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NATIONAL NUCLEAR SECURITY ADMINISTRATION

Actions Needed to Clarify Use of Contractor Assurance Systems for Oversight and Performance Evaluation

Accessible Version

GAO-15-216

GAO Highlights

Highlights of GAO-15-216, a report to congressional committees.

May 2015

NATIONAL NUCLEAR SECURITY ADMINISTRATION

Actions Needed to Clarify Use of Contractor Assurance Systems for Oversight and Performance Evaluation

Why GAO Did This Study

NNSA is responsible for overseeing the work of seven M&O contractors that execute its programs across eight nuclear security enterprise sites and evaluating their performance. NNSA directed its M&O contractors in 2011 to implement CAS—systems designed and used by contractors to assure their own performance—that NNSA could also leverage for oversight purposes and thereby improve efficiency. To determine the extent to which to use contractor-generated information made available through CAS, NNSA is to apply a framework for evaluating the risk of contractors' activities, their past performance, and their CAS maturity.

GAO was asked to review NNSA's implementation of its framework for using CAS. This report examines the extent to which NNSA has fully established policies and guidance for using information from CAS to (1) oversee M&O contractors and (2) evaluate M&O contractors' performance; and whether NNSA has determined it has sufficient, qualified personnel to implement its framework for using information from CAS for these two purposes. To conduct its work, GAO surveyed all NNSA field offices and analyzed key policies and guidance on NNSA's use of information from CAS.

What GAO Recommends

GAO is recommending, among other things, that NNSA develop guidance on using information from CAS to oversee and evaluate M&O contractors, reinstitute a process for evaluating oversight effectiveness, and study staffing needs. NNSA agreed with these recommendations.

View GAO-15-216. For more information, contact David C. Trimble at (202) 512-3841 or trimbled@gao.gov.

What GAO Found

The National Nuclear Security Administration (NNSA) has not fully established policies or guidance for using information from contractor assurance systems (CAS) to conduct oversight of management and operating (M&O) contractors. As a result, NNSA does not have standards for ensuring that contractors are overseen consistently. For example, at the headquarters level, NNSA has not provided guidance beyond its general framework for assessing the maturity of contractors' CAS to determine whether information from CAS is sufficiently reliable for federal oversight purposes. In the absence of headquarters level policy, NNSA field offices—federal offices located at contractor operated sites and responsible for day-to-day oversight of M&O contractors—have established their own procedures for using information from CAS to conduct oversight, but these procedures also are not always complete and differ among field offices. For example, five of NNSA's seven field offices reported having complete procedures for assessing CAS maturity, but these procedures describe different processes and rating scales for conducting such assessments. The other two field offices reported not having such procedures. NNSA had designed a process for validating field offices' oversight approaches, including the extent to which these approaches use information from CAS, but NNSA discontinued this process after determining that it had not been effective. Discontinuing this process without replacing it with another form of validation eliminated the internal control activity NNSA designed to assure the effectiveness and consistency of oversight approaches across the nuclear security enterprise, including the appropriate use of information from CAS.

NNSA also has not established policies or guidance specific to using information from CAS to evaluate M&O contractor performance. Neither NNSA policy nor NNSA's Handbook published in 2013 to guide the performance evaluation process includes information on how or to what extent NNSA officials should use information from CAS in evaluating M&O contractors' performance. Some field office officials told GAO they developed their own procedures on performance evaluation. GAO reviewed these procedures and found they were not sufficiently detailed for using information from CAS to evaluate contractors' performance.

NNSA has not determined whether it has sufficient, qualified personnel to implement its framework for using information from CAS for oversight or for performance evaluation. NNSA officials GAO interviewed were unable to identify any studies that had been completed that assessed this question. Field office officials have raised concerns that staffing levels and the mix of staff skills may not be adequate to conduct appropriate oversight in the future and that this may result in overreliance on information from CAS without the ability to ensure that this information is sufficiently mature. In 2013, concerned about their capacity to fully support all oversight requirements, field offices called on NNSA headquarters to initiate a review of field office staffing resources needed to implement the oversight and performance evaluation framework and whether a staffing model including shared technical staff among field offices could address these concerns. NNSA began this review, but NNSA headquarters officials said it was not completed, the data reviewed are now too old to be useful, and that the agency has no plans to complete it. These officials said that they plan on discussing staffing issues with senior leadership in 2015.

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Abbreviations

CAS	contractor assurance systems
CBFO	capabilities based field office
CDNS	Chief of Defense Nuclear Safety
CMMI	Capability Maturity Model Integration
DOE	Department of Energy
EFCOG	Energy Facility Contractors Group
EM	Office of Environmental Management
FAR	Federal Acquisition Regulation
Handbook	Corporate Contractor Performance Evaluation Plan Evaluation Process Description Handbook
IG	Inspector General
M&O	management and operations
NAP	NNSA Policies
NNSA	National Nuclear Security Administration
NSC	National Security Campus
SSMP	Stockpile Stewardship and Management Plan
Y-12	Y-12 National Security Complex

U.S. GOVERNMENT ACCOUNTABILITY OFFICE
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May 22, 2015

The Honorable Fred Upton
Chairman
The Honorable Frank Pallone
Ranking Member
Committee on Energy and Commerce
House of Representatives

The Honorable Tim Murphy
Chairman
The Honorable Diana DeGette
Ranking Member
Subcommittee on Oversight and Investigations
Committee on Energy and Commerce
House of Representatives

Nuclear weapons have been and continue to be an essential part of our nation's defense strategy. During the cold war, the United States designed, produced, and tested new nuclear weapons. In 1992, the United States placed a moratorium on the underground testing of nuclear weapons and, since then, has shifted to maintaining its existing nuclear weapons stockpile by extending the weapons' operational lives through refurbishment under the Stockpile Stewardship Program.[1] The National Nuclear Security Administration (NNSA), a semiautonomous agency within the Department of Energy (DOE), is responsible for managing nuclear weapon- and nonproliferation-related missions at research and development laboratories, production plants, and other facilities—known

[1]The Stockpile Stewardship Program was established in response to the 1994 National Defense Authorization Act.

collectively as the nuclear security enterprise. [2] NNSA oversees these missions. Much of the work to achieve these missions is performed by contractors under management and operating (M&O) contracts at the eight sites that comprise the nuclear security enterprise.[3] In fiscal year 2014, Congress appropriated over $11 billion to DOE to execute NNSA's missions, including nuclear weapons and nonproliferation programs, including work performed by M&O contractors.[4]

Prior to the creation of NNSA, program and contract management missteps led us to designate DOE's program and contract management as an area at high risk for fraud, waste, abuse, and mismanagement.[5] NNSA was established in 2000,[6] in part, to correct long-standing management and security problems in DOE's stewardship of its nuclear missions. As a newly established organization with some autonomy from DOE, NNSA was expected to establish clear roles and responsibilities for its headquarters operations, and between headquarters and its field

[2]Specifically, NNSA manages three national nuclear weapons design laboratories—Lawrence Livermore National Laboratory in California, Los Alamos National Laboratory in New Mexico, and Sandia National Laboratories in New Mexico and California; three nuclear weapons production plants—the National Security Campus in Kansas City, Missouri, the Pantex Plant in Texas, and the Y-12 National Security Complex in Tennessee; and the Nevada National Security Site, formerly known as the Nevada Test Site. NNSA also oversees management and operations of the tritium facilities at DOE's Savannah River Tritium Enterprise in South Carolina; tritium is a key radioactive isotope used to enhance the power of nuclear warheads.

[3]M&O contracts are agreements under which the government contracts for the operation, maintenance, or support, on its behalf, of a government-owned or -controlled research, development, special production, or testing establishment wholly or principally devoted to one or more of the major programs of the contracting agency. The M&O contractors generally carry out the mission and activities of the particular contract on a daily basis, while following federal laws and regulations, and applicable requirements from DOE policies, orders, and its guides and manuals, known as directives.

[4]The M&O contractors at each site include: Consolidated Nuclear Security, LLC; Honeywell Federal Manufacturing &Technologies, LLC; Lawrence Livermore National Security, LLC; Los Alamos National Security, LLC; National Security Technologies, LLC; Sandia Corporation; and Savannah River Nuclear Solutions, LLC.

[5]GAO, *Government Financial Vulnerability: 14 Areas Needing Special Review*, GAO/OGC-90-1 (Washington, D.C.: Jan. 23, 1990). In this letter, GAO found that DOE had a history of inadequate contractor oversight.

[6]Pub. L. No. 106-65- § 3211 (1999).

offices.[7] Since 2000, we have continued to identify problems across the nuclear security enterprise, ranging from significant cost and schedule overruns on major projects to ineffective oversight of security at NNSA sites.[8] Recently, the National Research Council and the National Academy of Public Administration raised concerns that DOE and NNSA oversight of M&O contractors' work at the national laboratories has been excessive and that overly prescriptive and burdensome safety and security requirements have negatively affected the quality of science performed at the labs.[9]

To address issues with its oversight of contractors, in 2011, NNSA issued (NAP)-21, a Policy Letter entitled Transformational Governance and

[7]NNSA maintains seven field offices that are responsible for providing day to day oversight of the activities of the M&O contractors at each of the eight sites in the nuclear security enterprise. In 2012, NNSA combined its field offices at the Pantex Plant and Y-12 National Security Complex into one field office known as the NNSA Production Office. The NNSA Production Office is located in Oak Ridge, Tennessee, and maintains federal oversight staff at both the Pantex Plant and the Y-12 National Security Complex.

[8]See, for example, GAO, *NNSA Management: Progress in the Implementation of Title 32*, GAO-02-93R (Washington, D.C.: Dec. 12, 2001); GAO, *Nuclear Security: NNSA Needs to Better Manage Its Safeguards and Security Program,* GAO-03-471 (Washington, D.C.: May 30, 2003); GAO, *National Nuclear Security Administration: Key Management Structure and Workforce Planning Issues Remain As NNSA Conducts Downsizing,* GAO-04-545 (Washington, D.C.: June 25, 2004); GAO, *National Nuclear Security Administration: Additional Actions Needed to Improve Management of the Nation's Nuclear Programs,* GAO-07-36 (Washington, D.C.: Jan. 19, 2007); GAO, *Los Alamos National Laboratory: Long-Term Strategies Needed to Improve Security and Management Oversight,* GAO-08-694 (Washington, D.C.: June 13, 2008); GAO, *Nuclear Security: Better Oversight Needed to Ensure That Security Improvements at Lawrence Livermore National Laboratory Are Fully Implemented and Sustained,* GAO-09-321 (Washington, D.C.: Mar. 16, 2009); GAO, *Nuclear Weapons: NNSA Needs More Comprehensive Infrastructure and Workforce Data to Improve Enterprise Decision-making,* GAO-11-188 (Washington, D.C.: Feb. 14, 2011); GAO, *Modernizing the Nuclear Security Enterprise: Observations on the National Nuclear Security Administration's Oversight of Safety, Security, and Project Management,* GAO-12-912T (Washington, D.C.: Sept. 12, 2012); GAO, *Department of Energy: Concerns with Major Construction Projects at the Office of Environmental Management and NNSA,* GAO-13-484T (Washington, D.C.: Mar. 20, 2013); and GAO, *Nuclear Security: NNSA Should Establish a Clear Vision and Path Forward for Its Security Program,* GAO-14-208 (Washington, D.C.: June 30, 2014).

[9]See, National Research Council, *Managing for High-Quality Science and Engineering at the NNSA National Security Laboratories*, The National Academies Press, Washington, D.C., (Washington D.C.: 2013); and National Academy of Public Administration, *Positioning DOE's Labs For the Future: A Review of DOE's Management and Oversight of the National Laboratories* (Washington, D.C.: January 2013).

Oversight,[10] which laid out a framework for, among other things, how NNSA would conduct oversight over its M&O contractors. Under the framework, when appropriate, NNSA was to place greater reliance on information from contractor assurance systems (CAS)—management systems and processes designed and used by NNSA's contractors to oversee their own performance and self-identify and correct potential problems—and to focus scarce federal oversight resources on areas of highest risk or weakest contractor performance.[11] NAP-21 also envisioned a role for information from CAS to be used in NNSA's annual evaluation of contractors' performance. This annual performance evaluation process culminates in NNSA's determination of M&O contractors' award fees, collectively worth hundreds of millions of dollars, as well as whether contractors will receive contract term extensions. NAP-21 further envisioned that NNSA could become smaller and more efficient through the use of CAS. Among the areas of performance NNSA annually evaluates is contractors' progress toward implementing effective CAS.

Following two separate events in 2012, some have questioned the extent to which NNSA can rely on information from CAS for overseeing contractors and for evaluating performance as envisioned by NAP-21. First, on July 28, 2012, a serious security breach occurred at NNSA's Y-12 National Security Complex (Y-12), a site focused on processing and storing uranium, when three individuals gained access to the area surrounding a highly enriched uranium storage facility without being interrupted by the security measures in place. DOE's Inspector General (IG) found that the Y-12 site's M&O contractor properly recorded a growing backlog of maintenance needs to address security equipment failures in its CAS but did not act to address the security equipment failures.[12] Moreover, the IG found that NNSA oversight officials located at

[10]NNSA Policies (NAP) impart policy and requirements unique to NNSA or provide short-term notices until more formal direction can be provided.

[11]Throughout this report, we use the phrase "information from CAS" to describe contractor generated information made available to NNSA through any of an M&O contractor's management systems and processes that are considered part of its CAS. M&O contractors describe their CAS in CAS Description Documents that are approved by NNSA. Information from CAS stands in contrast to information about contractors' activities and performance that is developed by federal officials.

[12]U.S. Department of Energy, Office of Inspector General, *Special Report: Inquiry into the Security Breach at the National Nuclear Security Administration's Y-12 National Security Complex*, *Special Report*: IG-0868 (Washington, D.C.: Aug. 29, 2012).

Y-12 believed that, because the contractor's CAS identified these maintenance needs, they were precluded from intervening to require the contractor to address the backlog. Specifically, the IG reported that NNSA oversight officials at Y-12 said that, as long as the contractor identified maintenance issues and took compensatory measures, such as dispatching a guard to visually inspect an area where equipment was not fully operational, they could take no action to prompt the contractor to complete needed repairs. A February 2013 report from the IG evaluating NNSA's oversight of contractors concluded that, although contractors had not yet implemented fully functional and effective CAS, NNSA had placed substantial reliance on its contractors to self-identify and correct weaknesses that threatened the safe, secure, effective, and efficient operation of their sites within the nuclear security enterprise.[13]

Second, on a separate occasion, in completing the fiscal year 2012 performance evaluation process, NNSA's official responsible for determining performance evaluation fees acted to award contract term extensions to two M&O contractors with performance evaluation recommendations—made by oversight officials with direct access to information from CAS—that were not initially high enough to qualify these contractors for the extensions. In one case, the responsible official raised the performance evaluation score for one M&O contractor above the score recommended and, in the other case, waived the minimum score requirement for a M&O contractor to earn a contract term extension. In the same February 2013 report, the DOE IG noted that NNSA had not established or fully defined the relationship of CAS to contractor performance plans used to determine contractor fee at all of its sites. The IG noted at the time that NNSA was planning to reform its approach to contractor oversight, including the CAS.

In this context, you asked us to review NNSA's progress in implementing its framework for using information from CAS for contractor oversight and performance evaluation. This report examines the extent to which NNSA: (1) has fully established policies and guidance for using information from CAS to oversee M&O contractors; (2) has fully established policies and guidance for using information from CAS to evaluate M&O contractors' performance; and (3) has determined whether it has sufficient, qualified

[13]U.S. Department of Energy, Office of Inspector General, *Audit Report: National Nuclear Security Administration Contractor Governance:* DOE/IG-0881 (Washington D.C.: Feb. 19, 2013).

personnel to implement its framework for using information from CAS for oversight and performance evaluation.

To address our first two objectives, we obtained and analyzed key DOE and NNSA policies, procedures, and guidance and interviewed DOE and NNSA officials responsible for oversight and performance evaluation. We also visited and interviewed key federal oversight officials and contractors at the National Security Campus, Lawrence Livermore National Laboratory, Los Alamos National Laboratory, and Pantex Plant.[14] In addition, we surveyed officials from all seven NNSA field offices responsible for implementing elements of NNSA's framework for using information from CAS for oversight and performance evaluation purposes. For a copy of the survey instrument we used, see appendix III. We pretested our survey instrument with officials from two of these seven field offices. We took extensive steps in questionnaire development, follow-up, and analysis to minimize nonsampling errors. To address our third objective, we obtained and reviewed NNSA field office reports on staffing, analyzed field office officials' survey responses on this topic, and interviewed NNSA officials in both headquarters and field offices. For a complete description of our objectives, scope, and methodology, see appendix I.

We conducted this performance audit from February 2013 to May 2015 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

This section describes NNSA's activities in the nuclear security enterprise and M&O contracts, DOE and NNSA requirements for and definitions of CAS, federal oversight of M&O contractors under the NAP-21 framework, federal evaluation of M&O contractor performance, and information on the number of NNSA staff involved in M&O contractor oversight.

[14]We selected these sites and field offices because they represented a variety of program activities.

NNSA's Activities in the Nuclear Security Enterprise and M&O Contracts

NNSA's activities can generally be divided into two distinct areas: (1) mission-related activities and (2) mission-support activities.[15] Mission-related activities are those that directly pertain to fulfilling NNSA's mission or program objectives and are primarily overseen by program offices in NNSA headquarters responsible for integrating the program activities carried out across multiple sites. Mission-support activities, which are primarily overseen by officials at each of NNSA's field offices, help ensure that NNSA's mission and program objectives are achieved in an efficient, safe, secure, legally compliant, and environmentally sound manner. Examples of mission-related activities include the following:

- **Maintaining the nuclear weapons stockpile:** Activities undertaken to ensure that the nation sustains a safe, secure, and effective nuclear deterrent through the application of science, technology, engineering, and manufacturing, including maintaining the active stockpile and, as necessary, extending the lives of aging nuclear weapons and dismantling retired nuclear weapons.

- **Nuclear nonproliferation:** Activities undertaken to address and limit the possibility that terrorists or rogue nations will acquire nuclear weapons or materials or other weapons of mass destruction, including work with a wide range of international partners, other federal agencies, and the private sector to detect, secure, and dispose of dangerous nuclear and radiological material and to support the implementation of relevant treaties and agreements.

- **Naval reactors:** Activities undertaken to provide the U.S. Navy with militarily effective nuclear propulsion plants that are safe and reliable.

Examples of mission-support activities are as follows:

- **Environment, safety and health:** Activities undertaken to protect workers, the public, and the environment, including radiation protection, facility safety, nuclear explosive safety, and occupational health.

[15]For purposes of this report, the terms "mission-related activities" and "mission-support activities" are equivalent to "functional areas," a more technical term NNSA uses to describe groupings of activities needed to accomplish a particular mission-related or mission-support function. In the survey that we administered to NNSA field offices, we used NNSA's "functional areas" terminology to refer to the groups of mission-related and mission-support activities described here.

- **Safeguards and security:** Activities undertaken to detect and deter theft and sabotage vulnerabilities throughout the nuclear security enterprise, including taking steps to protect critical NNSA facilities from vehicle bombs, strengthening facilities against attacks, and consolidating nuclear weapons material to reduce the number of targets to be protected.

- **Business operations:** Activities undertaken to ensure that business operations within the nuclear security enterprise are conducted in an effective, efficient, and legally compliant manner, including designing and administering the corporate planning, programming, budgeting and evaluation system, and systems and policies to manage human resources and developing and implementing procurement policies and procedures.

- **Infrastructure:** Activities undertaken to ensure the availability of appropriate facilities and equipment for accomplishing NNSA's mission, including operating and maintaining science, technology, engineering, manufacturing, and information technology facilities and equipment to sustain the capabilities that underpin the stockpile and other national security missions.

- **Emergency management and response:** Activities undertaken to maintain a high level of readiness for protecting and serving the United States and its allies through the development, implementation, and coordination of programs and systems designed to serve as a line of defense in the event of a nuclear terrorist incident or other type of radiological accident, including responding to accidents that may occur at NNSA's research or production sites.

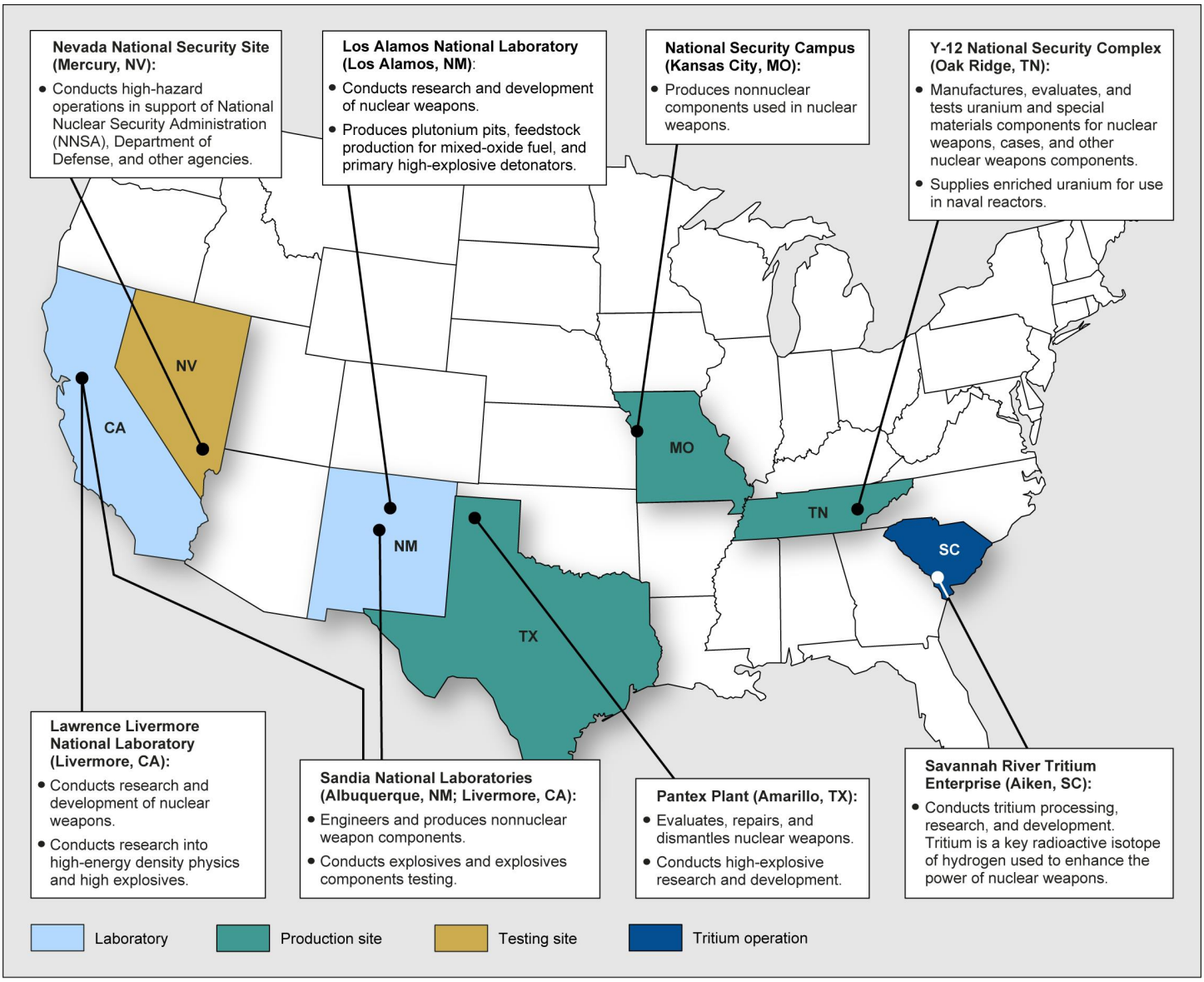
- **Construction project management:** Activities undertaken for the planning, programming, budgeting, and acquisition of capital assets projects, including delivering projects on schedule, within budget, with the required performance capability needed to support NNSA's missions, and compliant with quality, environmental, safety, and health standards.[16]

[16]Per DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, capital assets are land, structures, equipment, and intellectual property, which are used by the federal government and have an estimated useful life of 2 years or more. Capital assets may be acquired in different ways, including through construction or other means.

The special nature of DOE and NNSA's relationship with M&O contractors in managing and operating government-owned or government controlled facilities is recognized in procurement rules. The Federal Acquisition Regulation (FAR)—which describes uniform policies and procedures for acquisition by executive agencies—describes this relationship as one where the work conducted by the contractor is of a long-term or continuing nature, involving high levels of expertise and continuity of operations and personnel.[17] NNSA is responsible for managing and overseeing the mission-related and mission-support activities undertaken by its contractors' at the research and development laboratories, production plants, and other facilities known collectively as the nuclear security enterprise, as shown in figure 1. Contractors operating under M&O contracts generally carry out the mission-related and mission-support activities of the particular NNSA site.

[17]FAR Subpart 17.6.

Figure 1: National Nuclear Security Administration (NNSA) Research, Production, and Testing Sites



Sources: National Nuclear Security Administration; Map Resources (map). | GAO-15-216

Note: NNSA is responsible for overseeing its contractors' mission- and mission-support related activities in research and development laboratories, production plants, and other facilities known collectively as the nuclear security enterprise. Contractors operating under management and operating (M&O) contracts generally carry out the mission and activities of the particular site they manage and operate on a daily basis. NNSA maintains seven field offices to oversee day-to-day operations of these sites. Prior to 2012, NNSA maintained a separate field office at each site, but in 2012, NNSA combined the field offices at the Pantex Plant in Texas and the Y-12 National Security Complex in Tennessee into one field office, the NNSA Production Office. The NNSA Production

Office, located in Oak Ridge, Tennessee, maintains staff at both Pantex and Y-12. The Savannah River Tritium Enterprise is a subset of activities that NNSA oversees of a larger M&O contract for the Savannah River Site in South Carolina, which is overseen by the Department of Energy's Office of Environmental Management.

DOE and NNSA Requirements for and Definitions of CAS

DOE and NNSA policies and orders concerning CAS have evolved over time and now require that each NNSA M&O contractor must have a CAS. This requirement has also been incorporated into the M&O contracts themselves. In April 2002, in an internal memorandum, DOE outlined an approach for improving contract performance and promoting greater contractor accountability by, among other things, moving from an oversight approach focused on compliance with requirements contained in DOE orders and directives to relying on contractor management information to establish accountability and drive improvement. In 2005, DOE issued DOE Policy 226.1, Department of Energy Oversight Policy, and followed it with an associated implementing order requiring that assurance systems be implemented by DOE M&O contractors, among others, to encompass all aspects of the activities designed to identify deficiencies and opportunities for improvement. This 2005 order and policy applied to processes to protect the public, workers, environment, and national security assets and to perform business operations. In February 2011, NNSA issued NAP-21 with the purpose of providing further direction to NNSA officials and M&O contractors about the framework for the oversight model. According to NAP-21, NNSA contracting officials are responsible for including NAP-21 policy in NNSA M&O contracts. Later in 2011, DOE issued Policy and Order 226.1B, which updated existing DOE oversight policy.[18] These concepts will be discussed below.

According to NNSA officials, CAS should be a contractor-designed and utilized system to manage performance consistent with contract requirements. The CAS is intended to allow the contractor to assess its performance; provide data for its management decisionmaking process; and more effectively manage processes, resources, and outcomes. When effectively implemented, a CAS should provide both the contractor and the federal oversight staff the data necessary to manage and oversee contract performance. Once effectively implemented, each M&O contractor's CAS should support the contractor in self-assessing

[18]DOE Policy and Order 226.1 issued in 2005 were superseded by DOE Policy and Order 226.1A issued in 2007. DOE Policy and Order 226.1B, issued in 2011 and still in use, superseded the 2007 versions.

performance, developing data for decision-making purposes, and more effectively managing processes, resources, and outcomes. Further, a contractor's CAS is to be transparent to NNSA officials and be useful to them in determining their approach to overseeing different mission-related and mission-support activities. According to NNSA officials and M&O contractor staff, the concept of CAS is similar to private sector quality assurance systems and, at least in the case of the contractor at the National Security Campus, was developed based on the parent company's management assurance system.[19] Each contractor's CAS may vary in terms of the systems and processes it covers, and how information from CAS is made available can range from a standard but regularly updated presentation to a dynamic database updated in real-time.

NAP-21, the policy most specific to establishing a framework for using information from CAS within NNSA, identifies the five attributes that a CAS should include. These five CAS attributes are as follows:

Assessments: The contractor is to use a robust and effective, risk-informed approach to develop, implement, and perform comprehensive assessments of all facilities, systems, and organizational elements, including subcontractors, on a recurring basis. For example, a contractor may have an independent assessment process, whereby laboratory and external personnel who are knowledgeable about the contractor's organization, program, or facility conduct assessments, such as conducting a review of weapons certification program and assessing research and development activities.

Operating experience: The contractor is to establish and effectively implement programs to collect, analyze, and use information from operational events, accidents, and injuries to prevent them in the future. For example, a contractor could establish a program, whereby project managers review lessons learned, including positive and negative operating experiences, during project planning and execution to meet mission objectives. Project managers may review potential lessons from a variety of sources, including management assessments, independent assessments, and external industry information sources.

[19]GAO, *National Nuclear Security Administration: Agency Expanded Use of Some Federal Oversight Reforms, but Is Still Determining Future Plans*, GAO-14-588 (Washington, D.C.: July 17, 2014).

Issues and corrective action management: The contractor is to ensure that a comprehensive, structured issues management system is in place to track and resolve issues identified for correction. This system is to use a risk-informed approach to provide for the timely and effective resolution of deficiencies. For example, a contractor may utilize an issues management process that encourages personnel at all levels to report issues to management for analysis and correction. The contractor may use a graded approach to determine the depth of investigation into a particular problem, as well as the development of an analysis plan to solve each identified problem.

Performance measures: The contractor is to identify, monitor, and analyze data measuring the performance of facilities, programs, and organizations. The data are used to comprehensively demonstrate all aspects of performance and project future trends. For example, a contractor may develop metrics to track and assess its performance for any mission-related or mission-support activity. An example of one such measure would be to track performance in meeting cost and schedule for construction of facilities at the site.

Integrated continuous process improvement: The contractor is to ensure the long-term sustainability and stewardship of the site and use the results of performance measures and other CAS data to achieve improvements in performance. For example, a contractor may use a causal analysis—a systematic process by which the cause of specific problems are identified. The contractor is then to ensure that identified issues are effectively resolved over the long-term.

Federal Oversight of M&O Contractors Under the NAP-21 Framework

Oversight of Nuclear Safety Performance

NNSA sites and field offices also are subject to reviews by other program offices. For example, NNSA Supplemental Directive 226.1-1A, *Headquarters Biennial Review of Nuclear Safety Performance*, establishes the requirements, processes, and procedures for conducting biennial reviews under NNSA's Chief of Defense Nuclear Safety (CDNS). CDNS is responsible for maintaining operational awareness of nuclear safety performance of NNSA field offices and contractors, among other things. One of the means by which CDNS maintains this awareness is through biennial and other types of reviews. These reviews provide information to NNSA managers on the status of program and field office nuclear safety oversight and implementation of nuclear safety requirements. CDNS convenes teams of evaluators who perform these reviews. These reviews also serve to help improve the implementation of contractor assurance systems and federal oversight in the areas of nuclear safety.

Source: GAO-15-216

Because of their close physical proximity to the work, NNSA federal oversight officials in field offices have key responsibilities for the day-to-day oversight of contractor activities at each site—principally mission-support activities—and also have some responsibility for assisting headquarters offices in overseeing mission-related activities for NNSA and DOE programs on site, as described in NAP-21. Headquarters offices are generally responsible for oversight of mission-related activities to achieve program objectives that must be integrated across the nuclear security enterprise. Additionally, some offices in NNSA headquarters develop policy and guidance for field offices to implement, such as for security. Further, oversight activities conducted by NNSA field and headquarters offices are also supplemented by DOE offices, such as the Office of Enterprise Assessments,[20] which may conduct its own inspections and reviews of contractors' security programs or field offices' oversight activities.

NNSA field offices oversee M&O contractors' performance using two broad approaches. First, "transaction-based oversight" is the term NNSA uses to describe the direct or hands-on approach to field offices' oversight of M&O contractors' performance through such mechanisms as on-site reviews, facility inspections, and other actions that involve direct evaluation of contractor activities.[21] As an example of transaction-based oversight, field office officials explained that field office staff may evaluate the effectiveness of a contractor's human health and safety programs by conducting inspections to determine if work spaces are safe. Second, "systems-based oversight" is the term NNSA uses to describe the approach to using contractors' processes and management systems and the information normally generated by those systems, or CAS and information from CAS. As an example of systems-based oversight, field office staff may monitor whether or not operations are adequately

[20]DOE's Office of Enterprise Assessments was established on May 5, 2014, when the former Office of Health, Safety and Security was divided into two separate organizations. The Office of Enterprise Assessments is charged with conducting safety- and security-related independent oversight assessments of sites across DOE, including NNSA sites, as well as enforcing safety- and security-related policy.

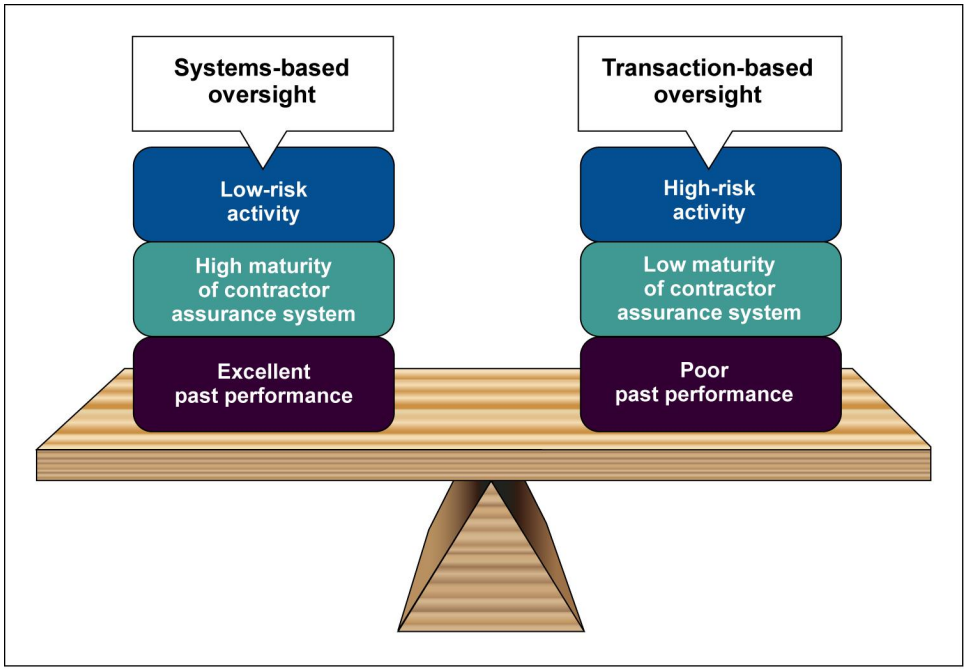
[21]NNSA field offices may also be the subject of transactional oversight from NNSA headquarters, or DOE offices. For example, NNSA headquarters has conducted reviews of field office transactional oversight activities as discussed later in this report. In addition, DOE conducts reviews of specific oversight activities, such as those concerning nuclear security.

protecting human health and safety by reviewing contractor reports of work-related accidents.

NAP-21 calls for NNSA to use a mix of systems-based and transaction-based oversight approaches in overseeing contractors' performance and provides a framework for determining the appropriate mix of these approaches based on the results of a three-pronged evaluation: (1) a risk assessment that analyzes the likelihood that an event will occur that adversely affects the achievement of mission or program objectives or harms human health or the environment; (2) a CAS maturity assessment that establishes the level of confidence NNSA officials have in the adequacy of performance information developed by the contractor and the ability of the contractor to effectively identify and address performance weaknesses; and (3) an assessment that considers the contractors' prior performance for a specific activity. NAP-21 allows for the oversight approach for any particular activity to range from primarily transaction-based oversight to primarily systems-based, or anywhere in between based on the outcome of these three assessments. Figure 2 shows the factors that should be considered by NNSA officials in determining the appropriate mix of oversight between systems- and transaction-based oversight activities as outlined in NAP-21. NAP-21 anticipates that, over time, as contractors' CAS mature, NNSA officials will use transaction-based oversight primarily for areas of highest risk and hazard, and systems-based oversight for lower risk and hazard activities where they can rely more heavily on a contractor's CAS.[22] According to NAP-21, oversight of certain high-risk activities, such as nuclear safety and security, is intended to remain transaction-based because of the risk level, regardless of CAS maturity or past contractor performance.

[22]NAP-21 defines high-hazard activities as those that could cause serious injury or death to workers or the public or serious damage to the environment and high-risk activities as those that involve nuclear operations and safeguards and security operations.

Figure 2: Factors for Determining an Appropriate Mix of National Nuclear Security Administration (NNSA) Activities to Oversee Management and Operating (M&O) Contractors



Source: GAO analysis of National Nuclear Security Administration policy on use of contractor assurance systems for oversight. GAO-15-216

Note: Under systems-based oversight, contractors' processes and management systems and the information normally generated by those processes and systems are used, in part, to provide oversight of M&O contractors' performance. Under transaction-based oversight, such mechanisms as field offices' on-site reviews, facility inspections, and other actions that involve direct evaluation of contractor activities are used to provide direct or hands-on oversight of M&O contractors' performance.

Federal Evaluation of M&O Contractors' Performance

NAP-21 calls for NNSA officials to evaluate contractors' performance based on performance information from contractors' CAS and other sources, as appropriate, including by conducting transaction-based oversight activities, such as facility inspections. As such, according to a NNSA official, the results of NNSA's oversight activities serve as inputs into NNSA's performance evaluation process and ultimately its determination of award fees and contract term extensions. According to agency officials, NNSA's contractor performance evaluation process was revised in fiscal year 2013 and establishes five performance objectives

common to all seven M&O contractors at the eight sites.[23] As part of one 2013 performance objective, each M&O contractor is evaluated on whether it could maintain and demonstrate an effective CAS. According to agency officials, the performance evaluation process is primarily described in NNSA's Corporate Contractor Performance Evaluation Plan Evaluation Process Description Handbook (Handbook) which, among other things, provides some direction to field offices on the development and use of contractors' self-assessments in evaluating contractor performance.[24] The Handbook instructs NNSA officials to take into consideration M&O contractors' self-assessments in completing a year-end assessment of their performance. These self-assessments include summaries of performance information captured in the systems included under a contractor's CAS.

The performance evaluation process was designed to assess each contractor based on its ability to accomplish NNSA's strategic goals and sets forth the criteria against which each contractor's performance is evaluated and upon which NNSA determines the amount of award fee that will be earned.[25] The revised process differs from NNSA's prior approach to performance evaluation in that NNSA is to evaluate each contractor on its achievement of broader, mission-related and mission-support objectives, rather than on the achievement of specific tactical or operational outputs, according to agency officials. For example, the fiscal year 2013 performance objective for the nuclear weapons mission intended for contractors to focus on a broader set of strategic national security priorities, such as accomplishing work within budget and cost. In contrast, the fiscal year 2012 performance objectives for each site were more specific, according to agency officials. For example, at one site, NNSA measured performance by assessing whether the contractor conducted required assessments of specific weapons systems. In addition to the five common performance objectives under the revised

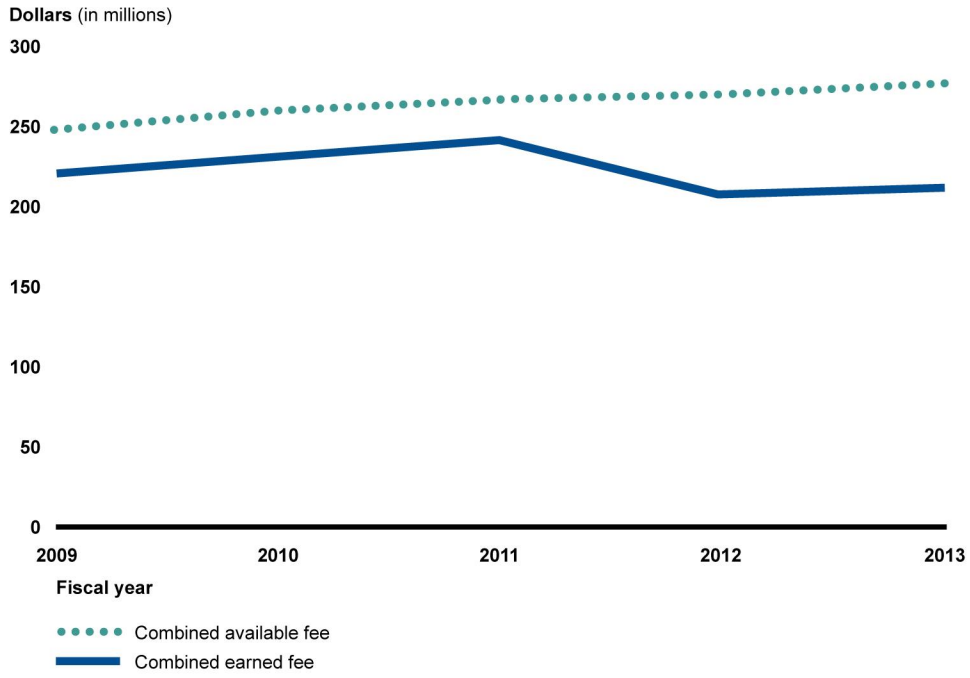
[23]As of 2013, the M&O contracts for two of the eight sites in the nuclear security enterprise were combined. Prior to 2013, NNSA's performance objectives were different for each of the eight M&O contractors.

[24]*FY 2013 National Nuclear Security Administration Corporate Contractor Performance Evaluation Plan Evaluation Process Description Handbook Draft* (Washington, D.C.: October 2013).

[25]Contract term extensions are also earned if the contractor's performance is evaluated to have met or exceeded a minimum score.

process, NNSA also established site-specific objectives, whereby contractors are evaluated on meeting additional site-specific targets. For example, at one site, the contractor is expected to define a road map for future capabilities that meets certain national security objectives. In addition to being reimbursed for all allowable costs of managing and operating a NNSA site, M&O contractors may earn annual fixed and performance incentive fees, as well as extensions to their contract terms for good performance. As shown in figure 3, the award fee available to all M&O contractors has increased by 19 percent for fiscal years 2009-2013. In 2012, the amount of fee contractors earned declined for the first time in several years.

Figure 3: Trend in National Nuclear Security Administration (NNSA) M&O Contractor's Available and Earned Fees for Fiscal Years 2009 to 2013



Source: GAO analysis of National Nuclear Security Administration data. | GAO-15-216

Notes: Dollar amounts are adjusted for inflation into constant 2014 dollars. Most recent data available from all sites with full available and earned fees was in fiscal year 2013. We did not include data from fiscal year 2014 because at two sites there was only partial fee information available due to a contractual change.

Combined available fee is maximum available award fee under existing contracts for all M&O contractors at all eight NNSA sites. Combined earned fee is the amount awarded to all contractors under the maximum available award fee at the eight sites. According to NNSA officials, for Savannah River Tritium Enterprise, NNSA inputs a portion of the available and earned award fee, and DOE provides input into the rest of the contractor's award fee.

According to NNSA officials, contractors at three sites, Lawrence Livermore National Laboratory, Los Alamos National Laboratory, and Y-12 Security Complex, were principally responsible for the decline in earned fees in 2012 and 2013 relative to prior years.

NNSA Human Capital

As of September 2014, NNSA's workforce was comprised of over 34,000 M&O contractor employees across the eight sites of the nuclear security enterprise and about 1,600 federal employees directly employed by NNSA in its Washington headquarters, field offices, and the NNSA Albuquerque Complex in Albuquerque, New Mexico.[26] In fiscal year 2014, about $377 million was appropriated to NNSA for federal salaries, out of over $11 billion appropriated for that year. The rest of the appropriations go to programs related to Weapons Activities, Defense Nuclear Nonproliferation, and Naval Reactors. The programs of the Weapons Activities appropriation, almost $8 billion in fiscal year 2014, are conducted primarily at the eight sites by contractors.

We first designated DOE's contract management—which includes both contract administration and project management—as a high-risk area in 1990 because DOE's record of inadequate management and oversight of contractors left the department vulnerable to fraud, waste, abuse, and mismanagement.[27] To reflect progress in addressing issues we identified, in January 2009, we narrowed the focus of DOE's high-risk designation to the Office of Environmental Management (EM) and NNSA.[28] Similarly, in February 2013, we further narrowed the focus to EM and NNSA's major

[26]NNSA's Albuquerque Complex provides financial, technical and other services to NNSA field offices and to offices at NNSA headquarters.

[27]GAO/OGC-90-1.

[28]GAO, *High Risk Series: An Update*, GAO-09-271 (Washington, D.C: Jan. 22, 2009).

contracts and projects.[29] In our February 2015 update, we did not observe further progress.[30] In its 2008 corrective action plan to address contract administration challenges, DOE recognized that having sufficient people and other resources to resolve its contract and project management problems was one of the top 10 issues facing the department. Specifically, the plan said that the department lacked an adequate number of federal contracting and project personnel with the appropriate skills (e.g., cost estimating, risk management, and technical expertise) to plan, direct, and oversee project execution. In April 2012, we reported on issues related to NNSA's workforce planning efforts.[31] Specifically, we found that NNSA and its M&O contractors face shortages in qualified critically skilled personnel and an aging workforce.[32]

[29]GAO, *High-Risk Series: An Update,* GAO-13-283 (Washington, D.C.: Feb. 14, 2013).

[30]GAO, *High-Risk Series: An Update*, GAO-15-290 (Washington, D.C.: Feb. 11, 2015).

[31]GAO, *Modernizing the Nuclear Security Enterprise: Strategies and Challenges in Sustaining Critical Skills in Federal and Contractor Workforces,* GAO-12-468 (Washington, D.C.: Apr. 26, 2012). Our prior work has shown that strategic workforce planning helps agencies use staff efficiently by (1) aligning an organization's human capital program with its current and emerging mission and programmatic goals and (2) developing long-term strategies for acquiring, developing, and retaining staff to achieve programmatic goals. For a discussion of workforce planning, see GAO, *Human Capital: Key Principles for Effective Strategic Workforce Planning*, GAO-04-39 (Washington, D.C.: Dec. 11, 2003).

[32]We recommended that NNSA consider developing standardized definitions across the enterprise, especially across M&O contractors, to ensure they gather consistent data using human capital metrics with consistent, uniform definitions. According to agency officials, NNSA fully considered the GAO recommendation but, for several reasons, opted not to develop standardized human capital metrics across the enterprise.

NNSA Has Not Fully Established Policies or Guidance for Using Information from CAS to Oversee Contractors, a Key Aspect of Policy Is Unclear, and the Agency Has Discontinued the Process for Reviewing Field Offices' Oversight Approaches

NNSA has not fully established policies or guidance for using information from CAS to conduct oversight of M&O contractors. For example, NNSA headquarters has not provided guidance for assessing the maturity of CAS beyond the general framework included in NAP-21. In addition, existing policy is unclear as to whether information from CAS is to be used in overseeing contractors' mission-related activities. Specifically, DOE and NNSA policy differ on the extent to which CAS should include information on mission-related activities. In the absence of NNSA establishing comprehensive policies and guidance, its field offices have developed their own procedures for using information from CAS to conduct oversight, but their procedures are not complete and differ among offices. In addition, NNSA has discontinued the process included in NAP-21 for headquarters reviews of the effectiveness of field offices' oversight approaches, the primary internal control activity included in the policy.

NNSA Has Not Fully Established Policies or Guidance for Using Information from CAS to Conduct Contractor Oversight

National Security Campus Oversight Reforms

Key reforms at the National Nuclear Security Administration's (NNSA) National Security Campus (NSC)—a site in Missouri that manufactures electronic and other nonnuclear components of nuclear weapons—included streamlining operating requirements by replacing Department of Energy (DOE) requirements with industry standards, where appropriate, and refocusing federal oversight to rely on contractor performance data for lower-risk activities, such as certain business operations. A 2008 DOE review of the reforms reported nearly $14 million in cost reductions were achieved at the site by implementing these reforms (see GAO, National Nuclear Security Administration: Agency Expanded Use of Some Federal Oversight Reforms, but Is Still Determining Future Plans, GAO-14-588 (Washington, D.C.: July 17, 2014)). NNSA has extended some elements of the reforms to other sites. However, NNSA and DOE are reevaluating implementation of some of these reforms after a July 2012 security breach at an NNSA site, where overreliance on contractor self-assessments was identified by reviews of the event, including by DOE's Inspector General, as a contributing factor. Moreover, NNSA officials noted that key factors enabling implementation of reforms at this site may not exist at NNSA's other sites. For example, most NNSA sites conduct high-hazard activities that may involve nuclear materials and require higher safety and security standards than NSC. For additional information, see GAO-14-588.

Source: National Nuclear Security Administration. | GAO-15-216

When NNSA issued NAP-21 in 2011, a key section was incomplete. Specifically, a chapter entitled Requirements Analysis Process appears in the table of contents, but the corresponding page in the document simply notes that details of the chapter would be developed at a later date. NNSA officials told us the content of this chapter has not been developed and that the agency has no time frames or plans for developing it; they said that the chapter was intended to establish a process for NNSA to examine current orders, guidance, policies, and other directives documents—as well as documents of this nature developed in the future—to identify those requirements that are essential to support safe and effective mission accomplishment. According to these NNSA officials, if such an examination had been included in NAP-21, it could assist M&O contractors in identifying key performance measures that could be tracked in CAS to help contractors' ensure their compliance with requirements in DOE and NNSA orders or directives. Further, according to these NNSA officials, the examination could also have resulted in DOE or NNSA identifying requirements that could be met in potentially less burdensome ways than described in existing orders and policies, such as by complying with industry standards rather than DOE orders for industrial safety. Such a required examination would have been similar to a pilot effort NNSA conducted at one site, its National Security Campus.

Further, as discussed above, NAP-21 outlines the evaluative framework NNSA officials are responsible to carry out in determining an appropriate mix of oversight approaches based on assessments of risk, CAS maturity, and past performance. However, NAP-21 does not provide detailed or comprehensive guidance to NNSA officials on how to conduct these assessments, and NNSA headquarters has not issued any additional guidance for this purpose. We found that DOE and NNSA have some policies and guidance that are relevant to conducting risk assessments for security and safety and, in some cases, for large construction projects. We did not, however, identify any headquarters-level policy or guidance for assessing CAS maturity, for assessing contractors' past performance to inform an oversight approach, or for assessing risk in other areas. Under the Standards for Internal Control in the Federal Government,[33] agency management is to clearly document internal controls, and the documentation should appear in management directives, administrative policies, or operating manuals to ensure that such controls are an integral

[33]GAO, *Standards for Internal Control in the Federal Government.* GAO/AIMD-00-21.3.1 (Washington, D.C.: November 1999).

part of agency operations. Although NAP-21 meets these standards, neither it, nor other orders, policies, or guides we reviewed provide sufficiently detailed or comprehensive guidance or procedures for NNSA officials conducting these assessments to do so consistently across the nuclear security enterprise. Without such policy or guidance, NNSA officials responsible for conducting assessments may do so inconsistently, and thus treat similar risks differently.

Senior NNSA officials told us that the agency had intended to update NAP-21, revise orders related to contractor oversight, and develop additional guidance to help field offices implement NAP-21. However, they said that, to date, the agency has not done so for a variety of reasons and that they do not have a time frame or specific plans for developing any additional guidance. For example, NNSA officials stated that NAP-21 had not been revised or replaced because, from January 2013 to April 2014, NNSA did not have a Senate-confirmed Administrator and had three different Acting Administrators. Officials said they intend to discuss improving oversight and the possibility of revising or replacing NAP-21 with NNSA's new, Senate-confirmed leadership in early 2015, and that the results of the November 2014 review of the Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise, as well as our review would inform that discussion.[34] Officials told us they were unsure if updating NAP-21 would be the appropriate vehicle for describing contractor oversight because the Y-12 security incident cast doubt on its effectiveness, or if replacing the policy with a new policy would be more effective, but that a permanent Administrator would be the right person to make this decision.

Further, NNSA's organizational structure has been in flux which, according to NNSA officials, has also contributed to guidance not being revised. For example, the lines of communication for how field office managers report to headquarters changed multiple times since 2011. In addition, NNSA consolidated the M&O contract for two of its sites in June 2012, awarding it to a single contractor, and consolidated the two field

[34]Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise *A New Foundation for the Nuclear Enterprise: Report of the Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise* (Washington, D.C.: November 2014). This panel was established by Section 3166 of the Fiscal Year 2013 National Defense Authorization Act that establishes the Congressional Advisory Panel and tasks the panel to offer recommendations "…with respect to the most appropriate governance structure, mission, and management of the nuclear security enterprise."

offices that oversaw the sites.[35] Officials from six of seven field offices responded to our survey that changes in organizational structure were a challenge in implementing oversight using CAS. Under the federal standards for internal control, a positive control environment is the foundation for all other standards, providing discipline and structure, as well as the climate which influences the quality of internal control. Among the key factors that affect the control environment is the agency's organizational structure. A good internal control environment requires that the agency's organizational structure clearly define key areas of authority and responsibility and establish appropriate lines of reporting. Having a more stable organizational structure could provide an improved control environment supportive of assessing revisions to existing policy and developing additional guidance for implementing the framework NAP-21 envisioned for determining appropriate oversight approaches.

NNSA's Policy Does Not Clearly Address Whether CAS Should Cover Mission-Related Activities

In addition to not having fully established policies or guidance for using information from CAS to conduct oversight of M&O contractors, NAP-21 is unclear with respect to whether it broadens the applicability of CAS beyond mission-support activities, such as safety and security, to cover mission-related activities, such as maintaining the nuclear weapons stockpile. Specifically, DOE policies on contractor oversight require CAS to cover contractors' performance of mission-support activities. However, NAP-21, while never specifically stating which activities CAS should cover, includes language linking CAS to oversight of mission-related activities. Table 1 summarizes key DOE and NNSA policies pertaining to contractor oversight and identifies the activities each contractor's CAS should cover. For example, DOE Policy 226.1B and its accompanying order—both summarized in table 1—require that CAS cover mission-support aspects of environment, safety, and health; safeguards and security; cybersecurity; and emergency management. This policy and order make no mention of mission-related activities. In contrast, NAP-21 states that CAS is a "fundamental element of NNSA's management strategy for assuring effective contractor performance in meeting mission objectives and other requirements." Further, NAP-21 states that an

[35]Historically, two of NNSA's major production sites that contribute to the maintenance and security of nuclear weapons—Y-12 in Tennessee and Pantex in Texas—were managed and operated under separate M&O contracts. In January 2013, NNSA awarded a single M&O contract for both sites. Prior to 2012, NNSA maintained a separate field office at each site but, in 2012, NNSA combined the two field offices into one, the NNSA Production Office in Oak Ridge, TN, which maintains federal oversight staff at both NNSA sites.

effective CAS should be focused on mission outcomes and be used by the M&O contractor to ensure that mission-related objectives are met.

Table 1: Key Department of Energy and National Nuclear Security Administration Policies on Contractor Oversight and the Activities they Require Contractor Assurance Systems (CAS) to Cover

Order or policy	Effective date	Description of order or policy	Activities CAS should cover
Supplemental Directive (SD) 226.1A, NNSA Line Oversight and Contractor Assurance System (LOCAS)	October 17, 2008	Establishes the broad framework for executing NNSA's overall oversight system.	Mission-support activities
NNSA Policy NAP-21, Transformational Governance and Oversight	February 28, 2011	Identifies principles, responsibilities, processes, and requirements to transform and improve oversight of NNSA's M&O contractors.	Does not specify activities but does discuss applicability to both mission-support and mission-related activities
DOE Guide 226.1-2A, Federal Line Management Oversight of Department of Energy Nuclear Facilities	April 14, 2012	Provides guidance for implementing DOE 226.1B specifically for nuclear facilities.	Mission-support activities
DOE Policy 226.1B, Department of Energy Oversight Policy and DOE Order 226.1B	April 25, 2011	Establishes DOE expectations for the implementation of an oversight process for the oversight of contractors.	Mission-support activities
NNSA SD 450.2, Functions, Responsibilities, and Authorities (FRA) Document for Safety Management	June 20, 2013	Clarifies NNSA safety management functions, responsibilities and authorities.	Safety (mission-support)

Sources: GAO analysis of Department of Energy (DOE) and National Nuclear Security Administration (NNSA) orders and policies. | GAO-15-216

Note: NNSA supplemental directives are issued in conjunction with DOE's directives system to indicate how NNSA will implement a DOE directive in a cost-efficient manner. NNSA's activities can generally be divided into two distinct areas: (1) mission-related activities and (2) mission-support activities. Mission-related activities are those that directly pertain to fulfilling NNSA's mission or program objectives and are primarily overseen by program offices in NNSA headquarters responsible for integrating the program activities carried out across multiple sites. Mission-support activities, which are primarily overseen by officials at each of NNSA's field offices, help ensure that NNSA's mission and program objectives are achieved in an efficient, safe, secure, legally compliant, and environmentally sound manner.

A senior official in NNSA's office responsible for overseeing nuclear weapons stockpile programs noted that DOE and NNSA policy and guidance is unclear as to the extent to which CAS is supposed to cover mission-related activities. Based on the results of our survey, we also found that field office officials do not all agree on whether NAP-21 requires CAS to cover mission-related activities. Officials from two field offices responded that the contractors' CAS at their sites partially covered mission-related activities, and officials from the remaining five field offices responded that they fully covered mission-related activities. Clarifying whether CAS is required to cover mission-related activities would ensure that expectations for how information from CAS will be used are consistent across the nuclear security enterprise.

Beyond questions of clarity concerning whether NAP-21 requires CAS to cover mission-related activities, NNSA headquarters' program officials with whom we spoke identified that for them it is challenging to access information directly from CAS and use it to oversee M&O contractors. As discussed above, these officials are generally responsible for overseeing mission-related activities associated with nuclear weapons and nonproliferation programs carried out at multiple sites within the nuclear security enterprise. One senior program official responsible for overseeing nuclear weapons stockpile programs said that contractors' CAS are not transparent to program offices the way they are to field offices. Further, according to program officials, it is resource intensive to use information directly from each contractor's CAS and to make it useful for examining programs that cut across multiple sites because each contractor has a different system. As such, according to these program officials, they typically request information from the field offices or directly from the contractors in formats more useful to them. Program officials told us they often are not aware of the source of the information they receive as a result of these requests. For example, one senior program official from NNSA's program office that oversees nuclear weapons stockpile programs told us that his program uses data for several types of metrics throughout the year to conduct mission-related oversight, but this information is requested from the field offices, and he is unaware as to whether the information was contractor-generated or whether the information was developed by federal officials and what, if any, steps were taken to verify the accuracy of the information. In contrast, contractor representatives with whom we spoke told us that mission-related information is captured in CAS and that program officials use it as part of their oversight approach whether they know where the information comes from or not. For example, one M&O contractor official pointed out that a tool used by numerous nuclear weapons program officials for monitoring program milestones is included in his contractor's CAS and is a source of data that field office officials provide to program offices when requested.

Field Offices Have Developed Their Own Procedures for Determining an Appropriate Mix of Oversight Approaches, but These Procedures Are Not Always Complete and Differ Among Field Offices

In the absence of sufficiently detailed and comprehensive guidance from NNSA headquarters for determining an appropriate mix of oversight approaches, NNSA field offices responsible for day-to-day oversight of M&O contractors report having developed their own procedures for this purpose. While these officials reported that their procedures for assessing risk are complete, these officials reported that their procedures for assessing CAS maturity and past performance in determining an appropriate oversight approach are not always complete.[36]

Officials from all field offices reported having complete procedures to assess risk.[37] For example, the Nevada Field Office was identified by the Energy Facility Contractors Group (EFCOG) as using leading practices for risk assessment.[38] The Nevada Field Office uses a risk assessment process that analyzes risks for (1) environment, safety, and health factors; (2) safeguards and security factors; (3) mission; and (4) cost to determine the combined risk for any activity area. The process includes assessment factors on CAS maturity and the contractor's past performance as evidenced by performance ratings documented by NNSA at the end of each fiscal year. The combination of these assessment factors, consistent with the NAP-21 framework, provides a

[36]We did not assess the quality of field offices' procedures largely because, as discussed above, neither DOE nor NNSA has provided the field offices with specific direction on these matters, beyond the framework laid out in NAP-21 and guidance for some risk assessment activities, which we could use as a source of comparison. We have defined "fully complete" to mean the procedures cover activities related to environment, safety and health; safeguards and security; mission; business operations; infrastructure; emergency management; and construction project management—and include steps for (1) assessing operational risk, CAS maturity, and past contractor performance and (2) using the results of these evaluations to plan annual line oversight priorities, or make real-time oversight decisions, such as monitoring the contractor, enhancing oversight by shadowing a contractor-led assessment, conducting an independent field office assessment, or taking a contract-related action.

[37]While we did not review the quality or consistency of field offices' assessments of risk, CAS maturity, or contractors' past performance, we observed that some field offices have not always documented the results of the assessments conducted in accordance with their procedures. For example, we observed at one field office the existence of extensive procedures for assessing risk, but when we attempted to obtain documentation of the field office's risk assessments—specifically those associated with construction project management—the official responsible for making risk assessment determinations stated that no such documentation exists for recent years.

[38]EFCOG is a self-directed group of contractors of DOE facilities that is to promote excellence in operation and management of DOE facilities through the exchange of information and improvement initiatives.

comprehensive risk score that helps the field office determine the most appropriate oversight approach. The Nevada Field Office's risk assessment process drives the development of annual schedules for contractor self-assessments and federal oversight assessments, allowing NNSA to reduce or eliminate assessments of little value and focus oversight resources on higher priority activities, according to EFCOG.

With regard to procedures to assess CAS maturity and past performance, officials from five of seven field offices reported that they have complete procedures to assess CAS maturity. Officials at one field office told us that they rely on the contractor to assess its own CAS maturity and identify any needed improvements in CAS and, therefore, do not have procedures for assessing CAS maturity. In contrast, we found that the Livermore Field Office had detailed instructions for assigning a rating for each of the five CAS attributes as described in NAP-21, across mission-support and mission-related activities.[39] An official from one field office reported that the office did not have complete procedures for assessing either the contractors' CAS maturity or past performance. With regard to assessing past performance, according to this official, officials from this field office review previous monthly contractor evaluation reports to determine if there are problem areas that may require additional focus for the year. However, the field office has no procedures that establish, for example, the frequency, method, depth, or scope of these assessments, or the responsibilities of the officials conducting them, such as documenting results.

While field offices report that their own procedures for determining an appropriate mix of oversight approaches are not fully complete, we identified significant differences among the procedures they do have that may affect NNSA's ability to ensure consistent oversight of its contractors. For example, the five field offices that reported having complete procedures for assessing CAS maturity use different processes and scales for rating maturity. Specifically, two field offices have procedures that provide general process flowcharts or other high-level descriptions of CAS maturity but do not define maturity levels or scales for rating CAS

[39]One other NNSA field office—Los Alamos—was very similar to the Livermore Field Office in that it applied ratings to four of the five attributes a CAS should include as described in NAP-21. However, the Los Alamos Field Office replaced the attribute "operating experience" with "alignment with laboratory goals," which is not fully consistent with NAP-21.

maturity and do not address whether or how to rate the maturity of each of the five CAS attributes described in NAP-21. The remaining three field offices have procedures that define maturity levels or scales for rating CAS maturity, but these rating scales differ. One of the three offices uses a scale with rating categories of "exceeds expectations," "meets expectations," "less than adequate," and "inadequate," where each category is defined in the procedures. These ratings are aimed at assessing some elements of the five CAS attributes, as described in NAP-21, but the office's procedures do not explicitly require a rating for all five attributes a CAS should include per NAP-21 in each activity area. In contrast, procedures at another field office require a rating for all five attributes a CAS should include, by activity using a scale with categories for "fully meets," "partially meets," or "does not meet"—both in terms of implementation and effectiveness. The procedures also include steps that allow officials to assign additional confidence ratings for each activity area being assessed based on the extent to which they believe significant issues, weaknesses, or deficiencies exist in each area. NAP-21 recognizes that the missions of each site within the nuclear security enterprise differ, as do the risks associated with the activities they undertake and, therefore, provides flexibility to each field office to determine the mix of oversight appropriate for its contractor's activities. While each of these procedures may be effective for each field office's purposes, these differences could affect the consistency with which NNSA's field offices are determining an appropriate mix of oversight approaches.

NNSA Discontinued the Process for Headquarters Review of Field Offices' Oversight Approaches

NNSA headquarters discontinued its process established by NAP-21 for reviewing the effectiveness of contractors' CAS implementation and field offices' oversight approaches, effectively eliminating the primary internal control activity that NAP-21 included for the agency to evaluate its implementation across the nuclear security enterprise. This process, known as "affirmation," was designed for a federal assessment review team—composed of staff from program offices and field offices—to review each field office's mix of contractor oversight approaches and practices, as well as implementation of each M&O contractor's CAS. The goal of the review was to affirm that each contractor had a fully implemented and reliable CAS and that each field office's approach to oversight was appropriate. According to senior agency officials, these affirmation reviews were envisioned as a crucial element in ensuring the effectiveness of NNSA's overall approach to contractor oversight across the nuclear security enterprise.

NNSA Affirmed Y-12 CAS Prior to Security Incident

NNSA conducted an affirmation review of both the contractor's implementation of CAS and the field office's approach to oversight of the contractor prior to the security incident. In the affirmation report NNSA found that the approach to oversight at Y-12, which includes both the field offices' oversight of the contractor and the CAS system, "satisfies all elements of the Affirmation Review… all elements for line oversight were rated "fully meets," and four of the five CAS elements were rated "fully meets."

However, after the security incident where three individuals gained unauthorized access to the site by severing security fences in July 2012, a review of weaknesses at the site by DOE officials found that, the systems based assessment model as implemented was ineffective and unduly emphasized the contractor assurance process rather than actual performance. Consequently, NNSA does not have an effective capability to identity issues and may be unaware of significant problems prior to their realization. For example, quarterly reports from the field office rated the performance of the contractor on security issues as high, but this was based on contractor self-assessments (self-assessments are part of CAS). This weakness was not identified during the affirmation review even though identifying these types of weaknesses was the express purpose of the affirmation process. Further, DOE officials from the Office of Inspector General found that the security incident represented multiple system failures on several levels, including "troubling displays of ineptitude" in responding to alarms, failures to maintain critical security equipment, over reliance on compensatory measures, misunderstanding of security protocols, poor communications, and weaknesses in contract and resource management.[40] Contractor governance and federal oversight failed to identify and correct early indicators of these multiple system breakdowns.

Source: GAO analysis. | GAO-15-216

NNSA conducted affirmation reviews at three sites—Sandia National Laboratories, the Nevada National Security Site, and the Y-12 National Security Complex–and all three reviews resulted in affirmations. However, following the 2012 security incident at Y-12—which occurred after NNSA affirmed the implementation and reliability of the contractor's CAS and the effectiveness of the Y-12 field office's mix of oversight approaches—NNSA discontinued its affirmation review process. According to NNSA officials, after investigating the root causes for the security lapse at Y-12, NNSA determined that its affirmation reviews focused too heavily on affirming that a CAS existed and covered the five CAS attributes as outlined in NAP-21 and did not focus enough on evaluating the effectiveness of either the contractor's CAS or the field office's approach to determining the appropriate mix of systems- and transaction-based oversight. After discontinuing the affirmation reviews, NNSA initiated an Oversight Improvement Project to focus on evaluating the effectiveness of contractors' CAS and field offices' oversight approaches. However, a senior NNSA official told us the project was never completed, and NNSA has not developed another process in lieu of affirmation reviews.

Officials we interviewed from several field offices told us they would like NNSA headquarters to review their field offices' procedures and oversight approaches to provide reasonable assurance that they are "doing the right things." Officials from one field office told us that even though an affirmation review was not completed at their site, the field office was in the process of preparing for it when the Y-12 security incident occurred. These officials said that preparing for an affirmation review focused their efforts on documenting the procedures the field office had developed for conducting oversight and incorporating information from CAS, training federal oversight staff, and coordinating with the site's M&O contractor, but the incentive to continue these activities ceased when NNSA discontinued affirmation reviews. Officials from two field offices told us that NNSA headquarters officials have not sought input about how to ensure the effectiveness of oversight approaches going forward. Further, according to NNSA officials, the agency did not use the results of analyses of the Y-12 security incident to refocus the affirmation reviews on evaluating the effectiveness of the contractor's CAS or the field office's

[40]U.S. Department of Energy, Office of Inspector General, *Special Report: Inquiry into the Security Breach at the National Nuclear Security Administration's Y-12 National Security Complex*, DOE/IG-0868 (Washington, D.C.: August 2012).

approach to determining the appropriate mix of oversight approaches.[41] Discontinuing affirmation reviews without replacing them with another form of validation eliminates the internal control activity in NAP-21 to provide NNSA with assurance of oversight effectiveness across the nuclear security enterprise. Further, continuing the affirmation review process would have provided information allowing for oversight practices to be compared across field offices and for differences among them to be evaluated. According to NNSA headquarters and field officials, there is no current mechanism for this to occur although NAP-21 is still in force.

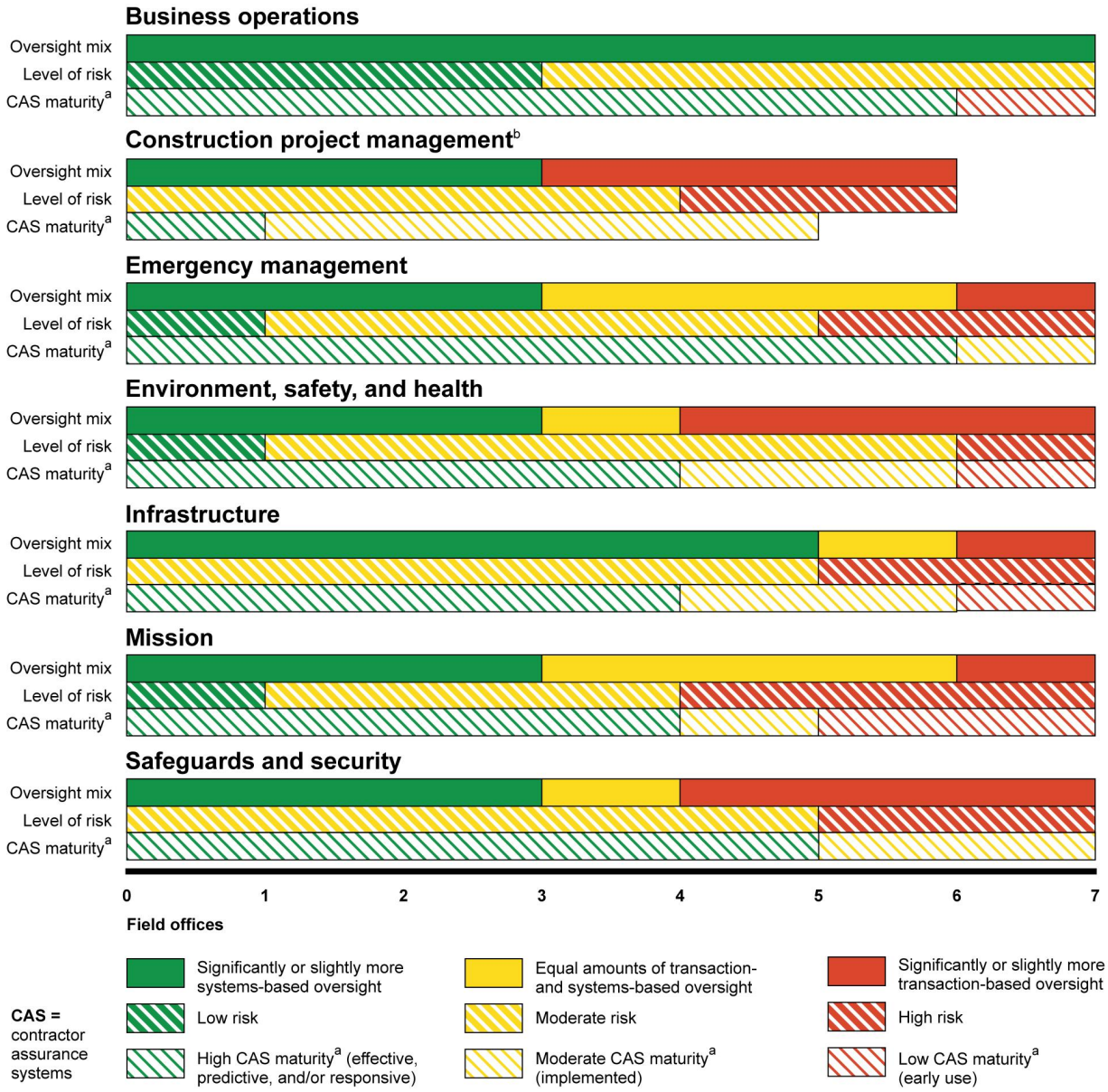
Field office officials' responses to our survey illustrate the differences in oversight approaches being applied across the nuclear security enterprise to mission-related and mission-support activities. While field offices' oversight approaches may be appropriate, the discontinuation of the affirmation process eliminated the opportunity for this evaluation. Figure 4 shows field offices' assessments of risk and CAS maturity for certain activities and their reported use of transaction- versus systems-based oversight approaches in these same areas.[42] All field offices reported heavy reliance on systems-based oversight for business operations, and five of seven field offices reported relying on systems-based oversight more than transaction-based oversight for infrastructure activities. Finally, three of seven field offices reported relying significantly on systems-based oversight for safeguards and security.[43]

[41]NNSA, *Assessment of NNSA Federal Organization and Oversight of Security Operations* (Washington, D.C.: Nov. 7, 2012).

[42]Because our analysis was neither intended to be comprehensive nor prove that field office oversight decisions were correct or incorrect, we did not include an assessment of past performance here in order to simplify our illustration.

[43]NAP-21 states that transaction-based oversight is most appropriate for nuclear and high-hazard activities, including, for example, part of the safeguards and security activity. Our survey only collected broad responses on all safeguards and security activities and did not collect information specific to nuclear and high-hazard subelements under the safeguards and security mission-support activity.

Figure 4: Field Offices' Assessments of Risk and CAS Maturity for Different Activities and Reported Use of Transaction- Versus Systems-Based Oversight in These Areas



Source: GAO survey of National Nuclear Security Administration field offices. | GAO-15-216

[a]In defining CAS maturity, we instructed field offices to use the following definitions: Early use—the process is defined but not implemented; Implemented—the process is defined and implemented but does not facilitate management decisions; Effective—a defined, implemented process that facilitates management decisions; and Predictive and Responsive—a defined, implemented process that is predictive of issues that need to be addressed and focuses on continuous improvement. This scale was developed based on interviews we conducted with field office officials at two sites and draws on

a scale developed by the Capability Maturity Model Integration (CMMI) Institute, which is affiliated with Carnegie Mellon University.

[b]One field office responded "don't know" for construction project management oversight mix and level of risk, and two field offices responded "don't know" for construction project management CAS maturity, so fewer than seven responses for this area are reflected in this figure.

The absence of an affirmation or other evaluation process may contribute to the challenges field office officials identified in responses to our survey related to using information from CAS to conduct oversight of M&O contractors. Specifically, officials from three of the seven field offices responding to our survey indicated that the need for clarity in expectations for field offices was a great to very great challenge. Similarly, officials from three field offices responding to our survey also indicated that the need for clarity in roles and responsibilities and communication barriers between field offices and NNSA headquarters posed great to very great or moderate challenges. For example, field office officials indicated that they were often unsure who in NNSA could provide guidance when they had questions about using information from CAS. Officials from three of the seven field offices responding to our survey indicated that they did not have consistent points of contact at NNSA headquarters who could answer questions, explain policy, or provide information about overseeing CAS implementation. In addition, officials from several of the field offices responding to our survey indicated that they did not have consistent points of contact at NNSA headquarters who could answer questions, explain policy, or provide information about conducting assessments of risk, CAS maturity, and contractors' past performance.[44] Officials from other sites reported that they have points of contact, but this contact varies, and only a few field office officials indicated that they had consistent points of contact. And finally, five field offices' officials responding to our survey indicated that changes in NNSA's organizational structure and reorganizations pose a moderate challenge to effectively using information from CAS when conducting contractor oversight. To elaborate on this challenge, field office staff at sites we visited said that NNSA had recently undergone several internal reorganizations that moved the field office reporting structure. Prior to June 2013, field offices managers reported to the Office of the Administrator. Starting in June 2013, field office managers were to report to the head of a newly created

[44]Officials from three of the field offices responding to our survey indicated that they did not have consistent points of contact at NNSA headquarters who could answer questions, explain policy, or provide information about conducting assessments of risk and contractors' past performance, while officials from four of the field offices indicated the same concerns regarding conducting assessments of CAS maturity.

Office of Infrastructure and Operations. The reporting structure was changed again in December 2013, when field office managers once again were to report to the Office of the Administrator. Field office officials told us that these reorganizations created additional uncertainty about who to contact on questions regarding how to use CAS.

NNSA Has Not Fully Established Policies or Guidance for Using Information from CAS to Evaluate Contractors' Performance

Similar to not having fully established policies or guidance for using information from CAS to conduct oversight of M&O contractors, NNSA has not fully established policies or guidance for using information from CAS to evaluate M&O contractors' performance. Some field office officials told us their offices have developed their own procedures for doing so; however, we reviewed these procedures and found they were not sufficiently detailed to guide use of information from CAS to evaluate contractors' performance. While headquarters program officials expressed concern over the maturity of CAS and the reliability of this information for performance evaluation purposes, field offices reported using information from CAS for this purpose.

NNSA Has Not Fully Established Policies or Guidance for Using Information from CAS to Evaluate M&O Contractors' Performance

NNSA has not fully developed policies or guidance that address how or under what circumstances to use information from CAS to evaluate M&O contractors' performance. NNSA has four policy and guidance documents that establish its current M&O contractor performance evaluation process. These four documents discuss performance evaluation in the context of an overall oversight model that includes CAS, but none fully describes how or to what extent information from CAS should be used for performance evaluation.[45]

First, in 2008, NNSA issued its NAP-4B policy letter, Corporate Performance Process for M&O Contractors, which established a contractor performance evaluation process across NNSA. NAP-4B provides a high-level basis for how the performance evaluation process should operate by describing the various phases of performance evaluation—such as what NNSA should include in its evaluation process, including monitoring, assessing, and documenting contractor performance. According to agency officials, NAP-4B remains in force as a guiding policy document for NNSA with respect to evaluating contractor performance, even though it has not been revised to reflect subsequent

[45]Our review did not find DOE specific policy and guidance discussing how or under what circumstances to use information from CAS to evaluate M&O contractor's performance.

policy. [46] NAP-4B does not specify how or to what extent information from CAS should be used in evaluating M&O contractor performance.

Second, in 2011, NNSA issued NAP-21, which directs NNSA officials to evaluate M&O contractors' performance based on information from contractors' CAS and other sources, including federally generated information obtained through transaction-based oversight activities. However, NAP-21 does not provide an evaluative framework for determining how or to what extent information from CAS should be used for assessing performance as it does for conducting oversight. NNSA has not completed the NAP-21 chapter originally intended to link CAS to performance evaluation. The chapter, preliminarily entitled Performance Evaluation Plan and Metrics was, according to placeholder language included in NAP-21, intended to identify the criteria by which NNSA would evaluate contractors' performance consistent with the principles included in the NAP-21 policy. According to a senior official at NNSA, this chapter remains incomplete and, as of January 2015, there was no timetable for completing it.

Third, later in 2011, DOE issued Order 226.1B, which superseded earlier orders on implementation of DOE oversight policy. In Order 226.1B, NNSA is required to evaluate contractor performance for effectiveness, establish and communicate performance expectations to contractors, and assess contractors' establishment of a CAS as part of their performance. However, the order did not specify how or to what extent information from CAS should be used for purposes of evaluating M&O contractor performance.

Last, according to a senior NNSA official, NNSA's contractor performance evaluation process is described in its Handbook—published in draft form in 2013 and, according to NNSA officials, used to guide fiscal year 2013 and fiscal year 2014 performance evaluation.[47] The Handbook describes certain steps involved in evaluating contractor performance, and it provides definitions for performance ratings and instructions for developing annual evaluation reports of contractors' performance, among

[46]According to NNSA officials, NNSA is currently revising NAP 4B, but these revisions have not been finalized as of February 2015.

[47]As of February 2015, a senior NNSA official told us that the Handbook remains in draft form and in effect while NNSA continues to update the process.

other things.[48] The Handbook also provides direction to contractors for developing their annual self-assessments, an output of CAS. The Handbook states that contractors' self-assessments should detail to NNSA how they performed against their annual performance evaluation plans, identify any areas in which performance was deficient, and explain how the contractor exceeded expectations in any areas where performance surpassed NNSA requirements.[49] While NAP-21 makes clear that self-assessments are one of the five CAS attributes, the Handbook does not specify how or to what extent NNSA officials are to use the self-assessments for evaluating contractor performance or whether they should use information from CAS to validate the self-assessments.[50] Other than the discussion of self-assessments, the Handbook does not discuss CAS.

Field Office Procedures Are Not Sufficiently Detailed to Guide Use of Information from CAS for Performance Evaluation

In the absence of headquarters policies and guidance on how to use information from CAS for performance evaluation, officials from four of seven NNSA field offices told us that their offices have developed their own procedures for using information from CAS to evaluate contractor performance.[51] Officials from the remaining three field offices indicated that they do not have such procedures. In reviewing the procedures developed by the four field offices that reported having them, we found that each refers to the role of CAS in performance evaluation, but each describes the role of CAS differently. For example, at one site, the

[48]The Handbook does not provide a description of how to identify which offices within NNSA are responsible for assessing each performance objective under the new performance evaluation process. We determined that field offices have lead responsibility for assessing contractors' performance for two performance objectives while headquarters program offices or the Office of the NNSA Administrator have lead responsibility for assessing contractors' performance for three performance objectives. A senior NNSA official said the next update of the Handbook will contain this information but, as of February 2015, the Handbook had not been updated.

[49]The Handbook's guidance on self-assessments compliments one of NAP-21's five attributes of CAS concerning self-assessments. Namely, contractors are to use a robust and effective, risk-informed approach to develop, implement and perform comprehensive assessments of all facilities, systems, and organizational elements, including subcontractors, on a recurring basis.

[50]According to NNSA officials, NNSA is currently updating the Handbook, but these updates have not been finalized as of February 2015.

[51]GAO submitted a data request in July 2014 to obtain procedures from seven field offices on the use of CAS information for performance evaluation. All seven field offices responded via e-mail and submitted documents to GAO.

procedures in place specify that the field office should consider results from the M&O contractor's CAS in evaluating contractor performance. At another site, however, the procedures in place describe how to validate and document M&O contractor performance, which could include information from CAS, but does not have specific reference to CAS. In addition, we reviewed the procedures developed by the four field offices that reported having them, and we found that these procedures are not sufficiently detailed to guide field offices in determining the extent to which information from CAS should be used to evaluate contractors. For example, officials from one field office provided us with documentation on how they evaluate contractor performance, and these officials told us that they did not make a distinction between contractor-generated information from CAS and other transaction-based oversight data when evaluating their contractor's performance. Under federal internal control standards, agencies are to clearly document internal controls, and the documentation is to appear in management directives, administrative policies, or operating manuals. Improving policies and guidance for using information from CAS for performance evaluation would help ensure that all involved in performance evaluation are using information from CAS consistently and appropriately.[52]

The Extent to Which NNSA Program and Field Office Officials Use Information from CAS to Evaluate M&O Contractors' Performance Varies

The extent to which headquarters program and field office officials use information from CAS in contractor performance evaluations varies in part based on officials' perceptions of the reliability of information from CAS. Officials from five headquarters program offices told us they were less confident in using information from CAS to evaluate contractors' performance because they do not have reasonable assurance that the information is fully accurate and reliable, and CAS is not yet fully mature among contractors. Other senior headquarters program officials we interviewed at six program offices noted that the maturity of CAS varies widely across contractors and that CAS is not yet sufficiently mature across all mission-related or mission-support activities to make full use of it for performance evaluation. A senior NNSA official in a headquarters program office noted that NNSA does not have implementing guidance related to conducting an assessment of CAS maturity for the purposes of performance evaluation that headquarters and field office officials can use to discuss CAS maturity consistently. The National Academy of Public Administration has also reported concerns by the Defense Nuclear

[52]GAO/AIMD-00-21.3.1.

Facilities Safety Board about the maturity of NNSA labs' CAS and whether they could ever develop sufficiently to substitute for field office on-site inspections and transactional oversight.[53]

Further, headquarters program officials stated that they cannot yet fully rely on contractors' self-assessments—those included in CAS and those generated as part of the annual performance evaluation process—for evaluating performance. According to NNSA officials from five headquarters program offices we interviewed, as well as NNSA reports documenting the results of annual performance evaluations, contractors' self-assessments are not self-critical enough and may reflect a more positive assessment of performance than what federal overseers may observe themselves. Senior officials from three headquarters' offices and officials from one field office told us that contractors tend to understate challenges and overstate their accomplishments in their self-assessments. The DOE IG has also reported on concerns about a contractor's self-assessments.[54] For example, in 2013, the DOE IG reported that some contractor self-assessments were not effective in identifying safety weaknesses subsequently identified by independent reviews.

As noted earlier, another reason for variability in the extent to which information from CAS is used in evaluating M&O contractors' performance is that, according to several headquarters' officials, it can be difficult to identify the source of the information used. For example, a senior official in NNSA's Office of Defense Programs, which has a mission involving maintenance of the nuclear weapons stockpile, told us he did not know if some of the data used to evaluate contractor performance were derived from the contractors' CAS. He said this was because his office did not trace this information back to its original source, and because there was no clear way to delineate between contractor-generated information from CAS and other information, such as third-party assessments. Further, a DOE official once responsible for making final evaluations of NNSA contractors' annual performance told us he was

[53]The National Academy of Public Administration is an independent, nonprofit, and nonpartisan organization chartered by Congress to assist government leaders in building more effective, efficient, accountable, and transparent organizations.

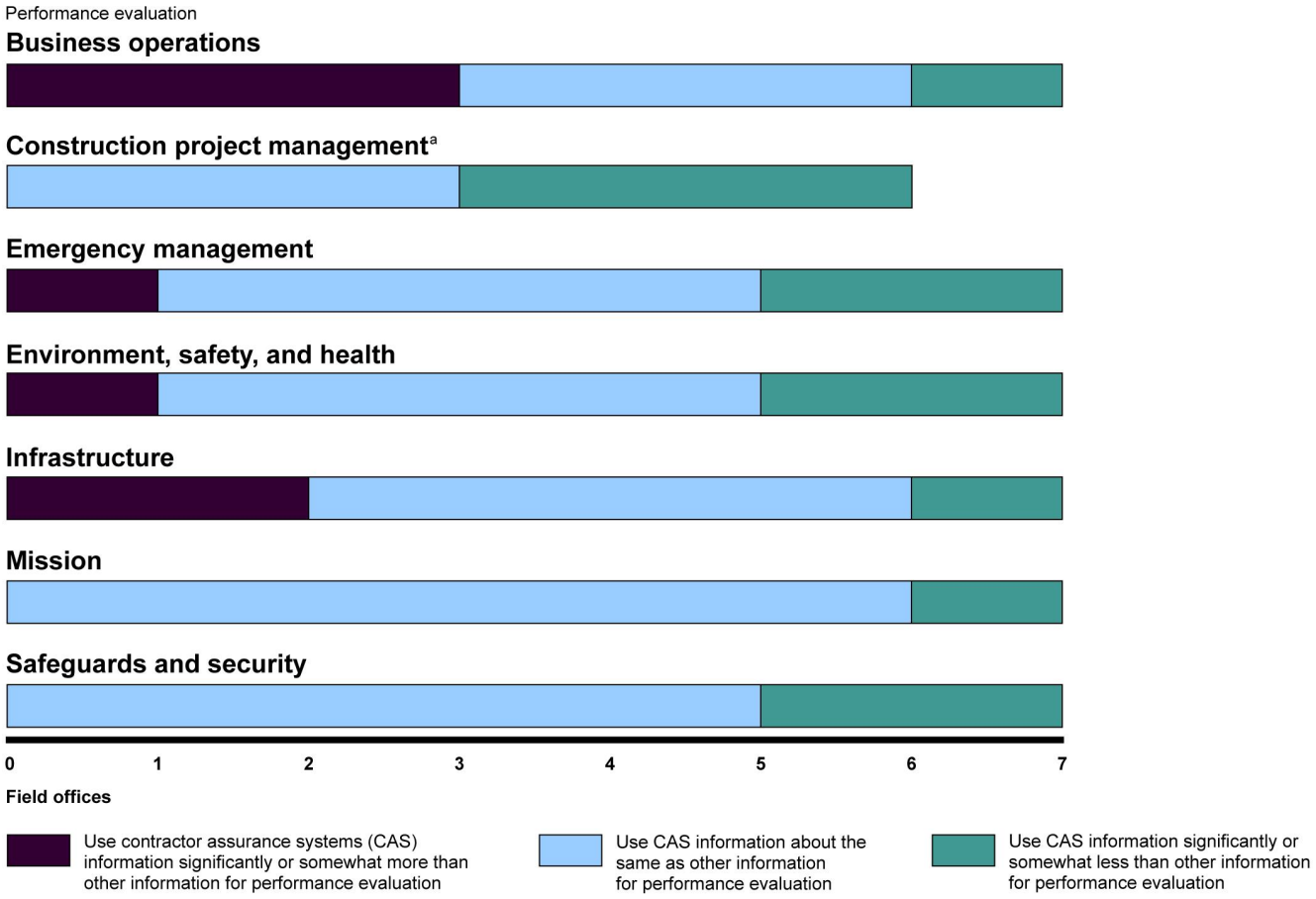
[54]Department of Energy Office of Inspector General, *National Nuclear Security Administration Contractor Governance*, Audit Report IG-0881 (Washington, D.C.: Feb. 19, 2013).

unable to make a distinction between the evidence from CAS or other sources that formed the basis for award fee recommendations he was asked to approve. Furthermore, when he asked those providing the recommendations for the sources of this information, they were unable to easily provide it or discern the source of the information.[55]

While agreeing that CAS maturity affects the extent to which information from CAS should be used to evaluate M&O contractors' performance, officials from three of four NNSA's field offices that we spoke with told us they are more likely to use information from CAS to evaluate M&O contractors' performance than their colleagues in headquarters program offices because they have experience assessing the maturity of their contractors' CAS as part of their oversight responsibilities. Officials from four field offices we interviewed said that their use of information from CAS for performance evaluation depended on factors such as the maturity level of CAS in each activity at the site and the credibility and accuracy of contractor's self-assessments. Officials we spoke with at four field offices also told us that because they were in a position to verify the information from CAS through direct observations of contractor performance, they are more confident in their understanding of the reliability of information from CAS than are their headquarters colleagues. Figure 5 compares field offices' responses to our survey on the extent to which they use information from CAS to evaluate M&O contractors' performance.

[55]We reviewed the fiscal year 2013 Administrator's decision package—which includes field office and headquarters' data and analysis of contractor performance—and found no direct references to the sources of data or how or to what extent information from CAS was used in generating performance recommendations.

Figure 5: Extent to Which National Nuclear Security Administration Field Offices Report Using Information from Contractor Assurance Systems (CAS) for Evaluating M&O Contractors' Performance, by Activity



Source: GAO survey of National Nuclear Security Administration offices. | GAO-15-216

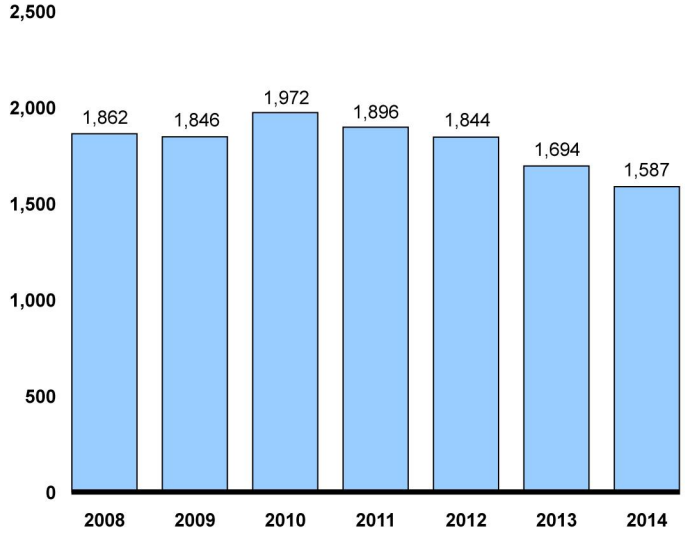
[a]One field office responded "don't know" for construction project management, so fewer than seven responses for this area are reflected in this figure.

NNSA Has Not Determined Whether It Has Sufficient, Qualified Personnel to Implement Its Framework for Using Information from CAS

NNSA has not assessed whether it has sufficient, qualified personnel to implement the framework described in NAP-21. As of September 2014, on-board federal staff at NNSA totaled 1,587. NNSA noted in its Fiscal Year 2015 Stockpile Stewardship and Management Plan (SSMP), a report updated annually that describes NNSA's long-term plans for sustaining and modernizing the stockpile and associated infrastructure,[56] that its field offices have experienced a decline of about 14 percent in staffing in recent years. NNSA officials told us that staffing levels across all of the nuclear security enterprise have been on a general downward trend. Figure 6 shows this trend. NNSA also noted in its SSMP that the downward trend in NNSA staffing can be traced in part to initiatives such as the oversight framework described in NAP-21, which envisioned reducing the size of the NNSA workforce while continuing to achieve NNSA's missions safely and securely. However, NNSA officials whom we interviewed could not explain how using information from CAS had affected staffing levels and, in response to our survey, only two of seven field offices indicated that their downsizing was at all driven by an increased ability to rely on information from CAS for oversight activities. In general, field offices' responses to our survey indicated their perception that staff reductions were driven by such factors as reductions in NNSA's overall full-time equivalent levels, attrition, NNSA hiring freezes, and budget constraints.

[56]DOE/NNSA, *Fiscal Year 2015 Stockpile Stewardship and Management Plan Report to Congress*(Washington, D.C.: April 2014.

Figure 6: Number of National Nuclear Security Administration Staff from Fiscal Year 2008 to Fiscal Year 2014



Source: GAO analysis of NNSA staffing data. | GAO-15-216

Note: This includes federal staff at NNSA headquarters and field offices but not federal staff in the Office of Naval Reactors or Office of Security Transportation Asset.

NNSA officials we interviewed were unable to identify any studies that had been completed that assessed whether NNSA has sufficient, qualified federal personnel in place across the nuclear security enterprise to conduct oversight of M&O contractors and evaluate their performance under the NAP-21 framework. However, NNSA reported in its fiscal year 2015 SSMP that staff levels for all NNSA organizations are constantly being reviewed to ensure that limited resources are dedicated to the highest priorities at the field offices and for headquarters operations.[57] Both the National Academies of Science and National Academy of Public Administration have conducted recent studies that suggest that NNSA needs to do more to ensure the agency has qualified, trained personnel to

[57]We requested that NNSA provide studies conducted in support of the statement in the SSMP, but none were provided. As part of our evaluation associated with GAO's fiscal year 2015 high-risk update (GAO-15-290), we reviewed DOE's study *Improving Project Management: Report of the Contract and Project Management Working Group* (November 2014), which identified a lack of independent oversight as creating problems for successfully executing projects and addressed skills and staffing issued associated with project management. This study, however, does not discuss CAS.

oversee the contractors. For example, a 2013 review by the National Academies of Science reported the views of some researchers at NNSA sites who observed that NNSA oversight officials blurred the lines between oversight and evaluation and inserted themselves into an operational role, directing contractor activities in great detail.[58] Further, a January 2013 National Academy of Public Administration review of DOE laboratories, including the three NNSA laboratories, noted that the change to oversight of M&O contractors using CAS would require a change in the roles and skill set of staff, as well as possibly a change in staffing levels.[59]

Field office officials have raised concerns that staffing levels and the mix of staff skills may not be adequate to conduct appropriate oversight in the near future and that this may result in overreliance on information from CAS without the ability to assure that this information is sufficiently mature. For example, in response to our survey of field offices, six of the seven field offices responded that fewer staff to implement NAP-21's approach to oversight is a challenge. Furthermore, five of seven field offices noted that not having certain subject matter experts is a challenge for oversight that could be exacerbated in the future as senior field office staff are expected to become retirement eligible. In a January 28, 2013, report to DOE's Federal Technical Capability Panel, one field office reported that its staffing levels were less than the number required to perform the oversight identified as necessary.[60] This field office noted that staffing shortages are offset through support from other offices and increased reliance on information from CAS. The report did not indicate if the field office's increased reliance on information from CAS for oversight was supported by the field office's analysis of the risk of the activity, the maturity level of the contractor's CAS, and contractor performance in the area. In response to our survey of NNSA field offices, four field offices responded that they either faced shortages or would face staffing

[58]National Academy of Science, *Managing for Quality of Science and Engineering at the NNSA National Security Laboratories* (Washington, D.C.: September 2013).

[59]National Academy of Public Administration, U.S. Department of Energy, *Positioning DOE's Labs for the Future: A Review of DOE's Management and Oversight of the National Laboratories* (Washington D.C.: January 2013).

[60]U.S. Department of Energy, *NNSA Annual Workforce Analysis and Staffing Plan Report as of December 31, 2012 Reporting Office: Los Alamos Field Office* (Washington D.C.: Jan. 28, 2013).

shortages in the next 5 years in critical areas, such as safety and security, due to retirements and a concern about authority to hire. These concerns mirror concerns we, and others, have reported in the past on staffing issues and technical training for field office staff. For example, in March 2009, we found that, according to one DOE official, one field office's security oversight program was "broken" in part as a result of oversight staff not having adequate technical training.[61] In April 2012, we found that NNSA faces challenges in recruiting, retaining, and developing its workforce.[62] Officials from NNSA field offices reported that their secure work environment and location make recruitment of candidates more challenging. Further, in 2014, the Congressional Advisory Panel noted that there is a nearly complete absence of career development programs, rotational assignments, and professional certification requirements.[63] NNSA has taken steps to address some of the deficiencies identified in these reports, but field office staff expressed to us their concerns that these types of deficiencies will persist if the agency does not have sufficient staff with the necessary skills to effectively implement the oversight requirements of the NAP-21 framework.

According to NNSA field office officials, in 2013, concerned about their capacity to fully support all oversight requirements, field offices called on NNSA headquarters to initiate a review across the nuclear security enterprise of field office staffing resources needed to implement NAP-21 and using the concept of the "capabilities based field office" (CBFO), a concept whereby NNSA would identify common activities that field office staff perform and would restructure field office staffing levels to best execute these activities. According to officials, the CBFO concept was a reaction to trends pointing to a continuing reduction of federal oversight staff. According to these officials, NNSA management had posited that, under certain circumstances, field offices could share some staff with specific technical capabilities rather than having redundant capabilities at field offices that might only need staff part-time. For example, certain field offices may not need a whole full-time equivalent employee for some

[61]GAO-09-321.

[62]GAO-12-468.

[63]Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise, *A New Foundation for the Nuclear Enterprise: Report of the Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise* (Washington, D.C.: November 2014).

positions, such as civil/structural engineer, and field offices may be able to share these resources among sites. To facilitate the discussion on whether or not this concept was feasible, field office staff drafted analysis plans for current and predicted staffing needs at each field office and the feasibility of using the CBFO model and submitted them to headquarters for review. However, according to NNSA headquarters officials, NNSA has no plans to complete this review, and the data from the analysis plans are now too old to be useful. These officials said that they plan on discussing staffing issues with senior leadership in 2015.

We reviewed these analyses and found that, at the time they were completed, all seven field offices indicated risks associated with moving to a CBFO model including (1) potential for decreased technical expertise when newer staff replace senior technical staff who retire, (2) a mismatch between informational needs of headquarters staff compared with resources of field offices to respond to those needs, (3) reliance on geographically diverse staff in the face of possible reductions in travel budgets, and (4) reduced oversight. All seven offices reported that a mitigation factor for reduced staff would be an increased reliance on information from CAS for oversight. Four of the offices indicated that any reduction in oversight would take into account the risk level of activities, but none mentioned CAS maturity or past contractor performance as factors in deciding whether increased reliance on CAS would be an appropriate mitigation strategy. Without a strategy to ensure that NNSA has sufficient, qualified staff to conduct oversight using the NAP-21 framework, NNSA faces the risk that its oversight strategy is not appropriate to the risks, CAS maturity, and contractor performance.

Conclusions

NNSA has attempted to increase the effectiveness and efficiency of its oversight and performance evaluation of M&O contractors who perform the work of maintaining our nation's nuclear arsenal by requiring contractors to develop and use CAS and by identifying ways for federal oversight officials to leverage these systems. This attempt is a positive step given current budget realities and the potential for reduced federal oversight staff; however, to achieve efficiencies for both federal overseers and NNSA's M&O contractors, contractors must be able to be relied upon to self-report operational successes and challenges through their CAS, and NNSA officials must have a solid framework for determining how and when to use information from CAS. Much work remains to be done to realize the full potential of this strategy.

Without fully establishing comprehensive oversight policies or implementing guidance, beyond the general framework included in NAP-

21, for using information from CAS to conduct oversight of M&O contractors, NNSA does not have complete standards against which to measure whether information from CAS is being used effectively for oversight. As such, NNSA runs the risk of not using its oversight resources effectively, either by underutilizing information from CAS and missing opportunities for efficiency, or by overrelying on information from CAS and possibly missing contractor performance issues that put safety, security, or mission accomplishment at risk. Further, areas among DOE and NNSA policies that are unclear—such as the applicability of CAS to oversight of mission performance—frequently changing organizational structures, and communication challenges between headquarters and field organizations create additional confusion.

NNSA's field offices have worked largely independently from NNSA headquarters to implement the framework for NAP-21 in the absence of sufficiently detailed or comprehensive policy and guidance from headquarters. As such, procedures that field offices have developed describe different practices for determining the appropriate oversight approach. We acknowledge that flexibility in selecting the most appropriate approach for each field office can be beneficial and appropriate; however, differences among field offices' procedures used for determining the appropriate oversight approach may affect NNSA's ability to compare assessments of risk, CAS maturity, and past performance across the nuclear security enterprise and ensure that contractors are overseen consistently.

NNSA had designed its affirmation process, included in NAP-21 and conducted at three sites, to validate field offices' oversight approaches, including the extent to which these approaches use information from CAS appropriately; however, in 2012, NNSA discontinued this process after determining it had not been effective. This discontinuation effectively eliminated the primary internal control activity that NAP-21 included for the agency to evaluate its implementation of the CAS framework across the nuclear security enterprise. An evaluation process like affirmation could help ensure consistency in field offices' procedures for assessing risk, CAS maturity, and past performance to determine an appropriate oversight approach, as well as providing an avenue to communicate about challenges that officials have identified to using information from CAS for oversight. Further, an evaluation process like affirmation could also help ensure that the extent to which field offices are relying on information from CAS for oversight of mission-related and mission-support activities is both appropriate and understood across the nuclear security enterprise.

NNSA's guidance on performance evaluation—including its new Handbook—does not address how to use information from CAS for informing performance evaluation decisions. Some program officials responsible for performance evaluation were not fully confident in the reliability of information from CAS to use it for performance evaluation purposes. And, while some field office officials closer to individual contractors' daily operations expressed more confidence in their knowledge of the maturity of information from CAS, they also shared some of the concerns of headquarters program officials with respect to the reliability of contractors' self-assessments. NNSA financially incentivizes contractors' implementation of CAS, but its role in the performance evaluation process is unclear, leading to differences between how program and field officials perceive of its utility and leading to variability in the use of information from CAS in evaluating M&O contractors' performance.

Finally, NNSA has not assessed its staffing needs to determine if it has sufficient, qualified personnel to implement the framework for oversight described in NAP-21, including use of information from CAS. This approach to oversight is fundamentally different than traditional, compliance-oriented oversight activities and requires a different focus on evaluating outcomes. NNSA staffing levels have been declining and may continue to decline. Field offices have reported that this trend will require them to rely more heavily on information from CAS to conduct oversight. NNSA began an effort to determine whether field offices could be staffed differently and also support this new approach to oversight, but the effort was not completed. CAS can be an important tool to focus federal oversight resources where they are most needed, but an overreliance on information from CAS without appropriate assessment poses risks, as evidenced by the recent security incident at Y-12. Without an understanding of the staff levels and skills needed for oversight, NNSA runs the risk of either relying on information from CAS even where NAP-21's framework for oversight would indicate that a transaction-based approach is warranted or of applying federal oversight resources in areas where using information from CAS would be warranted and more efficient.

Recommendations for Executive Action

To improve the internal control environment for oversight using information from CAS and develop a consistent approach to the use of information from CAS in M&O contractor oversight and performance evaluation across the nuclear security enterprise, we recommend that the Administrator of NNSA take the following five actions:

- Establish comprehensive NNSA policies and guidance, beyond a general framework as included in NAP-21, for using information from CAS to conduct oversight of M&O contractors, clarifying whether CAS is to cover mission-related activities, and describing how to conduct assessments of risk, CAS maturity, and the level of the contractor's past performance.

- Work with field office managers to establish field office procedures consistent with headquarters policy and guidance to support assessment practices for determining appropriate oversight approaches.

- Reestablish a process for reviewing the effectiveness of field offices' oversight approaches, including their use of information from CAS.

- Revise NNSA policy, guidance, and procedures on performance evaluation to fully address how and under what circumstances those responsible for evaluating M&O contractors' performance should use information from CAS for this purpose.

- Assess NNSA's staffing needs to determine whether it has sufficient, qualified personnel to conduct oversight activities consistent with comprehensive policies and guidance, including the use of information from CAS.

Agency Comments and Our Evaluation

We provided a draft of this product to DOE and NNSA for comment. DOE did not provide comments. NNSA provided comments and agreed with our recommendations. NNSA's comments, which outline actions planned to address these recommendations, as well as timelines for completion, are reproduced in appendix II.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies to appropriate congressional committees, the Secretary of Energy, the Administrator of NNSA, and other interested parties. In addition, this report is available at no charge on the GAO website at http://www.gao.gov.

If you or your staff members have any questions about this report, please contact me at (202) 512-3841 or trimbled@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix IV.

David C. Trimble
Director, Natural Resources and Environment

Appendix I: Objectives, Scope, and Methodology

This report examines the extent to which the National Nuclear Security Administration (NNSA): (1) has fully established policies and guidance for using information from contractor assurance systems (CAS) to oversee management and operations (M&O) contractors; (2) has fully established policies and guidance for using information from CAS to evaluate M&O contractors' performance; and (3) has determined whether it has sufficient, qualified personnel to implement its framework for using information from CAS for oversight and performance evaluation.

To understand these issues better, we developed and administered, from March 24, 2014, to April 2, 2014, a Web-based questionnaire accessible through a secure server to all seven NNSA field offices in the nuclear security enterprise on their oversight of implementation and use of CAS. We received responses from all seven field offices. Nonsampling errors can occur when differences in how a particular question is interpreted, the information sources available to respondents, or other factors, introduce unwanted variability into questionnaire results. We took extensive steps in questionnaire development, follow-up, and analysis to minimize nonsampling errors. For example, we had conversations with knowledgeable officials from NNSA headquarters to develop the questionnaire and identify the appropriate respondents (the field office official with primary responsibility for overseeing CAS implementation at each site). In addition, to ensure the questions were clear and consistently interpreted by these officials, we worked with an independent survey professional to create the Web-based questionnaire and refine the questions. Specifically, (1) subject matter experts from NNSA and a second, internal questionnaire specialist reviewed the questionnaire and (2) we conducted pretests at two NNSA field offices. During the pretests, we asked each respondent to complete the questionnaire as they would when they received it and followed up on each item to ensure that (1) the questions were clear and unambiguous, (2) terminology was used correctly, (3) the questionnaire did not place an undue burden on agency officials, (4) the information could feasibly be obtained, and (5) the survey was comprehensive and unbiased. We conducted one pretest in person at NNSA's Livermore Field Office in Livermore, California, and one pretest over videoconference with NNSA's Los Alamos Field Office. We selected these field offices because they represented a range of mission-support and mission-related activities. We made changes to the content and format of the questionnaire, as appropriate, based on the feedback we received from the expert reviews and pretests. Respondents were given unique passwords and usernames and were notified that the questionnaire was available via an e-mail announcement on March 24, 2014. We followed up with nonrespondents, as needed. We instructed

respondents to consult with others in their field office to prepare their responses, noting, however, that only a single response from each field office would be considered by GAO as the official response. We reviewed responses for completeness and reasonableness against other documentation or testimonial evidence we had collected, and followed up with respondents for clarification, as needed. We worked with a data specialist to analyze and interpret the survey results, and the SAS programs that produced our questionnaire results were reviewed by a second, independent programmer to ensure accuracy in the logic and syntax of the programs.

To assess the extent to which NNSA has fully established policy and guidance for the use of CAS to conduct M&O contractor oversight, we obtained and analyzed key Department of Energy (DOE) and NNSA policies, procedures, and guidance and interviewed cognizant DOE and NNSA officials responsible for oversight and performance evaluation in headquarters and in field offices. We also visited and interviewed key federal oversight officials and contractors at the National Security Campus (Kansas City, MO), Lawrence Livermore National Laboratory (Livermore, CA), Los Alamos National Laboratory (Los Alamos, NM), and Pantex Plant (Amarillo, TX). We selected these sites because they represented a variety of program activities. We also interviewed contractor officials at these four sites. We also conducted interviews and collected information from NNSA program offices with responsibility for oversight including the Office for Defense Programs, Office for Defense Nuclear Nonproliferation, Office of Defense Nuclear Security, and Office of Acquisition and Project Management. We also interviewed staff at the National Academy of Sciences and National Academy of Public Administration who developed reports related to NNSA oversight. We reviewed each site's M&O contract to determine if the contracts implemented DOE Order 226.1B and its Contractor Requirements Document attachment, which stipulates that each contractor must maintain a CAS and requires specific elements within each CAS. We found that each site's M&O contract either directly incorporated the DOE Order 226.1B or the contract contained language in a specific clause in the contract that NNSA determined to have been equivalent language to DOE Order 226.1 B. To determine the extent to which field office procedures for assessing risk, CAS maturity, and past contractor performance, are complete across NNSA sites, we asked field office officials responsible for overseeing CAS implementation at each of the

seven field office locations to provide copies to us of all relevant procedures and to rate the extent to which they believed these procedures to be fully complete and their implementation documented.[1] We also compared applicable steps within these procedures to NAP-21 policy, as well as other sites' procedures to identify examples of where sites' procedures describe different practices. To identify challenges in using information from CAS to conduct oversight of M&O contractors, we obtained and reviewed NNSA field office officials' survey responses regarding the challenges in using information from CAS to conduct oversight. We also spoke with one senior program official responsible for overseeing nuclear weapons stockpile programs about the challenges encountered from a program office perspective.

Regarding NNSA's establishment of guidance and policies for use of information from CAS for performance evaluation, we reviewed and analyzed DOE policies, orders, and directives pertaining to performance evaluation. We also reviewed and analyzed NNSA policies and guidance pertaining to performance evaluation, and we reviewed M&O contracts, internal memoranda and letters, and independent organizations' reports related to performance evaluation in NNSA and DOE. We obtained and reviewed procedures from all seven field offices to determine what instructions or guidance that field offices rely upon for use of information from CAS for performance evaluation of contractors. We also conducted interviews and collected information from NNSA program offices with responsibility for performance evaluation including Office of Infrastructure and Capital Planning, Office of Emergency Operations, Office of Packaging and Transportation, Office of Sustainability, Office of Environment, Safety, and Health, Office of Infrastructure Resource Management, Office for Defense Programs, Office for Defense Nuclear Nonproliferation, and a former Fee Determining Official to determine the extent to which information from CAS was used for performance evaluation in fiscal year 2013. We selected these program offices based

[1]We defined "fully complete" to mean the procedure(s) covers activities including environment, safety and health; safeguards and security; mission; business operations; infrastructure; emergency management; and construction project management—and includes steps for (1) evaluating operational risk, CAS maturity, and past contractor performance and (2) using results of these evaluations to plan annual line oversight priorities, or make real-time oversight decisions, such as monitoring the contractor, enhancing oversight by shadowing a contractor-led assessment, conducting an independent field office assessment, or taking a contract-related action. We provided this definition to field office officials as part of our request for copies of their procedures.

on their role and responsibility for input into oversight and performance evaluation of contractors at each site. We also reviewed and analyzed M&O contractor self-assessments; and NNSA documents such as Performance Evaluation Plans and Reports.

To assess the extent to which NNSA has determined whether it has sufficient, qualified personnel to implement its CAS policy, we obtained and reviewed NNSA reports from the seven field offices on staffing and analyzed survey responses on this topic. We also analyzed personnel data from DOE's Corporate Human Resources Information System and interviewed NNSA officials in field and headquarters offices.

We conducted this performance audit from February 2013 to May 2015 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Comments from National Nuclear Security Administration

Department of Energy
Under Secretary for Nuclear Security
Administrator, National Nuclear Security Administration
Washington, DC 20585

May 19, 2015

Mr. David Trimble
Director
Natural Resources and Environment
Government Accountability Office
Washington, DC 20458

Dear Mr. Trimble:

Thank you for the opportunity to review the Government Accountability Office's (GAO) draft report titled "Actions Needed to Clarify Use of Contractor Assurance Systems (CAS) for Oversight and Performance Evaluation" (GAO-15-216). We appreciate the auditors' extensive efforts and hard work which highlighted many of the inherent challenges associated with implementing a comprehensive assurance system across NNSA's diverse enterprise. We concur with GAO's recommendations.

The enclosure to this memorandum outlines actions planned to address the recommendations, as well as timelines for completion. If you have any questions regarding this response, please contact Dean Childs, Director, Office of Audit Coordination and Internal Affairs, at (301) 903-1341.

Sincerely,

Frank G. Klotz

Enclosure

Enclosure

NATIONAL NUCLEAR SECURITY ADMINSITRATION
Response to Report Recommendations

Actions Needed to Clarify Use of Contractor Assurance Systems for Oversight and Performance Evaluation, GAO-15-216

Recommendation 1: Establish comprehensive NNSA policies and guidance, beyond a general framework as included in NAP-21, for using information from CAS to conduct oversight of M&O contractors, clarifying whether CAS is to cover mission-related activities, and describing how to conduct assessments of risk, CAS maturity, and the level of the contractor's past performance.

Management Response: Concur

NNSA will cancel NAP-21 and issue a corporate policy that will form a comprehensive framework for Contractor Assurance Systems. This will include requirements for: (1) using information from CASs to conduct oversight of M&O contractors; (2) determining the scope and applicability of CAS as it relates to mission-related activities; and (3) conducting assessments of risk, CAS maturity, and the level of the contractor's past performance. This policy will also clarify the headquarters and field roles relative to assuring safe, secure and high quality mission delivery. The estimated completion date for the corporate policy is September 30, 2015.

The corporate policy will also require that implementation guidance be developed to define the key methodologies, attributes and reporting criteria to be used by field offices in developing procedures for effective and consistent communication of performance and system health expectations. The estimated completion date for issuance of implementation guidance is March 31, 2016.

Recommendation 2: Work with field office managers to establish field office procedures consistent with headquarters policy and guidance to support assessment practices for determining appropriate oversight approaches.

Management Response: Concur

Field offices will play a key role in the development of the corporate policy and the implementing guidance to promote enterprise-wide engagement. NNSA will require field offices to develop new or modify existing procedures as appropriate to support the new requirements. The estimated completion date for these activities is September 30, 2016.

Enclosure

Recommendation 3: Reestablish a process for reviewing the effectiveness of field offices' oversight approaches, including their use of information from CAS.

Management Response: Concur

The corporate policy and related implementing guidance will outline an approach for validating the effectiveness of the field office oversight activities. The estimated completion date for these activities is March 31, 2016, consistent with the timeline for recommendation 1.

Recommendation 4: Revise NNSA policy, guidance, and procedures on performance evaluation to fully address how and under what circumstances those responsible for evaluating M&O contractors' performance should use information from CAS for this purpose.

Management Response: Concur

The corporate policy and related implementing guidance will address the use of CAS information in evaluating M&O contractors' performance. The estimated completion date for these activities is March 31, 2016, consistent with the timeline for recommendation 1.

Recommendation 5: Assess NNSA's staffing needs to determine whether it has sufficient, qualified personnel to conduct oversight activities consistent with comprehensive policies and guidance, including the use of information from CAS.

Management Response: Concur

NNSA will assess our staffing needs and develop a staffing strategy for defensible and sustainable oversight. This strategy will implement the corporate policy and implementing guidance, while adhering to the constraints of the National Defense Authorization Act staffing ceiling. The estimated completion date for this activity is December 31, 2016, to allow for field level policies and procedures to be considered in the development of the staffing strategy.

Appendix III: GAO Survey to NNSA Field Offices on Use of Information from CAS for Oversight and Evaluation

Survey of NNSA's Use of Contractor Assurance Systems (CAS)

U.S. Government Accountability Office

Instructions for Completing the Survey

Please use the buttons at the bottom of this page, or in the menu on the left to navigate through the pages on this survey. Click on the "Exit" button to save your responses and log out of the survey. You may log in as often as you wish to update your responses until the survey period ends. Your survey form will restart where you left off.

For more information about how to use this web site, see Instructions. You may also email us questions using the contact links in the menu on the left, and on our survey home page.

Definitions

To assist in responding to the web-enabled questionnaire, GAO has provided definitions for terminology used throughout the questionnaire. Definitions are listed below and will also popup in relevant sections.

Assurance system: a system that encompasses all aspects of the processes and activities designed to identify deficiencies and opportunities for improvement, report deficiencies to responsible managers, complete corrective actions, and share in lessons learned effectively across all aspects of operation. (Source: DOE Order 226.1B)

DOE Oversight: encompasses activities performed by DOE organizations to determine whether federal and contractor programs and management systems, including assurance and oversight systems, are performing effectively and complying with DOE requirements. (Source: DOE Order 226.1B)

Functional Area: for the purpose of this survey, GAO refers to functional area to mean the following: 1) Environment, Safety, and Health 2) Safeguards and Security 3) Mission 4) Business Operations 5) Infrastructure 6) Emergency Management and 7) Construction Project Management. GAO derived this list from several DOE and NNSA sources, including NNSA Policy Letter NAP-21, DOE Order 226.1B, FY 2013 strategic performance evaluation plans, and interviews with NNSA field office personnel.

Governance: the system of management and controls exercised in the stewardship of an organization. (Source: NAP-21)

Maturity: for the purpose of this survey, we refer to CAS maturity as a level of confidence in the adequacy of performance information and in the ability to effectively address identified performance weaknesses. (Source: derived from NAP 21 and interviews with NNSA site offices)

Performance evaluation plan (PEP): PEPs are associated with M&O contracts that are award fee contracts. PEPs are NNSA's integrated corporate plans that document the process, associated performance objectives, performance incentives including multi-site performance incentives, award-term incentives, and associated measures and targets by which the contractor's performance will be evaluated and rated. (Source: NAP-21)

Performance evaluation report (PER): The PER represents the Department of Energy/National Nuclear Security Administration (DOE/NNSA) evaluation of a contractor's performance for a particular fiscal year against the Strategic Performance Evaluation Plan (PEP) under any given contract.(Source: 2013 Performance Evaluation Report)

Site Integrated Assessment Plan (SIAP): M&O contractor and NNSA field office officials prepare annual SIAPs for each site for purposes of scheduling, coordinating, and prioritizing M&O contractor, NNSA, and third-party assessments in a single integrated effort.

Systems-based oversight: oversight activities that assess contractor performance through evaluating the contractor's processes and management systems and the data normally generated by these systems. (Source: NA-1 Supplemental Directive 226.1A)

Transactional-based oversight: oversight activities that assess contractor performance through evaluating contractor activities at the work, task, or facility level; direct interaction with personnel at any level within the contractor organization; and direct independent federal staff evaluation of activities, physical conditions, and contractor documentation. (Source: NA-1 Supplemental Directive 226.1A)

Risk: the possibility that an event will occur and adversely affect the achievement of objectives. (Source: Standards for Internal Control in the Federal Government)

Risk assessment: process for assessing the risks facing the entity as it seeks to achieve its objectives. This assessment provides the basis for developing appropriate risk responses. (Source: Standards for Internal Control in the Federal Government)

Risk tolerance: the acceptable level of variation in performance relative to the achievement of objectives. (Source: Standards for Internal Control in the Federal Government)

I. NNSA's Approach to Contractor Oversight

1. *Per DOE Order 226.1B, assurance systems encompass all aspects of the process and activities designed to identify deficiencies and opportunities for improvement, report deficiencies to managers, complete corrective actions, and effectively share lessons learned across all aspects of operations.*

1. **What year did your site's contractor begin developing an assurance system (CAS or otherwise)?**

Per DOE Order 226.1B and NAP-21, contractor assurance systems (CAS) attributes include:
a. Assessments
b. Operating experience (lessons learned) programs
c. Issues and corrective action management systems
d. Performance measures
e. Integrated continuous improvement processes

2. **What year did your site's contractor begin developing a CAS inclusive of the attributes outlined above?**

3. **Do any of the following sources provide the basis for your oversight approach of CAS?**

	Yes, a primary basis for approach	Yes, a secondary basis for approach	No	Don't know
a. H-clauses of M&O contract	☐	☐	☐	☐
b. DOE Order 226.1B	☐	☐	☐	☐
c. DOE Policy 226.1B	☐	☐	☐	☐
d. NAP-21	☐	☐	☐	☐
e. NA-1 supplemental directive 226.1a	☐	☐	☐	☐
f. DOE guide 226.1-2	☐	☐	☐	☐
g. Field office specific policies, directives or instructions	☐	☐	☐	☐
h. Verbal or email guidance and memos	☐	☐	☐	☐
i. Other (describe below)	☐	☐	☐	☐

Other source for oversight approach.

4. **Of the sources noted above, which do you rely on most for your *daily* approach to oversight of CAS?**

[Select one]

Section I cont., page 2

*NNSA defines **systems-based oversight** as oversight activities that assess contractor performance through evaluating the contractor's processes and management systems and the data normally generated by these systems. **Transactional-based oversight** is oversight activities that assess contractor performance through evaluating contractor activities at the work, task, or facility level; direct interaction with personnel at any level within the contractor organization; and direct, independent federal staff evaluation of physical conditions and contractor documentation.*

5. **What do you see as the relative risks and benefits of a systems-based oversight approach to contractor oversight?**

a. Risks

b. Benefits

Section I cont., page 3

6. **How much do you agree or disagree with the following statements about oversight approaches and a fully mature CAS?**

Oversight Approach

	Strongly agree	Somewhat agree	Undecided	Somewhat disagree	Strongly disagree
a. A systems-based oversight approach is more efficient (in terms of FTEs, costs, time) than a transactional-based approach for the federal government.	○	○	○	○	○
b. A systems-based oversight approach is more efficient (in terms of FTEs, costs, time) than a transactional-based approach for contractors.	○	○	○	○	○
c. A systems-based oversight approach requires less direct interaction with the contractor than a transactional-based approach.	○	○	○	○	○
d. The oversight approach using CAS information needs to be tailored to each site.	○	○	○	○	○
e. The oversight approach using CAS information needs to be tailored to each *functional area* at each site.	○	○	○	○	○

Fully Mature CAS

	Strongly agree	Somewhat agree	Undecided	Somewhat disagree	Strongly disagree
f. A Fully Mature CAS would allow for a more systems-based oversight approach.	○	○	○	○	○
g. A fully mature CAS would be very useful for contractor oversight.	○	○	○	○	○
h. A fully mature CAS would be very useful for contractor performance evaluation.	○	○	○	○	○
i. A fully mature CAS would be very useful for determining contractor award fee.	○	○	○	○	○
j. A fully mature CAS would be very useful for determining contract extensions.	○	○	○	○	○
k. A fully mature CAS provides valid and accurate information.	○	○	○	○	○

II. Field Office Oversight of CAS Implementation

7. **Are the following areas covered under the CAS at your site?**

	Yes, fully	Yes, partially	No	Don't know
a. mission activities				
b. infrastructure, operations, and maintenance				
c. construction projects				

8. **Do you have a point of contact at NNSA headquarters who can field questions, explain policy, or provide information about the following?**

	Yes, a consistent contact	Yes, but contact varies	No	Don't know
a. oversight of CAS implementation				
b. identifying risks				
c. assessing CAS maturity				
d. assessing contractor performance				
e. other (describe below)				

Other information you get from NNSA HQ point of contact.

f. **Please provide any additional comments you may have about the consistency of HQ contacts.**

9. **Do you have points of contact at other NNSA field offices who can field questions, explain policy, or provide information about other field offices' practices for the following?**

	Yes, a consistent contact	Yes, but contact varies	No	Don't know
a. oversight of CAS implementation				
b. identifying risks				
c. assessing CAS maturity				
d. assessing contractor performance				
e. other (describe below)				

Other information you get from other field office points of contact.

Section II cont., page 2

10. **What is the balance of responsibility between NNSA Headquarters (HQ) and the field office (FO) for oversight of the contractor's implementation of CAS?**

1. Entirely an HQ responsibility
2. More an HQ responsibility
3. Equally shared responsibility
4. More a FO responsibility
5. Entirely a FO responsibility
6. Don't know *(GO TO QUESTION 11)*

a. **Considering your response above, how did you determine the balance of responsibility between NNSA Headquarters (HQ) and the field office?**

11. **Do you have access to the same information on CAS performance as the contractor's management (e.g., access to underlying performance data rather than just dashboard summaries)?**

1. Yes *(GO TO QUESTION 12)*
2. No
3. Don't know *(GO TO QUESTION 12)*

a. **If no, what kinds of information do you *not* have access to?**

b. **If no, does your lack of access to this information hinder your ability to independently evaluate contractor performance?**

1. Yes
2. No *(GO TO QUESTION 12)*
3. Don't know *(GO TO QUESTION 12)*

c. **If yes, please describe how it affects your ability to independently evaluate contractor performance.**

12. **Have any of the following parties assessed the status of CAS implementation at your site?**

	Yes, and assessment is documented	Yes, but not documented	No	Don't know
a. NNSA Headquarters	☐	☐	☐	☐
b. Field office	☐	☐	☐	☐
c. Joint HQ/Field office assessment	☐	☐	☐	☐
d. Contractor self-assessment	☐	☐	☐	☐
e. External/third party entity	☐	☐	☐	☐

13. **How great a challenge, if at all, have the following factors been in overseeing the implementation of CAS at your site?**

	Very great challenge	Great challenge	Moderate challenge	Small challenge	Not a challenge	Don't know
a. need for clarity on how to implement NNSA's governance approach	☐	☐	☐	☐	☐	☐
b. need for additional polices/guidance	☐	☐	☐	☐	☐	☐
c. changes in oversight approach	☐	☐	☐	☐	☐	☐
d. need for clarity in expectations for field offices	☐	☐	☐	☐	☐	☐
e. need for clarity in roles and responsibilities for field office and NNSA HQ	☐	☐	☐	☐	☐	☐
f. communication barriers between field office and NNSA HQ	☐	☐	☐	☐	☐	☐
g. lack of staff (FTEs) to implement	☐	☐	☐	☐	☐	☐
h. skills mismatch/lack of subject matter experts to implement	☐	☐	☐	☐	☐	☐
i. need for training in how to implement	☐	☐	☐	☐	☐	☐
j. changes in organizational structure/NNSA reorganization	☐	☐	☐	☐	☐	☐
k. other (describe below)	☐	☐	☐	☐	☐	☐

Other challenge in overseeing the implementation of CAS at your site.	

III. Use of CAS Information for Federal Oversight and Determining Performance Award Fee

DOE Policy 226.1B indicates that effective assurance systems provide reasonable assurance that mission objectives are being accomplished without sacrificing adequate protection. Effectiveness can be described in terms of "maturity level," which can be characterized as follows:

Maturity Levels
Early use: process is defined but not implemented
Implemented: process is defined and implemented but does not facilitate management decisions
Effective: a defined, implemented process that facilitates management decisions
Predictive and responsive: a defined, implemented process that is predictive of issues that need to be addressed and focuses on continuous improvement
Not rated/present: CAS is not present or not yet initiated
Please consider these definitions of maturity in responding to the following questions.

14. **What is the overall level of maturity of your contractor's CAS for each of the following attributes, and how did you determine the maturity level of the attribute?**

a1. assessment process (self or third party)
1. ○ Early use
2. ○ Implemented
3. ○ Effective
4. ○ Predictive and responsive
5. ○ Not rated/present

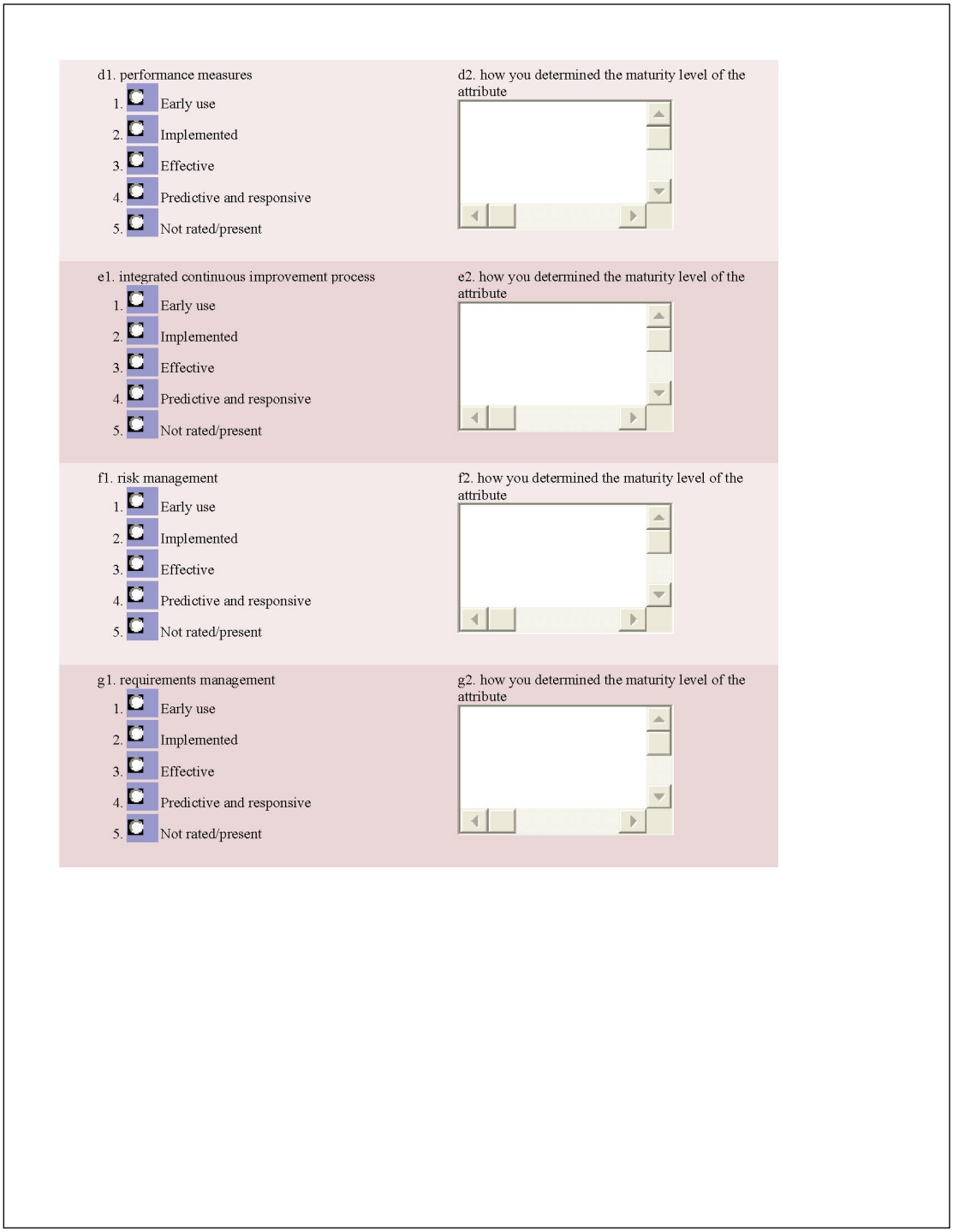
a2. how you determined the maturity level of the attribute

b1. operating experience (lessons learned) program
1. ○ Early use
2. ○ Implemented
3. ○ Effective
4. ○ Predictive and responsive
5. ○ Not rated/present

b2. how you determined the maturity level of the attribute

c1. issues and corrective action management system
1. ○ Early use
2. ○ Implemented
3. ○ Effective
4. ○ Predictive and responsive
5. ○ Not rated/present

c2. how you determined the maturity level of the attribute


d1. performance measures
1. Early use
2. Implemented
3. Effective
4. Predictive and responsive
5. Not rated/present
d2. how you determined the maturity level of the attribute
e1. integrated continuous improvement process
1. Early use
2. Implemented
3. Effective
4. Predictive and responsive
5. Not rated/present
e2. how you determined the maturity level of the attribute
f1. risk management
1. Early use
2. Implemented
3. Effective
4. Predictive and responsive
5. Not rated/present
f2. how you determined the maturity level of the attribute
g1. requirements management
1. Early use
2. Implemented
3. Effective
4. Predictive and responsive
5. Not rated/present
g2. how you determined the maturity level of the attribute

Section III cont., page 2

15. **What is the overall level of maturity of your contractor's CAS for each of the following functional areas, and how did you determine the maturity level of the functional area?**

a1. environment, safety, and health
1. Early use
2. Implemented
3. Effective
4. Predictive and responsive
5. Not rated/present

a2. how you determined the maturity level of the functional area

b1. safeguards and security
1. Early use
2. Implemented
3. Effective
4. Predictive and responsive
5. Not rated/present

b2. how you determined the maturity level of the functional area

c1. mission
1. Early use
2. Implemented
3. Effective
4. Predictive and responsive
5. Not rated/present

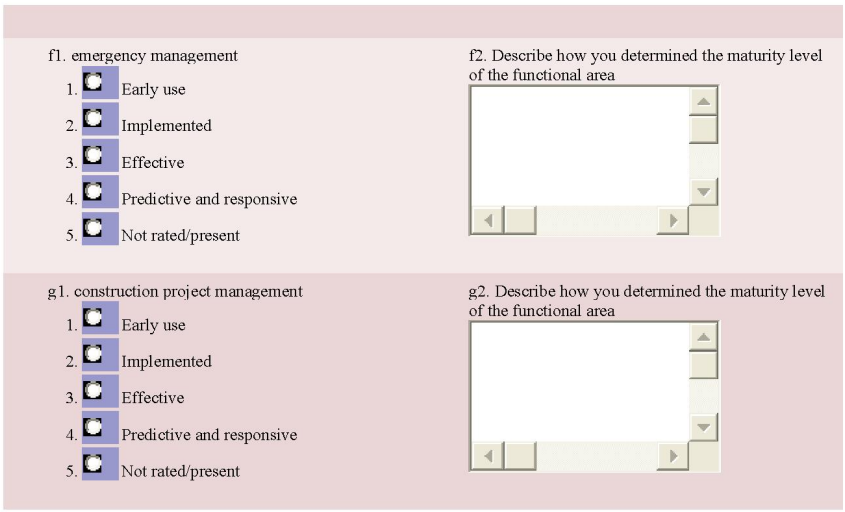
c2. how you determined the maturity level of the functional area

d1. business operations
1. Early use
2. Implemented
3. Effective
4. Predictive and responsive
5. Not rated/present

d2. how you determined the maturity level of the functional area

e1. infrastructure
1. Early use
2. Implemented
3. Effective
4. Predictive and responsive
5. Not rated/present

e2. how you determined the maturity level of the functional area


f1. emergency management
1. Early use
2. Implemented
3. Effective
4. Predictive and responsive
5. Not rated/present
f2. Describe how you determined the maturity level of the functional area
g1. construction project management
1. Early use
2. Implemented
3. Effective
4. Predictive and responsive
5. Not rated/present
g2. Describe how you determined the maturity level of the functional area

Section III cont., page 3

16. **What steps, if any, is your field office taking to ensure your contractor's CAS is continuing to mature?**

17. **Does your field office assess the validity and accuracy of information from CAS that you use for oversight and performance evaluation?**

1. Yes
2. No *(Click to go to next question)*
3. Don't know *(Click to go to next question)*

a. **If yes, describe how your field office assesses the validity and accuracy of information from CAS, including information on the depth/quality of the assessment given staff time and capabilities to do so.**

Risk is the possibility that an event will occur and adversely affect the achievement of objectives. Federal internal control standards state that risk assessment should be undertaken to identify and analyze relevant risks associated with achieving objectives and to form a basis for determining how risks should be managed.

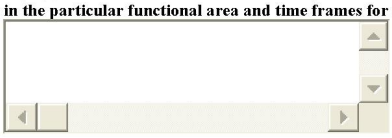
18. **What is your field office's determination of the level of risk inherent in the contractor's activities in the following functional areas?**

	High	Moderate	Low	Not determined
a. environment, safety, and health				
b. safeguards and security				
c. mission				
d. business operations				
e. infrastructure				
f. emergency management				
g. construction project management				

19. **If you checked "not determined" to any of the above, does your field office have plans to determine the level of risk in the particular functional area?**

1. Yes
2. No *(GO TO QUESTION 20)*

a. **If yes, please describe the areas for which plan to determine the level of risk in the particular functional area and time frames for the assessment.**



Section III cont., page 4

20. **In general, what is the demonstrated level of contractor performance for the following functional areas?**

	Outstanding	Very good	Good	Satisfactory	Unsatisfactory	Not determined
a. environment, safety, and health	○	○	○	○	○	○
b. safeguards and security	○	○	○	○	○	○
c. mission	○	○	○	○	○	○
d. business operations	○	○	○	○	○	○
e. infrastructure	○	○	○	○	○	○
f. emergency management	○	○	○	○	○	○
g. construction project management	○	○	○	○	○	○

Per DOE order 226.1B and NAP-21, responsible oversight organizations will tailor the mix of transaction-based and systems-based oversight based on the degree of risk, level of CAS maturity, and demonstrated performance.

21. **Considering the degree of risk, maturity of your contractor's CAS, and demonstrated performance, what is your current mix of transaction-based and systems-based oversight in each of the following functional areas?**

	Significantly more transaction-based oversight	Somewhat more transaction-based oversight	About an equal mix of both	Somewhat more systems-based oversight	Significantly more systems-based oversight	Don't know
a. environment, safety, and health	○	○	○	○	○	○
b. safeguards and security	○	○	○	○	○	○
c. mission	○	○	○	○	○	○
d. business operations	○	○	○	○	○	○
e. infrastructure	○	○	○	○	○	○
f. emergency management	○	○	○	○	○	○
g. construction project management	○	○	○	○	○	○

22. **Please explain why you are using the current mix of transaction-based and systems-based oversight noted above.**

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23. **Compared to information from other oversight activities, how much does your field office use information from the CAS to ensure objectives in the following functional areas are met?**
Please (1) explain why you use CAS information more or less than other oversight information for this area and (2) identify the other oversight information you use for this area.

a1. environment, safety, and health

1. Use CAS information significantly more than other oversight information
2. Use CAS information somewhat more than other oversight information
3. Use both about the same amount
4. Use CAS information somewhat less than other oversight information
5. Use CAS information significantly less than other oversight information
6. Don't know

a2. why you use CAS information more or less than other oversight information for this area and (2) the other oversight information you use for this area.

b1. safeguards and security

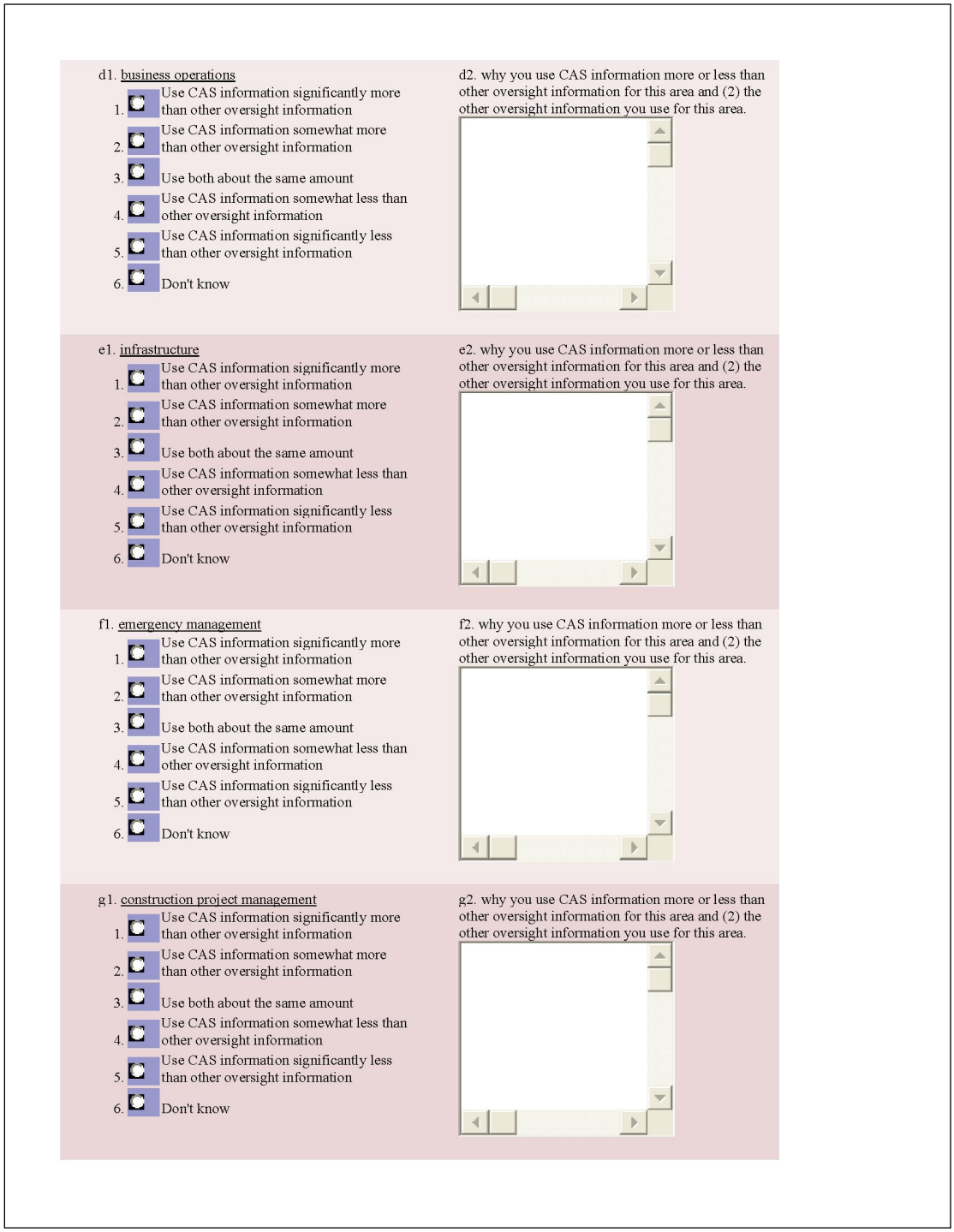
1. Use CAS information significantly more than other oversight information
2. Use CAS information somewhat more than other oversight information
3. Use both about the same amount
4. Use CAS information somewhat less than other oversight information
5. Use CAS information significantly less than other oversight information
6. Don't know

b2. why you use CAS information more or less than other oversight information for this area and (2) the other oversight information you use for this area.

c1. mission

1. Use CAS information significantly more than other oversight information
2. Use CAS information somewhat more than other oversight information
3. Use both about the same amount
4. Use CAS information somewhat less than other oversight information
5. Use CAS information significantly less than other oversight information
6. Don't know

c2. why you use CAS information more or less than other oversight information for this area and (2) the other oversight information you use for this area.


d1. business operations
1. Use CAS information significantly more than other oversight information
2. Use CAS information somewhat more than other oversight information
3. Use both about the same amount
4. Use CAS information somewhat less than other oversight information
5. Use CAS information significantly less than other oversight information
6. Don't know
d2. why you use CAS information more or less than other oversight information for this area and (2) the other oversight information you use for this area.
e1. infrastructure
1. Use CAS information significantly more than other oversight information
2. Use CAS information somewhat more than other oversight information
3. Use both about the same amount
4. Use CAS information somewhat less than other oversight information
5. Use CAS information significantly less than other oversight information
6. Don't know
e2. why you use CAS information more or less than other oversight information for this area and (2) the other oversight information you use for this area.
f1. emergency management
1. Use CAS information significantly more than other oversight information
2. Use CAS information somewhat more than other oversight information
3. Use both about the same amount
4. Use CAS information somewhat less than other oversight information
5. Use CAS information significantly less than other oversight information
6. Don't know
f2. why you use CAS information more or less than other oversight information for this area and (2) the other oversight information you use for this area.
g1. construction project management
1. Use CAS information significantly more than other oversight information
2. Use CAS information somewhat more than other oversight information
3. Use both about the same amount
4. Use CAS information somewhat less than other oversight information
5. Use CAS information significantly less than other oversight information
6. Don't know
g2. why you use CAS information more or less than other oversight information for this area and (2) the other oversight information you use for this area.

Section III cont., page 6

24. **Does your field office use information from CAS to prioritize the federal oversight resources included in your Site Integrated Assessment Plan (SIAP)?**

1. Yes
2. No *(GO TO QUESTION 25)*
3. Don't know *(GO TO QUESTION 25)*

a. **Describe how your field office has used information from CAS to prioritize oversight for the SIAP.**

25. **How much does your field office rely on its own risk assessment to inform the SIAP?**

1. Fully
2. Moderately
3. Not at all
4. NA/ did not prepare own risk assessment

a. **If you would like to comment on the use of your site's risk assessment to inform the SIAP, please do so below.**

Risk tolerance is the acceptable level of variation in performance relative to the achievement of objectives.

26. **Please explain your site contractor's level of risk tolerance and how, if at all, it affects your oversight approach.**

27. **Have any of the following occurred at your field office with respect to identification of risk?**

	No	Yes	Don't know
a. field office identified substantive risks that were not identified by the contractor	○	○	○
b. the contractor identified substantive risks not identified by the field office	○	○	○
c. others identified substantive risks that were not identified by the field office or the contractor	○	○	○

28. **If yes to any of the above, please explain.**

Section III cont., page 7

29. **How effective is your site contractor's self-identification, reporting, and correction of issues?**

	Very Effective	Moderately Effective	As effective as ineffective	Moderately ineffective	Very ineffective	Don't know
a. self-identification	☐	☐	☐	☐	☐	☐
b. self-reporting	☐	☐	☐	☐	☐	☐
c. response/correction	☐	☐	☐	☐	☐	☐

30. **Are there instances where your field office's oversight identified substantive problems that CAS should have identified but did not?**

1. ☐ Yes
2. ☐ No *(Click to go to next question)*
3. ☐ Don't know *(Click to go to next question)*

a. **If yes, please provide examples where substantive problems were or were not identified by the CAS.**

According to the FY 2013 NNSA Corporate Contractor Performance Evaluation Plan (CPEP) Evaluation Process Description Handbook, the National Nuclear Security Administration (NNSA) will complete, on a timely basis, written evaluations based on mission and operational perspectives of the M&Os performance while resolving any NNSA evaluations differences. The written evaluations inform fee determination and contract extension decisions.

31. **Does your field office have a role in informing the performance award fee determination or decision to exercise the option to extend the contract's term?**

1. ☐ Yes, formal role identified
2. ☐ Yes, informal role
3. ☐ No *(GO TO QUESTION 32)*
4. ☐ Don't know *(GO TO QUESTION 32)*

a. **If yes, please explain your role in the performance award fee and contract extension decisionmaking process.**

b. **If yes, compared to information from other oversight activities, how much does your field office use information from the CAS to inform performance award fee or contract term extension decisions for the following functional areas?**

	Use CAS information significantly more than other oversight information	Use CAS information somewhat more than other oversight information	Use both about the same amount	Use CAS information somewhat less than other oversight information	Use CAS information significantly less than other oversight information	Don't know
environment, safety, and health	☐	☐	☐	☐	☐	☐
safeguards and security	☐	☐	☐	☐	☐	☐
mission	☐	☐	☐	☐	☐	☐
business operations	☐	☐	☐	☐	☐	☐
infrastructure	☐	☐	☐	☐	☐	☐
emergency management	☐	☐	☐	☐	☐	☐
construction project management	☐	☐	☐	☐	☐	☐

32. **Has your field office evaluated the extent to which the performance objectives from the strategic PEP are reflected in your contractor's CAS?**

1. ☐ Yes, and objectives are reflected in CAS *(GO TO QUESTION 33)*
2. ☐ Yes, but objectives are not reflected in CAS
3. ☐ No
4. ☐ Don't know *(GO TO QUESTION 33)*

a. **If no, or measures are not reflected in CAS, please explain why not and whether and how this information would be useful.**

33. **Considering only the FY 13 contract performance period, compared to information from other oversight activities, how much did you rely on the contractor's annual self-assessment to inform decisions for the performance award fee or contract term extension in the following functional areas?**

	Use other oversight information significantly more than contractor self-assessment	Use other oversight information somewhat more than contractor self-assessment	Use both about the same amount	Use other oversight information somewhat less than contractor self-assessment	Use other oversight information significantly less than contractor self-assessment	Don't know
a. environment, safety, and health	☐	☐	☐	☐	☐	☐
b. safeguards and security	☐	☐	☐	☐	☐	☐
c. mission	☐	☐	☐	☐	☐	☐
d. business operations	☐	☐	☐	☐	☐	☐
e. infrastructure	☐	☐	☐	☐	☐	☐
f. emergency management	☐	☐	☐	☐	☐	☐
g. construction project management	☐	☐	☐	☐	☐	☐

34. **If you did not fully rely on the self-assessment, please explain why and describe the other sources of information you used instead.**

35. **Compared to the previous PEP process, how involved is your field office in the award fee/contract term extension determination under the new strategic PEP?**

1. ☐ Significantly more involved under new PEP
2. ☐ Somewhat more involved under new PEP
3. ☐ About the same involvement
4. ☐ Somewhat less involved under new PEP
5. ☐ Significantly less involved under new PEP

a. **Please explain why, and in what ways your field office is more/less involved under new strategic PEP.**

Section III cont., page 9

36. **Is the new strategic PEP process better, worse, or about the same as the previous PEP process in ensuring the following?**

	Significantly better	Somewhat better	About the same	Somewhat worse	Significantly worse	Don't know
a. transparency of the performance rating	○	○	○	○	○	○
b. accuracy of the performance rating	○	○	○	○	○	○
c. ability to determine the award fee/extension	○	○	○	○	○	○
d. ability to identify the most critical performance elements	○	○	○	○	○	○

37. **If you would like to comment on any aspects of the old or new strategic PEP process, please do so in the space below.**

38. **How useful is information from your contractor's CAS for federal decisionmaking in the following areas?**

	Very useful	Useful	Moderately useful	Somewhat useful	Not useful	Don't know
a. contractor oversight	○	○	○	○	○	○
b. contractor performance evaluation	○	○	○	○	○	○
c. determining contractor award fee	○	○	○	○	○	○
d. determining contract extensions	○	○	○	○	○	○
e. other (describe below)	○	○	○	○	○	○

Other area in which information from your contractor's CAS is useful for decisionmaking.

39. **If information from your contractor's CAS is not useful for decisionmaking in the above areas, please explain how it could be improved to better support decisionmaking.**

Section III cont., page 10

40. **How great a challenge, if at all, have the following factors been in using CAS information for oversight and performance evaluation?**

	Very great challenge	Great challenge	Moderate challenge	Small challenge	Not a challenge	Don't know
a. access to CAS information is restricted/not easy to understand	○	○	○	○	○	○
b. measures are confusing or constantly changing	○	○	○	○	○	○
c. can't track CAS measures for performance evaluation purposes	○	○	○	○	○	○
d. CAS information is not as important as other oversight information	○	○	○	○	○	○
e. need for clarity on how to implement NNSA's governance approach	○	○	○	○	○	○
f. need for additional polices/guidance	○	○	○	○	○	○
g. changes in oversight approach	○	○	○	○	○	○
h. need for clarity in expectations for field offices	○	○	○	○	○	○
i. uneven maturation/application of CAS in different functional areas	○	○	○	○	○	○

	Very great challenge	Great challenge	Moderate challenge	Small challenge	Not a challenge	Don't know
j. need for clarity regarding roles and responsibilities for field office and NNSA HQ	○	○	○	○	○	○
k. communication barriers between field office and NNSA HQ	○	○	○	○	○	○
l. lack of staff (FTEs) to implement	○	○	○	○	○	○
m. skills mismatch/lack of subject matter experts to implement	○	○	○	○	○	○
n. downsizing/attrition	○	○	○	○	○	○
o. need for training in how to implement	○	○	○	○	○	○
p. changes in organizational structure/NNSA reorganization	○	○	○	○	○	○
q. other (describe below)	○	○	○	○	○	○

Other challenge in using CAS information for oversight and performance evaluation.	

41. **How much input, if any, does your field office have in specifying which CAS information is tracked for your use in the performance evaluation process?**

1. Substantial
2. Some
3. None *(GO TO QUESTION 42)*
4. Don't know *(GO TO QUESTION 42)*

a. **Please describe the type of input your field office has in specifying which CAS information is tracked for your use in the performance evaluation process.**

IV. Staffing and Training

42. **Has the number of on-board staff responsible for oversight increased, decreased, or stayed about the same at your site since 2004?**

1. ☐ Significantly increased
2. ☐ Somewhat increased
3. ☐ Stayed about the same *(GO TO QUESTION 44)*
4. ☐ Somewhat decreased
5. ☐ Significantly decreased
6. ☐ Don't know

43. **If you have experienced changes (an increase or decrease) in staffing levels, are they due to any of the following?**

	Yes	No	Don't know
a. reduction in authorized FTE levels	☐	☐	☐
b. use of CAS (requiring fewer oversight staff)	☐	☐	☐
c. attrition	☐	☐	☐
d. hiring freeze/inability to hire	☐	☐	☐
e. budget	☐	☐	☐
f. other (describe below)	☐	☐	☐

Other reason for staffing change. _____

44. **Are your current staffing levels above, below, or about the right level for your site's current contractor oversight needs?**

1. ☐ Significantly above what is needed
2. ☐ Somewhat above what is needed
3. ☐ About right
4. ☐ Somewhat below what is needed
5. ☐ Significantly below what is needed
6. ☐ Don't know

45. **Based on human capital planning and other data, do you expect the level of oversight staff to increase, decrease, or stay about the same at your site over the next 5 years?**

1. ☐ Significantly increase
2. ☐ Somewhat increase
3. ☐ Stay about the same
4. ☐ Somewhat decrease

5. Significantly decrease
6. Don't know

46. **Will your anticipated staffing levels over the next 5 years be above, below, or about the right level for your site's expected contractor oversight needs?**

1. Significantly above what is needed
2. Somewhat above what is needed
3. About right
4. Somewhat below what is needed
5. Significantly below what is needed
6. Don't know

47. **If you would like to provide additional information about staffing levels and their effect on contractor oversight, please do so below.**

48. **Has your field office identified staffing or expertise shortages in any of the following areas?**

	Yes, significant shortage	Yes, moderate shortage	Yes, minor shortage	No shortage/ not identified	Don't know
a. environment, safety, and health					
b. safeguards and security					
c. mission					
d. business operations					
e. infrastructure					
f. emergency management					
g. construction project management					
h. risk assessment					
i. contractor performance evaluation					
j. assessing CAS maturity					

Section IV cont., page 2

49. **How much do you agree or disagree with the following views about using a capabilities-based approach to staffing, in which certain specialist occupations would be shared across sites?**

	Strongly agree	Somewhat agree	Undecided	Somewhat disagree	Strongly disagree
a. it would reduce the number of staff needed at the site	○	○	○	○	○
b. enables right person, right place, right time staffing	○	○	○	○	○
c. sites are too unique for this to work effectively	○	○	○	○	○
d. travel budgets do not support it	○	○	○	○	○
e. would be difficult for shared staff to maintain professional certifications	○	○	○	○	○
f. other (describe below)	○	○	○	○	○

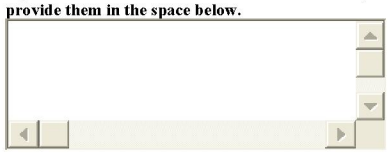
Other pro/con in using a capabilities-based approach to staffing

50. **How great a challenge, if at all, are the following personnel and training related issues in your field office's ability to conduct oversight and use CAS information?**

	Very great challenge	Great challenge	Moderate challenge	Small challenge	Not a challenge	Don't know
a. lack of strategic planning for conducting oversight	○	○	○	○	○	○
b. lack of information on staffing requirements	○	○	○	○	○	○
c. insufficient resources/time to evaluate staffing requirements	○	○	○	○	○	○
d. funding for training is not a priority	○	○	○	○	○	○
e. unclear what training is needed	○	○	○	○	○	○
f. downsizing/attrition	○	○	○	○	○	○
g. ability to attract and retain qualified personnel	○	○	○	○	○	○
h. need for clarity in the definitions/requirements for skill set needed to oversee contractor performance	○	○	○	○	○	○
i. other (describe below)	○	○	○	○	○	○

Other challenge in personnel and training related issues.

51. **If you have additional comments about human capital and training issues, please provide them in the space below.**



Comments & Survey Completion

52. **If you would like to clarify any of your responses, or provide additional comments about CAS, contractor oversight, or related topics, please provide them in the space below.**

53. **If you have completed the questions in this survey, please move the check to the "Completed" button below.**
Your answers will not be used until you have checked "Completed."

1. Completed
2. Not completed

<--Before you click the Exit button below to log out, you may view and print a summary of all the responses you made by clicking on the "View and print a summary of your responses" link in the menu to the left.
Thank you for participating in this survey.

Appendix IV: GAO Contact and Staff Acknowledgments

GAO Contact

David C. Trimble, (202) 512-3841 or trimbled@gao.gov

Staff Acknowledgments

In addition to the individual named above, Allison B. Bawden, Assistant Director; David Bennett; Richard Burkard; Joanna Chan; John Delicath; Christopher Pacheco; Dan Royer; Rebecca Shea; Kiki Theodoropoulos; and Rajneesh Verma made key contributions to this report.

Appendix V: Accessible Data

Data Table for Figure 3: Trend in National Nuclear Security Administration (NNSA) M&O Contractor's Available and Earned Fees for Fiscal Years 2009 to 2013

Dollars (in millions)

Fiscal year	Combined available fee	Combined earned fee
2009	247.94	220.7
2010	259.99	231.17
2011	267	241.53
2012	270	207.62
2013	276.96	211.8

Source: GAO analysis of National Nuclear Security Administration data. GAO-15-216.

Notes: Dollar amounts are adjusted for inflation into constant 2014 dollars. Most recent data available from all sites with full available and earned fees was in fiscal year 2013. We did not include data from fiscal year 2014 because at two sites there was only partial fee information available due to a contractual change.

Data Tables for Figure 4: Field Offices' Assessments of Risk and CAS Maturity for Different Activities and Reported Use of Transaction- Versus Systems-Based Oversight in These Areas

Field offices

Oversight mix	Significantly or somewhat more systems-based oversight	About an equal mix of both	Significantly or somewhat more transaction-based oversight	Don't know
Business operations	7	0	0	0
Construction project management [Note B]	3	0	3	1
Emergency management	3	3	1	0
Environment, safety, and health	3	1	3	0
Infrastructure	5	1	1	0
Mission	3	3	1	0
Safeguards and security	3	1	3	0

Risk level	Low risk	Moderate risk	High risk	Not determined
Business operations	3	4	0	1
Construction project management [Note B]	0	4	2	1
Emergency management	1	4	2	0
Environment, safety, and health	1	5	1	0
Infrastructure	0	5	2	0
Mission	1	3	3	0
Safeguards and security	0	5	2	0

Contractor assurance systems (CAS) maturity [Note A]	High CAS maturity [Note A] (effective, predictive, and/or responsive)	Moderate CAS maturity [Note A] (implemented)	Low CAS maturity [Note A] (early use)	Not rated/present
Business operations	6	0	1	0
Construction project management [Note B]	1	4	0	2
Emergency management	6	1	0	0
Environment, safety, and health	4	2	1	0
Infrastructure	4	2	1	0
Mission	4	1	2	0
Safeguards and security	5	2	0	0

Source: GAO analysis of National Nuclear Security Administration field offices. GAO-15-216.

[a]In defining CAS maturity, we instructed field offices to use the following definitions: Early use—the process is defined but not implemented; Implemented—the process is defined and implemented but does not facilitate management decisions; Effective—a defined, implemented process that facilitates management decisions; and Predictive and Responsive—a defined, implemented process that is predictive of issues that need to be addressed and focuses on continuous improvement. This scale was developed based on interviews we conducted with field office officials at two sites and draws on a scale developed by the Capability Maturity Model Integration (CMMI) Institute, which is affiliated with Carnegie Mellon University.

[b]One field office responded “don’t know” for construction project management oversight mix and level of risk, and two field offices responded “don’t know” for construction project management CAS maturity, so fewer than seven responses for this area are reflected in this figure.

Data Table for Figure 5: Extent to Which National Nuclear Security Administration Field Offices Report Using Information from Contractor Assurance Systems (CAS) for Evaluating M&O Contractors’ Performance, by Activity

Field offices

Performance evaluation	Use contractor assurance systems (CAS) information, significantly or somewhat more than other information for performance evaluation	Use CAS information about the same as other information for performance evaluation	Use CAs information significantly or somewhat less than other information for performance evaluation
Business operations	3	3	1
Construction project management [Note A]	0	3	3
Emergency management	1	4	2
Environment, safety, and health	1	4	2
Infrastructure	2	4	1
Mission	0	6	1
Safeguards and security	0	5	2

Source: GAO survey of National Nuclear Security Administration office. GAO-15-216.

[a]One field office responded “don’t know” for construction project management, so fewer than seven responses for this area are reflected in this figure.

Data Table for Figure 6: Number of National Nuclear Security Administration Staff from Fiscal Year 2008 to Fiscal Year 2014

Fiscal year	NNSA staff
2008	1,862
2009	1,846
2010	1,972
2011	1,896
2012	1,844
2013	1,694
2014	1,587

Source: GAO analysis of NNSA staffing data. GAO-15-216.

Note: This includes federal staff at NNSA headquarters and field offices but not federal staff in the Office of Naval Reactors or Office of Security Transportation Asset.