thorough security education and internal performance testing programs. Specific findings and recommendations/areas for improvement are contained within the specific appraisal reports.

D. Cyber Security

EA completed 26 cyber security appraisals at 22 DOE locations/entities in FY 2015. The table at the end of this section identifies the specific locations subject to these appraisals.

The EA cyber security program focused on providing a prioritized-representative review of the over 200 classified and 300 unclassified networks used throughout the Department. EA operated a cyber security testing network that was used to conduct announced penetration tests of DOE computer networks to evaluate external and internal threats; and unannounced penetration tests, conducted by a red team that assumes the role of an adversary, to identify weaknesses that could expose a network to a cyber-attack.

EA reviews indicated that all sites had implemented many controls (e.g., passwords, access authorization processes) for protecting the confidentiality, integrity, and availability of their classified and unclassified resources, and most of the larger sites had implemented a risk-based program to support ongoing authorization to operate. EA assessments identified issues

requiring attention related to risk management development and implementation. Specific findings and recommendations/areas for improvement are contained within the specific appraisal reports.

E. Nuclear Safety and Environment

EA completed 36 nuclear safety appraisals at 15 DOE locations/entities in FY 2015 (11 appraisals at the Hanford Site, seven at the Waste Isolation Pilot Plant, and two crosscut appraisals involving multiple facilities). The table at the end of this section identifies the specific locations subject to these appraisals.

EA nuclear safety oversight focused on implementation of nuclear safety management programs, engineered safety systems, and DOE and contractor feedback and improvement processes. EA also evaluated nuclear safety aspects, such as safety bases, design of safety systems, and construction quality of DOE's major design and construction projects. EA also expended high levels of effort on evaluating the recovery and corrective action implementation at the Waste Isolation Pilot Plant; and conducted a follow-up assessment of safety culture at the Hanford Site Waste Treatment and Immobilization Plant.

Most aspects of nuclear safety were found effective, including performing in a manner that meets regulatory requirements. Most nuclear safety systems reviewed were well maintained and capable of performing their designed functions. Many aspects of nuclear design related to DOE nuclear construction projects were adequate; and, with few exceptions, construction processes (e.g., concrete pouring and erection of structural steel) were found to be completed in accordance with design specifications.

Although many aspects of nuclear safety were found effective, EA assessments identified some weaknesses at some of DOE's nuclear facilities related to oversight, safety systems design and maintenance, program documentation, work planning and monitoring, and the impact of the Department's management of its infrastructure. Specific findings and recommendations/areas for improvement are contained in reports available on the EA website.

F. Worker Safety and Health

EA completed six worker safety and health appraisals at three DOE locations in FY 2015 (four at the Hanford Site). The table at the end of this section identifies the specific locations subject to these appraisals.

In the area of worker safety, EA assessments focused on radiation protection programs and work planning and control processes that are intended to protect workers from hazards that may be present at DOE facilities, including radioactive materials, beryllium, hazardous chemicals, and various industrial hazards. EA also initiated a cross-cutting review of biological safety.

EA assessments confirmed that many aspects of DOE worker safety programs are mature and effective. Integrated safety management has been the centerpiece of DOE safety management programs for 20 years and has contributed to significant improvements in worker safety at most DOE sites. Despite the positive aspects, EA assessments indicated that many DOE sites have experienced challenges in consistently and effectively implementing their safety processes at the work activity level. To varying degrees, EA identified deficiencies in the implementation of safety controls at some DOE facilities. Specific findings and recommendations/areas for improvement are contained in reports available on the EA website.

G. Emergency Management

EA completed nine emergency management appraisals at eight DOE locations in FY 2015. The table at the end of this section identifies the specific locations subject to these appraisals.

EA's reviews of emergency management programs focused on the preparedness of DOE sites with hazardous materials for severe natural phenomena events that could impact multiple facilities and infrastructure, including focusing on DOE's efforts to prepare for events that are more severe than the facilities were originally designed to withstand, i.e. "beyond design basis" events.

EA assessments indicated that some aspects of emergency management are well established and generally effective at most DOE sites that EA has evaluated. However, the quality of emergency management programs varies considerably across DOE sites, and a number of concerns that are evident at multiple sites could impact the ability to respond effectively to a natural disaster or other emergency condition. Specific findings and recommendations/areas for improvement are contained in reports available on the EA website.

H. Summary of FY 2015 EA Independent Oversight Activities by DOE Location

	Safeguards & Security	Information Security	Cyber Security	Nuclear Safety & Environment	Worker Safety & Health	Emergency Management
NATIONAL NUCLEAR SECURITY ADMIN.						
Headquarters			✓			
Kansas City Plant	✓	✓	✓			
Lawrence Livermore National Lab.		✓	✓	✓		
Los Alamos National Lab.	✓	✓	✓	✓		
Nevada National Security Site	✓					
Office of Secure Transportation		✓	✓			
Pantex Field Office		✓				
Pantex Plant	✓	✓				✓
Sandia National Labs., CA		✓				
Sandia National Labs., MN		✓				
Sandia National Labs., NM		✓	✓	✓	✓	✓
Savannah River Site			✓			
Y-12 National Security Complex	✓	✓	✓		✓	✓
SCIENCE and ENERGY						
Headquarters			✓			
Ames Lab.			✓			
Argonne National Lab.				✓		
Idaho National Lab.			✓	✓		
Oak Ridge National Lab.	✓		✓	✓		
New Brunswick Lab.				✓		
Pacific Northwest National Lab.		✓	✓	✓		
Strategic Petroleum Reserves	✓		✓			
ENVIRONMENTAL MANAGEMENT						
East Tennessee Technology Park						✓
Hanford Site	✓			✓	✓	
Idaho Clean-up Project				✓		
Paducah Gaseous Diffusion Plant	✓			✓		
Portsmouth Gaseous Diffusion Plant			✓			
Savannah River Site	✓		✓	✓		✓
Waste Isolation Pilot Plant				✓		✓
West Valley Demonstration Project			✓	✓		✓
Bonneville Power Administration						
Southeastern Power Administration						
ROLL-UP / CROSSCUT REPORTS						
• Office of Intelligence and Counterintelligence Information Security Systems Reports			✓			
• 2014 Emergency Management Crosscut						✓
• Radiological Controls Activity-Level Implementation Crosscut				✓		
• Fire Protection Programs at DOE Nuclear Facilities Crosscut				✓		

III. Independent Oversight Reports Listing

This section contains a list of independent oversight assessment reports issued in FY 2015 in chronological order by discipline starting in October 2014 through September 2015. The Safeguards and Security, Information Security, and Cyber Security reports identified in this section contain classified and controlled unclassified information and, therefore, are not available to the public. The titles identified in the Nuclear Safety and Environment, Worker Safety and Health, and Emergency Management sections are linked to the actual reports posted on the EA website.

A. Safeguards and Security

1. Office of Enterprise Assessments Review of the Material Control and Accountability Activities at the Paducah Department of Energy Reservation
2. Results of Limited-Notice Performance Tests at the Nevada National Security Site Conducted on August 5-6, 2014
3. Results of Limited-Notice Performance Tests at the Pantex Plant Conducted on August 19-20, 2014
4. Office of Enterprise Assessments Safeguards and Security Follow-up Review at the Savannah River Site
5. Office of Enterprise Assessments Safeguards and Security Inspection at the Y-12 National Security Complex
6. Results of Limited-Notice Performance Tests at the Oak Ridge National Laboratory Conducted November 4-5, 2014
7. Office of Enterprise Assessments Safeguards and Security Performance Testing Follow-up Review at the Savannah River Site
8. Office of Enterprise Assessments Security Inspection at the Strategic Petroleum Reserve
9. Results of Limited-Notice Performance Tests at the Hanford Site Conducted on January 27-28, 2015
10. Results of Limited-Notice Performance Tests at the Los Alamos Laboratory Conducted on March 3-4, 2015
11. Results of Limited-Notice Performance Tests at the Pantex Plant Conducted on March 31-April 1, 2015
12. Results of Limited-Notice Performance Tests at the Nevada National Security Site Conducted May 19-20, 2015
13. Office of Enterprise Assessments Safeguards and Security Review at the Kansas City Plant
14. Results of Limited-Notice Performance Tests at the Savannah River Site Conducted on August 18-19, 2015

15. Office of Enterprise Assessments Security Inspection of Classified Matter Protection and Control at the Y-12 National Security Complex

B. Information Security

1. Office of Enterprise Assessments Security Inspection of the Pantex Plant Field Intelligence Element Sensitive Compartmented Information Facility and Pantex Field Office Sensitive Compartmented Information Facility
2. Office of Enterprise Assessments Security Inspection of the Sandia National Laboratories - Minnesota Sensitive Compartmented Information Facility
3. Office of Enterprise Assessments Security Inspection at the National Security Manufacturing Center Field Intelligence Element Sensitive Compartmented Information Facility
4. Office of Enterprise Assessments Security Inspection at the Lawrence Livermore National Laboratory Field Intelligence Element Sensitive Compartmented Information Facilities
5. Office of Enterprise Assessments Security Inspection of the Pacific Northwest National Laboratory Coastal Security Institute Sensitive Compartmented Information Facility
6. Office of Enterprise Assessments Security Inspection of the National Nuclear Security Administration's Los Alamos National Laboratory Special Access Programs
7. Office of Enterprise Assessment Security Inspection of the Kansas City Plant Special Access Program
8. Office of Enterprise Assessments Security Inspection of the National Nuclear Security Administration's Y-12 National Security Complex Special Access Program
9. Office of Enterprise Assessments Security Inspection of the National Nuclear Security Administration's Sandia National Laboratories California and New Mexico Special Access Programs
10. Office of Security Assessments Security Inspection of the National Nuclear Security Administration's Office of Secure Transportation Special Access Program

C. Cyber Security

1. Independent Assessment of Classified Cyber Security Technical Implementation at the NNSA Enterprise Secure Network
2. Independent Review of the Unclassified and Classified Cyber Security Programs of the DOE's NNSA Emergency Communications Network
3. Independent Review of the Cyber Security Technical Implementation on the One Science Network
4. Independent Evaluation of the DOE's Office of Intelligence and Counterintelligence Information System Security Program

5. Independent Inspection of the Pacific Northwest National Laboratory Field Intelligence Element
6. Independent Inspection of the Classified Cyber Security Program at the Idaho National Laboratory Field Intelligence Element
7. Independent Inspection of the Classified Cyber Security Program at the Savannah River Site Field Intelligence Element
8. Independent Assessment of the Unclassified Cyber Security Program at the Southeastern Power Administration
9. Independent Review of the Classified Cyber Security Program at the NNSA Savannah River Site
10. Independent Cyber Security Assessment of the NNSA National Laboratories' Wireless Networks
11. Independent Review of the Unclassified and Classified Cyber Security Programs at Portsmouth Gaseous Diffusion Plant
12. Independent Review of the Unclassified Cyber Security Program at the West Valley Demonstration Project
13. Independent Review of the Unclassified Cyber Security Programs at the Ames Laboratory
14. Independent Inspection of the Classified Cyber Security Program at Lawrence Livermore National Laboratory
15. Unannounced Independent Cyber Security Assessment at the Oak Ridge National Laboratory
16. Independent Review of the Cyber Security Program at the Office of Secure Transportation
17. Independent Review of the Cyber Security Program at the Kansas City Plant
18. Independent Inspection of the Classified Cyber Security Program at the Oak Ridge National Field Intelligence Element
19. Independent Review of the Unclassified Cyber Security Program at the Y-12 National Security Complex
20. Independent Review of the Cyber Security Program at the Strategic Petroleum Reserve
21. Independent Review of the Cyber Security Program at the Sandia National Laboratories – New Mexico
22. Unannounced Independent Cyber Security Assessment at the Bonneville Power Administration
23. Independent Evaluation of the U.S. Department of Energy's Office of Intelligence and Counterintelligence Information Systems Security Program
24. Independent Review of the Cyber Security Program at the Office of Intelligence and Counterintelligence

25. Independent Review of the Cyber Security Program at the Los Alamos National Laboratory
26. Independent Inspection of the Classified Cyber Security Program at the Los Alamos National Laboratory Field Intelligence Element

D. Nuclear Safety and Environment

1. Office of Enterprise Assessments Review of the Los Alamos National Laboratory Weapons Engineering Tritium Facility Safety Significant Fire Suppression System
2. Office of Enterprise Assessments Review of the Fire Protection Program at the Los Alamos National Laboratory
3. Office of Enterprise Assessments Targeted Review of Radiological Controls Activity-Level Implementation at the Argonne National Laboratory Nuclear Facilities
4. Office of Enterprise Assessments Operational Awareness Record, Observation of the Hanford Site Waste Treatment and Immobilization Plant Low Activity Waste Facility Reagent System Hazards Analysis Activities
5. Office of Enterprise Assessments Operational Awareness Record, Observation of the Hanford Site Waste Treatment and Immobilization Plant High Level Waste Facility Radioactive Liquid Disposal System Hazards Analysis Activities
6. Office of Enterprise Assessments Operational Awareness Record, Operational Awareness Record of the Hanford Site Waste Treatment and Immobilization Plant Low Activity Waste Facility Waste Handling Systems Hazard Analysis Activities
7. Office of Enterprise Assessments Review of the Waste Isolation Pilot Plant Recovery Plan for Operating Diesel Equipment with Available Underground Airflows
8. Office of Enterprise Assessments Review of the Waste Isolation Pilot Plant Conduct of Maintenance Recovery Plan
9. Office of Enterprise Assessments Review of the West Valley Demonstration Project Radiological Controls Activity-Level Implementation
10. Office of Enterprise Assessments Review of Hanford Site Waste Treatment and Immobilization Plant Construction Quality
11. Office of Enterprise Assessments Review of the Hanford Site K-West Annex Facility Construction Quality
12. Office of Enterprise Assessments Targeted Review of the Fire Protection Program at the Idaho Site Advanced Mixed Waste Treatment Project
13. Office of Enterprise Assessments Targeted Review of the Idaho National Laboratory Fire Protection Program as Implemented at the Irradiated Materials Characterization Laboratory at the Idaho Site
14. Office of Enterprise Assessments Lessons Learned from Targeted Reviews of Radiological Controls Activity-Level Implementation

15. Office of Enterprise Assessments Targeted Review of the Safety-Class Room Ventilation Systems and Associated Final Filtration Stages, and Review of Federal Assurance Capability at the Lawrence Livermore National Laboratory Plutonium Facility
16. Office of Enterprise Assessments Review of Field Element Line Management Oversight at Sandia National Laboratories
17. Office of Enterprise Assessments Operational Awareness Record, Observation of the Hanford Site Waste Treatment and Immobilization Plant High Level Waste Facility Concentrate Receipt/Melter Feed/ Glass Formers Reagent Hazards Analysis Activities and Review of the Radioactive Liquid Disposal Hazards Analysis Event Tables
18. Office of Enterprise Assessments Operational Awareness Record, Limited Review of the Waste Isolation Pilot Plant Engineering Configuration Management Processes
19. Office of Enterprise Assessments Operational Awareness Record, Oversight of Argonne National Laboratory and New Brunswick Laboratory
20. Office of Enterprise Assessments Review of the Hanford Site Sludge Treatment Project Engineered Container Retrieval and Transfer System Preliminary Documented Safety Analysis
21. Office of Enterprise Assessments Targeted Review of the Safety-Significant Ventilation Systems at the Irradiated Fuels Examination Laboratory, Building 3525 Operated by UT-Battelle for the Oak Ridge National Laboratory Office of Science
22. Office of Enterprise Assessments Operational Awareness Record, Review of the Hanford Site Waste Treatment and Immobilization Plant Low-Activity Waste Facility "Facility-Wide" Draft Hazard Analysis Report
23. Office of Enterprise Assessments Operational Awareness Record, Review of the Hanford Site Waste Treatment and Immobilization Plant High-Level Waste Facility Concentrate Receipt/Melter Feed/Glass Formers Reagent Hazards Analysis Event Tables
24. Office of Enterprise Assessments Review of the Hanford Site Waste Treatment and Immobilization Plant Construction Quality for March 16-19, 2015
25. Office of Enterprise Assessments Review of the Hanford Site Waste Treatment and Immobilization Plant Construction Quality for Dec. 15-18, 2014
26. Office of Enterprise Assessments Review of the Savannah River Site Salt Waste Processing Facility Construction Quality and Startup Test Plans
27. Office of Enterprise Assessments Operational Awareness Record, Follow-up Review of the Waste Isolation Pilot Plant Engineering Configuration Management Processes
28. Office of Enterprise Assessments Review of the Hanford Site Waste Treatment and Immobilization Plant Hazards Analysis Report for the Low-Activity Waste Facility Reagent Systems
29. Office of Enterprise Assessments Targeted Review of the Safety-Significant Systems at the Pacific Northwest National Laboratory Radiochemical Processing Laboratory

30. Office of Enterprise Assessments Targeted Review of the Safety Significant Ventilation System and Interconnected Portions of the Associated Safety Class Confinement System, and Review of Federal Assurance Capability at the Los Alamos National Laboratory Technical Area 55 Plutonium Facility
31. Office of Enterprise Assessments Lessons Learned from Targeted Reviews of Fire Protection Programs at Department of Energy Nuclear Facilities
32. Office of Enterprise Assessments Review of the Argonne National Laboratory Fire Protection Program
33. Office of Enterprise Assessments Targeted Review of the Fire Protection Program at the Oak Ridge National Laboratory Irradiated Fuels Examination Laboratory, Building 3525
34. Office of Enterprise Assessments Targeted Review of the Paducah Depleted Uranium Hexafluoride Conversion Facility Fire Protection Program
35. Office of Enterprise Assessments Review of the Hanford Site Waste Treatment and Immobilization Plant Low-Activity Waste Facility Hazards Analysis Reports for the Melter and Melter Offgas Systems
36. Office of Enterprise Assessments Operational Awareness Record, Review of the Hanford K-West Annex Facility

E. Worker Safety and Health

1. Office of Enterprise Assessments Targeted Review of Work Planning and Control at the Sandia National Laboratories
2. Office of Enterprise Assessments Targeted Review of Work Place Planning and Control at the Hanford Tank Farms
3. Office of Enterprise Assessments Review of Targeted Review of Work Planning and Control at the Y-12 National Security Complex
4. Office of Enterprise Assessments Targeted Review of Work Planning and Control at the Hanford Central Plateau Environmental Remediation Projects
5. Office of Enterprise Assessments Follow-up Review of the Hanford Site Chronic Beryllium Disease Prevention Program
6. Office of Enterprise Assessments Follow-up Assessment of Safety Culture at the Hanford Site Waste Treatment and Immobilization Plant

F. Emergency Management

1. Office of Enterprise Assessments Review of the West Valley Demonstration Project Emergency Management Program Technical Basis and Emergency Preparedness
2. Office of Enterprise Assessments Review of Savannah River Site 2014 Site-Level Exercise

3. Office of Enterprise Assessments Review of the Y-12 National Security Complex 2014 Site-Level Exercise
4. Office of Enterprise Assessments Operational Awareness Record, Observation of the Waste Isolation Pilot Plant Horizon-14 Exercise
5. Office of Enterprise Assessments Lessons Learned from the 2014 Emergency Management Reviews
6. Office of Enterprise Assessments Review of the Pantex Plant 2014 Full Participation Exercise
7. Office of Enterprise Assessments Review of the Sandia National Laboratories / New Mexico 2014 Site-Level Emergency Management Exercise
8. Office of Enterprise Assessments Review of the East Tennessee Technology Park Emergency Management Program
9. Office of Enterprise Assessments Review of the Y-12 National Security Complex Emergency Management Exercise Program

V. Conclusions and Recommendations

In FY 2015, EA revised the DOE independent oversight order and developed workforce, training, and other internal operating programs in support of meeting the Secretary's expectations for the Office. EA also increased communication with the Department's leadership in an effort to translate oversight assessment results into improved safety and security performance.

EA produced 102 reports documenting safety and security assessments conducted at 28 DOE, including NNSA, sites and laboratories. EA did not identify any immediate or major risks that warranted shutdown of operations. Overall, safety and security performance across DOE demonstrated effective performance in many aspects, although a number of areas required continued attention and improvement.

Recommendations and areas for improvement provided by EA to DOE program managers and contractor organizations pertained to continued senior level management attention to safety and security performance, line management attention to contractor oversight, emphasis on corrective action management, compliance with safety and security requirements, improving emergency management systems, and enhancements to cyber security and insider threat programs.