



October 2021

# DEPARTMENT OF ENERGY CONTRACTING

## NNSA Has Taken Steps to Improve Its Work Authorization Process, but Challenges Remain



A Century of Non-Partisan Fact-Based Work

# GAO@100 Highlights

Highlights of [GAO-22-103948](#), a report to congressional requesters

## Why GAO Did This Study

NNSA relies on seven M&O contractors to manage and operate its eight laboratory and production sites. NNSA uses documents called WAs to direct the work of its contractors. NNSA's program offices collectively issued on average 94 WAs per fiscal year from 2018 to 2020. In 1990, GAO designated the Department of Energy's (DOE) contract management as a high-risk area and continues to identify ongoing challenges with NNSA's management of its contractors.

As part of an effort to understand the status of NNSA's actions to address contract management challenges, GAO was asked to review NNSA's work authorization process and documentation. This report examines NNSA's (1) efforts to improve its work authorization process, and (2) use of WAs in its contractor performance evaluation process.

GAO reviewed relevant laws and DOE and NNSA policy and guidance on WAs; analyzed a nongeneralizable sample of WAs for fiscal years 2019 and 2020; analyzed survey responses from all relevant NNSA program and field offices and contractor sites; reviewed contractor performance documentation; and interviewed agency officials.

## What GAO Recommends

GAO is making two recommendations, including that NNSA establish a required WA schedule to ensure finalization by the start of the fiscal year. NNSA concurred in principle with the recommendations and stated that they have been addressed. GAO believes that NNSA needs to take additional actions to fully address them, as discussed in the report.

View [GAO-22-103948](#). For more information, contact Allison Bowden at (202) 512-3841 or [bawdena@gao.gov](mailto:bawdena@gao.gov).

October 2021

## DEPARTMENT OF ENERGY CONTRACTING

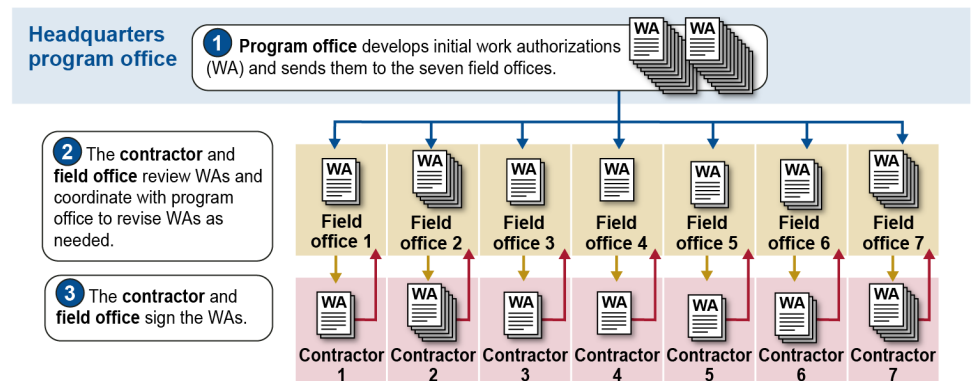
### NNSA Has Taken Steps to Improve Its Work Authorization Process, but Challenges Remain

## What GAO Found

The National Nuclear Security Administration (NNSA) has taken steps to improve its process for developing, reviewing, and issuing work authorizations (WA) for its management and operating (M&O) contractors. Such authorizations specify the activities to be conducted in a given fiscal year by the contractors that operate NNSA's sites (see figure). However, NNSA continues to face challenges issuing WAs before the start of the fiscal year, as generally required by NNSA's directive on WAs.

As part of its efforts to improve the agency's WA process, NNSA convened an internal working group in 2017 and 2018 to review the process. In October 2018, the working group recommended that NNSA's program offices submit draft WAs for review by August 15 each year. This recommendation was intended to ensure that field-based contracting officers and M&O contractor representatives finalized and issued WAs by the start of each fiscal year. However, NNSA continued to experience delays in issuing WAs by the start of fiscal year 2020, in part because NNSA does not have a schedule with required deadlines for review and revisions of draft WAs. Contractors that begin work without a WA in place by the start of the fiscal year risk incurring unallowable costs. Further, delays in issuing WAs may require duplicative efforts, such as the need to create interim "stopgap" WAs.

#### NNSA Work Authorization Development and Approval Process



Source: GAO analysis of National Nuclear Security Administration (NNSA) documentation. | GAO-22-103948

According to NNSA officials and M&O contractor representatives, WAs are an input for setting contractor performance expectations against which to monitor. However, when GAO reviewed performance evaluation reports for each contractor for fiscal years 2019 and 2020, GAO found that the reports did not clearly reference the performance expectations contained in WAs. NNSA officials confirmed that performance expectations contained in WAs cannot generally be traced to contractor's performance evaluation reports. This lack of traceability occurred in part because NNSA does not have clearly documented procedures specifying how officials should collect and use performance information, including from WAs, for evaluating contractor performance. This issue is similar to one on which GAO previously reported in February 2019 and made a recommendation for NNSA to develop such documented procedures. NNSA concurred with the recommendation but has not fully implemented it. GAO continues to believe that improving the ability to trace performance expectations to performance ratings would enable NNSA to more consistently evaluate contractor performance.

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## Abbreviations

CPEP	Corporate Performance Evaluation Process
DEAR	Department of Energy Acquisition Regulation
DOE	Department of Energy
FAR	Federal Acquisition Regulation
FY	fiscal year
IFR	interim feedback report
IP	implementation plan
M&O	management and operating
NA-10	Office of Defense Programs
NA-20	Office of Defense Nuclear Nonproliferation
NA-30	Office of Naval Reactors
NA-40	Office of Emergency Operations
NA-50	Office of Safety, Infrastructure, and Operations
NA-70	Office of Defense Nuclear Security
NA-80	Office of Counterterrorism and Counterproliferation
NA-APM	Office of Acquisition and Project Management
NA-IM	Office of Information Management
NA-MB	Office of Management and Budget
NNSA	National Nuclear Security Administration
STRIPES	Strategic Integrated Procurement Enterprise System
WA	work authorization

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October 27, 2021

### Congressional Requesters

The Department of Energy (DOE) is one of the largest civilian contracting agencies in the federal government. In fiscal year 2020, DOE obligated the majority of its funds to contracts, including those to manage and operate its scientific laboratories and engineering and production facilities, conduct environmental cleanup, and construct facilities. The National Nuclear Security Administration (NNSA) is a separately organized agency within DOE that is responsible for the safety, security, and reliability of the U.S. nuclear weapons stockpile.<sup>1</sup> To carry out its missions, NNSA relies on seven management and operating (M&O) contractors to manage and operate its eight laboratory and production sites.<sup>2</sup> According to officials from NNSA's Office of Management and Budget, NNSA obligated \$16.5 billion in fiscal year 2020, with \$14.6 billion (or about 88 percent) obligated for M&O contracts.

To direct the work of its M&O contractors, NNSA uses work authorizations (WA) and their associated implementation plans (IP).<sup>3</sup> Specifically, WAs task the contractor with the individual work activities to be executed in a given fiscal year and within the overall scope of work of the multiyear M&O contract. According to DOE acquisition regulations, NNSA must issue WAs to contractors to control individual work activities performed within the scope of work and prior to the commencement of the work and incurrence of costs. In 2017, NNSA issued a directive establishing its current WA requirements, including that WAs must be

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<sup>1</sup>NNSA's missions include: (1) enhancing national security through the military application of nuclear energy; (2) maintaining and modernizing infrastructure for the U.S. nuclear weapons stockpile; (3) supporting the nation's nuclear nonproliferation efforts; and (4) providing nuclear propulsion systems for the U.S. Navy.

<sup>2</sup>M&O contracts are agreements under which the government contracts for the operation, maintenance, or support, on its behalf, of government-owned or government-controlled research, development, special production, or testing establishments wholly or principally devoted to one or more of the major programs of the contracting agency. 48 C.F.R. § 17.601.

<sup>3</sup>WAs are generally short documents limited to a couple of pages that contain budgetary information for the work being authorized, while IPs are longer, more detailed documents that contain information about the work to be completed and how that work will be evaluated. For the purposes of this report, we refer to WAs and their associated IPs collectively as "work authorizations" or "WAs" unless otherwise specified.

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approved and issued to the contractor by the start of the fiscal year or prior to commencing any new work after the fiscal year begins.<sup>4</sup> Further, because WAs provide detailed information about a contractor's expected scope of work for the fiscal year, as well as performance expectations, they provide information useful for NNSA's end-of-year contractor performance evaluation process. NNSA's offices collectively issued an average of 94 WAs annually in fiscal years 2018-2020.<sup>5</sup>

In 1990, GAO designated DOE's contract management as a high-risk area because DOE's record of inadequate management of contractors left the agency vulnerable to waste, fraud, abuse, and mismanagement. Although DOE has made progress in a number of areas in the 3 decades since its original high-risk designation, DOE's contract management—specifically contract management at NNSA—remains on GAO's High-Risk List.<sup>6</sup> In addition, congressionally mandated panels and commissions have identified ongoing challenges involving NNSA's

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<sup>4</sup>NNSA, *Work Authorizations*, Supplemental Directive 412.1 (Washington, D.C.: Jan. 18, 2017). For the purposes of this report, we use the term "directive" to refer to NNSA supplemental directives, policies, advance change directives, and business operating procedures. See NNSA, *Directives Management*, Supplemental Directive 251.1B (Washington, D.C.: Oct. 26, 2020).

<sup>5</sup>Along with NNSA's program and field offices, NNSA's Office of Acquisition and Project Management and Office of Management and Budget also have roles and responsibilities in the WA process. In addition, NNSA also issues WAs to contractors at sites overseen by other entities within DOE, such as the Office of Science, and in some cases other entities within DOE issue WAs to the M&O contractors at sites overseen by NNSA. However, we focused the scope of this report on the WAs and IPs NNSA issued to M&O contractors at sites overseen by NNSA field offices.

<sup>6</sup>GAO, *High-Risk Series: Dedicated Leadership Needed to Address Limited Progress in Most High-Risk Areas*, [GAO-21-119SP](#) (Washington, D.C.: Mar. 2, 2021). GAO's High-Risk List highlights government operations with greater vulnerabilities to fraud, waste, abuse, and mismanagement, or that are in need of transformation to address economy, efficiency, or effectiveness challenges. In January 2009, recognizing the progress at DOE's Office of Science, we narrowed the focus of DOE's high-risk designation to the National Nuclear Security Administration and the Office of Environmental Management. See GAO, *High-Risk Series: An Update*, [GAO-09-271](#) (Washington, D.C.: Jan. 22, 2009).

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management of its contractors, including that some of NNSA's process and requirements are perceived as burdensome by contractors.<sup>7</sup>

As part of a broader effort to understand the status of NNSA's efforts to address contract management challenges, you asked that we review NNSA's WA process and associated documents.<sup>8</sup> This report examines (1) NNSA's efforts to improve its WA process, and (2) the extent to which NNSA uses WAs in its contractor performance evaluation process.

To examine NNSA's efforts to improve its WA process, we reviewed relevant documents, interviewed agency officials, surveyed 21 NNSA offices and contractors, and examined a nongeneralizable sample of WAs. Specifically, we reviewed agency documentation on its WA process and interviewed officials from the agency's Office of Acquisition and Project Management (NA-APM) and Office of Management and Budget. We also solicited documentation on WAs from officials at NNSA's program and field offices, as well as from representatives of NNSA's M&O contractors. These officials and representatives collectively represent seven program offices, seven field offices, and seven contractors. They comprise all the NNSA program offices that issue WAs to NNSA's contractors, all the field offices that are generally co-located with and oversee these contractors, and all the M&O contractors that perform the work at eight sites.<sup>9</sup>

We surveyed the combined 21 offices and contractors to solicit their perspectives on the WA process and the quality of the content of the WAs, primarily focusing on the WA cycle for fiscal year 2020. We also

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<sup>7</sup>Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise, *A New Foundation for the Nuclear Enterprise* (Washington, D.C.: November 2014); Commission to Review the Effectiveness of the National Energy Laboratories, *Securing America's Future: Realizing the Potential of the Department of Energy's National Laboratories, Volume 1: Executive Report* (Washington, D.C.: October 2015); National Academies of Sciences, Engineering, and Medicine and the National Academy of Public Administration, *Report 4 on Tracking and Assessing Governance and Management Reform in the Nuclear Security Enterprise* (Washington, D.C.: 2020).

<sup>8</sup>For examples of other work undertaken as part of this effort, see GAO, *Contractor Oversight: Information on the National Nuclear Security Administration's Report on Burdensome Regulatory Requirements*, [GAO-21-496R](#) (Washington, D.C.: June 16, 2021); and *Nuclear Security Enterprise: NNSA's Management of Data Calls to Contractors*, [GAO-19-286R](#) (Washington, D.C.: Feb. 26, 2019).

<sup>9</sup>The M&O contractors that we obtained information from were those managing and operating the NNSA sites during the period of 2017-2021. See figure 1 for more details.



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selected a nongeneralizable sample of WAs for fiscal years 2019 and 2020—the 2 most recent fiscal years with finalized WAs at the time of our review—and compared them with requirements contained in NNSA’s directive on WAs.<sup>10</sup> For example, we assessed whether each WA was issued by the start of the fiscal year and whether each stakeholder’s signature was documented on the WA, consistent with NNSA’s directive on WAs. We verified through NNSA’s program offices that we identified a complete set of WAs for fiscal years 2019 and 2020 from which to select our sample.

To examine NNSA’s use of WAs in its contractor performance evaluation process, we reviewed documents associated with contractor performance. Specifically, we reviewed NNSA’s contractor performance evaluation guidance for fiscal year 2020, as well as the fiscal year 2019 and 2020 performance evaluation and measurement plans, interim feedback reports, and performance evaluation reports for each of the seven contractors. We reviewed the performance evaluation and measurement plans to determine whether these plans provided additional guidance on how to use WAs for evaluating contractor performance. We evaluated the performance evaluation reports for references to WAs—and performance measures contained within them—to determine if performance evaluations could be traced back to information in the WAs. We also reviewed NNSA’s documentation that went into the fiscal year 2019 and 2020 final performance reviews for one randomly selected

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<sup>10</sup>Each program office labels and organizes how it issues its respective WAs differently. We selected a nongeneralizable stratified and intense case sample based on those differences. Specifically, we selected 14 of 97 WAs from fiscal year 2019 associated with 32 of 54 IPs from fiscal year 2019, and 14 of 95 WAs from fiscal year 2020 associated with 30 of 51 IPs from fiscal year 2020. Because we used a nongeneralizable sample, our findings cannot be used to make inferences about other WAs. See appendix II for graphics depicting how each program office organizes its WAs. NNSA, *Work Authorizations*, Supplemental Directive 412.1 (Washington, D.C.: Jan. 18, 2017).

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contractor. Finally, we reviewed our most recent prior report on NNSA's performance evaluation process for M&O contractors.<sup>11</sup>

For further information about our objectives, scope, and methodology, see appendix I.

We conducted this performance audit from November 2019 to October 2021 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.

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## Background

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### NNSA's Organization

NNSA's mission activities are managed by its headquarters-based program offices. See table 1 for a list of NNSA's program offices that issue WAs.

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<sup>11</sup>GAO, *Department of Energy: Performance Evaluations Could Better Assess Management and Operating Contractor Costs*, [GAO-19-5](#) (Washington, D.C.: Feb. 26, 2019). In this report we reviewed how DOE offices evaluated M&O contractor performance in fiscal years 2006 through 2016. We found that NNSA had not clearly documented how performance information is to be collected and used to make rating determinations. As a result, we recommended that NNSA develop and document clear procedures for implementing its contractor performance evaluation process, specifying the process for collecting contractor performance information and describing how officials are to ensure this information can be traced to rating determinations. DOE concurred with the recommendation, as discussed later in this report, but the agency has not yet implemented it.

**Table 1: NNSA Program Offices That Issue Work Authorizations and Their Agency Roles and Responsibilities**

Office (office number)	Roles and responsibilities
<b>Defense Programs (NA-10)</b>	Ensures that the U.S. has a safe, secure, and reliable nuclear weapons stockpile.
<b>Defense Nuclear Nonproliferation (NA-20)</b>	Works to prevent state and non-state actors from developing nuclear weapons or acquiring nuclear or radiological materials, equipment, technology, and expertise.
<b>Emergency Operations (NA-40)</b>	Leads the Department of Energy’s response for all-hazards events and continuity operations.
<b>Safety, Infrastructure, and Operations (NA-50)</b>	Develops and executes infrastructure investment, maintenance, safety, and operations programs and policies.
<b>Defense Nuclear Security (NA-70)</b>	Maintains security across all NNSA sites and facilities.
<b>Counterterrorism and Counterproliferation (NA-80)</b>	Counters threats of stolen or misplaced radioactive materials, a nuclear weapon out of the control of a nation-state, or an improvised nuclear device.

Source: National Nuclear Security Administration (NNSA). | GAO-22-103948

In addition to program offices, there are several NNSA headquarters-based functional offices. See table 2 for a list of selected NNSA functional offices that have roles and responsibilities in the WA process.

**Table 2: Selected NNSA Functional Offices and Their Agency Roles and Responsibilities**

Office	Roles and responsibilities
<b>Acquisition and Project Management (NA-APM)</b>	Focuses on construction project delivery and contract oversight, and is responsible for ensuring that NNSA implements acquisition and project management policies and regulations.
<b>Information Management and Chief Information Officer (NA-IM)</b>	Oversees information technology, information management, and cybersecurity.
<b>Management and Budget (NA-MB)</b>	Provides NNSA with administrative, human resources, and financial support.

Source: National Nuclear Security Administration (NNSA). | GAO-22-103948

NNSA’s missions are largely executed at its eight contractor managed and operated sites:

- Three national security laboratories where nuclear weapons are designed and developed: Lawrence Livermore National Laboratory in

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California, Los Alamos National Laboratory in New Mexico, and Sandia National Laboratories in New Mexico and other locations.

- Five nuclear weapons production facilities: The Pantex Plant in Texas, the Y-12 National Security Complex in Tennessee, the Kansas City National Security Campus in Missouri, the Savannah River Site in South Carolina, and the Nevada National Security Site.

NNSA has seven field offices across the country that are responsible for overseeing these sites, including ensuring that the contractors comply with their contracts.<sup>12</sup> The field offices are primarily co-located with the contractors. To provide oversight of the contractors, each field office employs contracting officers and related subject matter experts.<sup>13</sup>

According to DOE, the use of M&O contracts is supported by the underlying principle that the federal government employs highly capable companies and educational institutions to manage and operate government-owned scientific, engineering, and production facilities because these companies and educational institutions have greater flexibility in bringing scientific and technical skills to bear than the government. As we have previously reported, an M&O contract is characterized by, among other things, a close relationship between the government and the contractor for conducting work of a long-term and continuing nature.<sup>14</sup>

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<sup>12</sup>Two NNSA sites—the Pantex Plant and the Y-12 National Security Complex—are managed and operated by one contractor and overseen by a single field office. See figure 1.

<sup>13</sup>DOE, *Appointment of Contracting Officers and Contracting Officer Representatives*, DOE O 541.1C (Washington, D.C.: Jan. 17, 2017). The order defines contracting officers as agency officials with the authority to enter into, administer, and/or terminate contracts, federal financial assistance, and other transactions, and make related determinations and findings. This includes certain authorized representatives of the contracting officer acting within the limits of their authority as delegated by the contracting officer.

<sup>14</sup>GAO, *National Nuclear Security Administration: Reports on the Benefits and Costs of Competing Management and Operating Contracts Need to Be Clearer and More Complete*, [GAO-15-331](#) (Washington, D.C.: Mar. 23, 2015).

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**Management and Operating (M&O) Contracts in the Federal Acquisition Regulation (FAR)**

The FAR defines M&O contracts as agreements under which the government contracts for the operation, maintenance, or support, on its behalf, of a government-owned or government-controlled research, development, special production, or testing establishment, wholly or principally devoted to one or more major programs of the contracting agency.

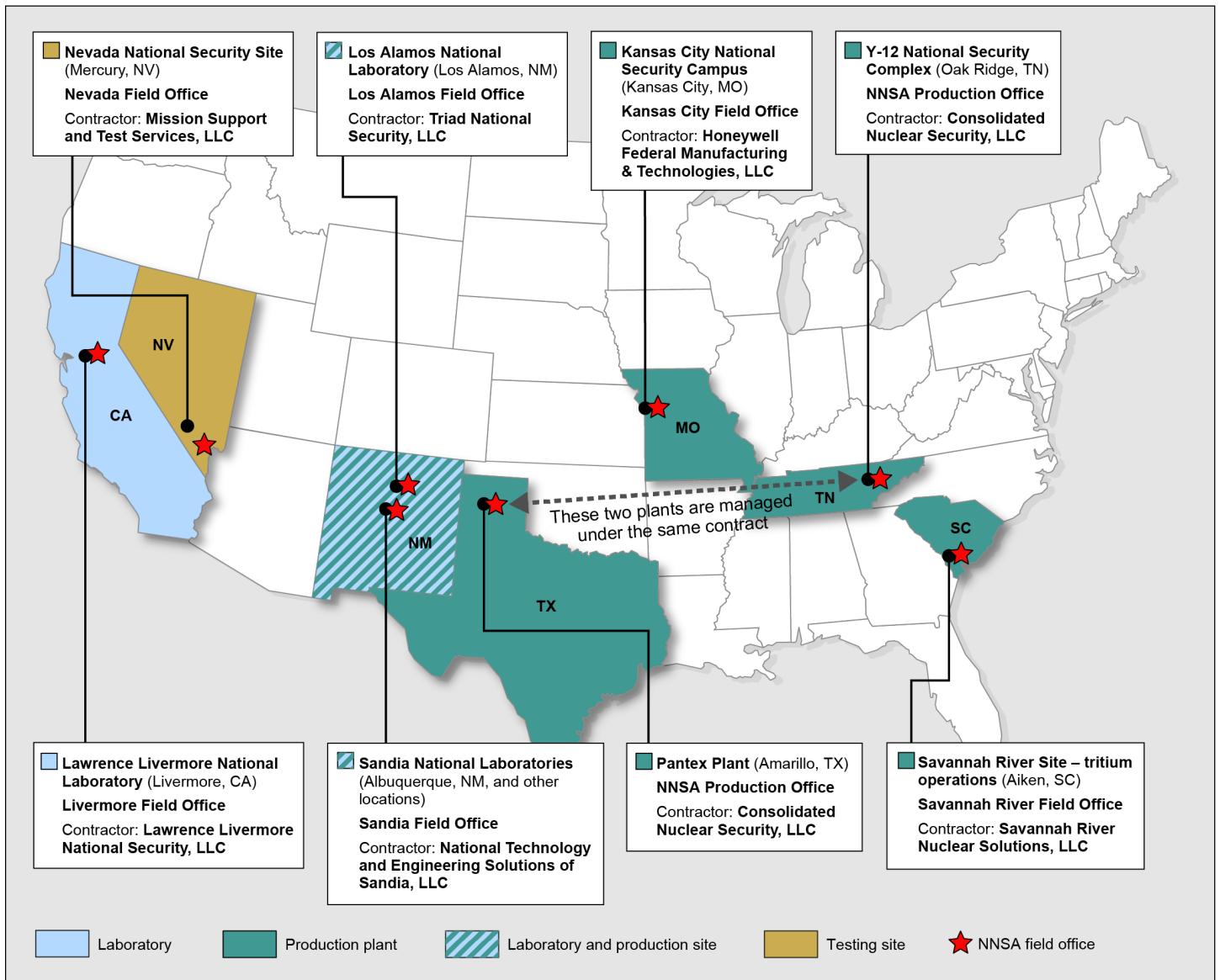
According to the FAR, an M&O contract is characterized both by its purpose and by the special relationship it creates between the government and contractor. The FAR lists the following characteristics of M&O contracts:

- Government-owned or government-controlled facilities must be used.
- The government must maintain a special, close relationship with the contractor and the contractor's personnel.
- The conduct of the work is wholly or at least substantially separate from the contractor's other business, if any.
- The work is closely related to the agency's mission and is of a long-term or continuing nature, and there is a need to ensure its continuity and for protection covering the orderly transition of personnel and work in the event of a change in contractors.

Source: Federal Acquisition Regulation. | GAO-22-103948

NNSA's eight sites, the contractors responsible for managing and operating the sites, and the seven field offices that oversee the contractors are presented in figure 1.

**Figure 1: NNSA Sites, Field Offices, and Management and Operating Contractors, as of 2021**



Sources: GAO presentation of National Nuclear Security Administration (NNSA) information; Map Resources (map). | GAO-22-103948

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## Evolution of DOE and NNSA WA Requirements

The DOE Acquisition Regulation (DEAR) establishes the requirements for the use of WAs at DOE and NNSA.<sup>15</sup> According to the DEAR, NNSA must use a WA to assign the work that M&O contractors are to perform during the fiscal year. The DEAR further specifies that WAs must be issued prior to the commencement of work and incurrence of any costs.<sup>16</sup> In addition, each NNSA M&O contract requires that the contracting officer provide the contractor with a finalized work authorization prior to the start of each fiscal year.

DOE's Order 412.1A establishes direction for implementing DEAR requirements related to the WA process. Originally issued in 1999, the order was last updated by DOE in May 2014. The order applies to DOE organizations—including NNSA—that direct the work of contractors at DOE sites.<sup>17</sup> It establishes the information to be included in each WA, such as the performance period and the statement of work, and the information to be included in each statement of work, such as required milestone dates and deliverables.

In January 2017, to further operationalize and improve the procedures it uses to administer WAs, NNSA issued its own directive on the WA process.<sup>18</sup> According to NNSA documentation, NNSA established the directive to address a variety of issues, including bringing greater efficiency and effectiveness to the WA process, strengthening internal controls, and transferring the primary responsibility for WA policy at NNSA from NNSA's Office of Management and Budget to NA-APM. The directive first applied to work authorizations prepared by NNSA offices for fiscal year 2018.

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<sup>15</sup>While general regulatory requirements applying to the acquisition process at all agencies are set forth in the Federal Acquisition Regulation (FAR), agencies may supplement the FAR by providing additional internal agency regulations, including designations and delegations of authority, assignments of responsibilities, workflow procedures, and internal reporting requirements. The DEAR establishes such supplemental requirements for the Department of Energy.

<sup>16</sup>48 C.F.R. § 970.1170-1.

<sup>17</sup>DOE, *Work Authorization System*, DOE O 412.1A (Washington, D.C.: Apr. 21, 2005, admin change May 21, 2014). The order applies to most NNSA organizations, but it excludes NNSA's Office of Naval Reactors (NA-30). According to NA-30 officials, this is because NA-30 is a joint organization of NNSA and the Department of Defense and therefore utilizes an alternative process for assigning work to the relevant contractors.

<sup>18</sup>The 2017 directive replaced prior policy. See NNSA, *Budget Execution Headquarters Approved Funding Program and Work Authorization Business Operation Policy*, Business Operating Procedure 001.331.

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Following issuance of the directive and prior to its implementation at the start of fiscal year 2018, NA-APM provided approximately 30 trainings on the overall WA process to relevant NNSA audiences, including officials at the program offices, field offices, and sites and laboratories. These trainings provided information about the history of the directive process, regulatory requirements, the roles of different offices, and the WA and IP templates provided in the directive.

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## NNSA's WA Process

NNSA's WA directive specifies the roles and responsibilities for NNSA offices and officials to carry out when developing, reviewing, and approving WAs.

**NA-APM.** NA-APM is responsible for providing NNSA's program and field offices and contractors with guidance on the WA process, assisting in the resolution of any issues related to drafting and implementing WAs, as well as conducting random quality assurance reviews of WAs.<sup>19</sup>

**Program offices.** NNSA's program offices are responsible for developing the initial drafts of WAs. The program offices are then to transmit the documents to the contracting officer at the NNSA field office responsible for overseeing the contractor operating the site for which the WA was written. Officials from the program offices are to work with the contracting officers and representatives from the contractors to resolve any issues related to the scope of work, schedule, and estimated costs associated with the statement of work articulated in the WA. The program office officials are to then sign the implementation portion of the WA once it is finalized.

**Field offices.** Within NNSA's field offices, contracting officers are responsible for coordination between the program offices and the contractors to ensure all parties reach agreement on the scope of work, schedule, and estimated costs in each WA. The contracting officer is to receive the draft WA from a given program office, then send it to the contractor for its review and potential requested revisions, and is to ensure that the contractor signs the WA once any revisions are finalized. The contracting officer is to also sign the WA after the contractor

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<sup>19</sup>NNSA's Office of Management and Budget is also involved in the WA process through its support functions—specifically, confirming funding information and reviewing funding changes.



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representative has signed it. The contracting officer's signature is what legally authorizes the work to begin.<sup>20</sup>

**M&O contractors.** The M&O contractors are expected to work with the NNSA program office officials and the contracting officers at the field offices to reach agreement on the scope of work, schedule, and estimated costs associated with the statement of work articulated in the WA. The contractors are to sign the WAs prior to returning them to the contracting officers for their review and signature.<sup>21</sup>

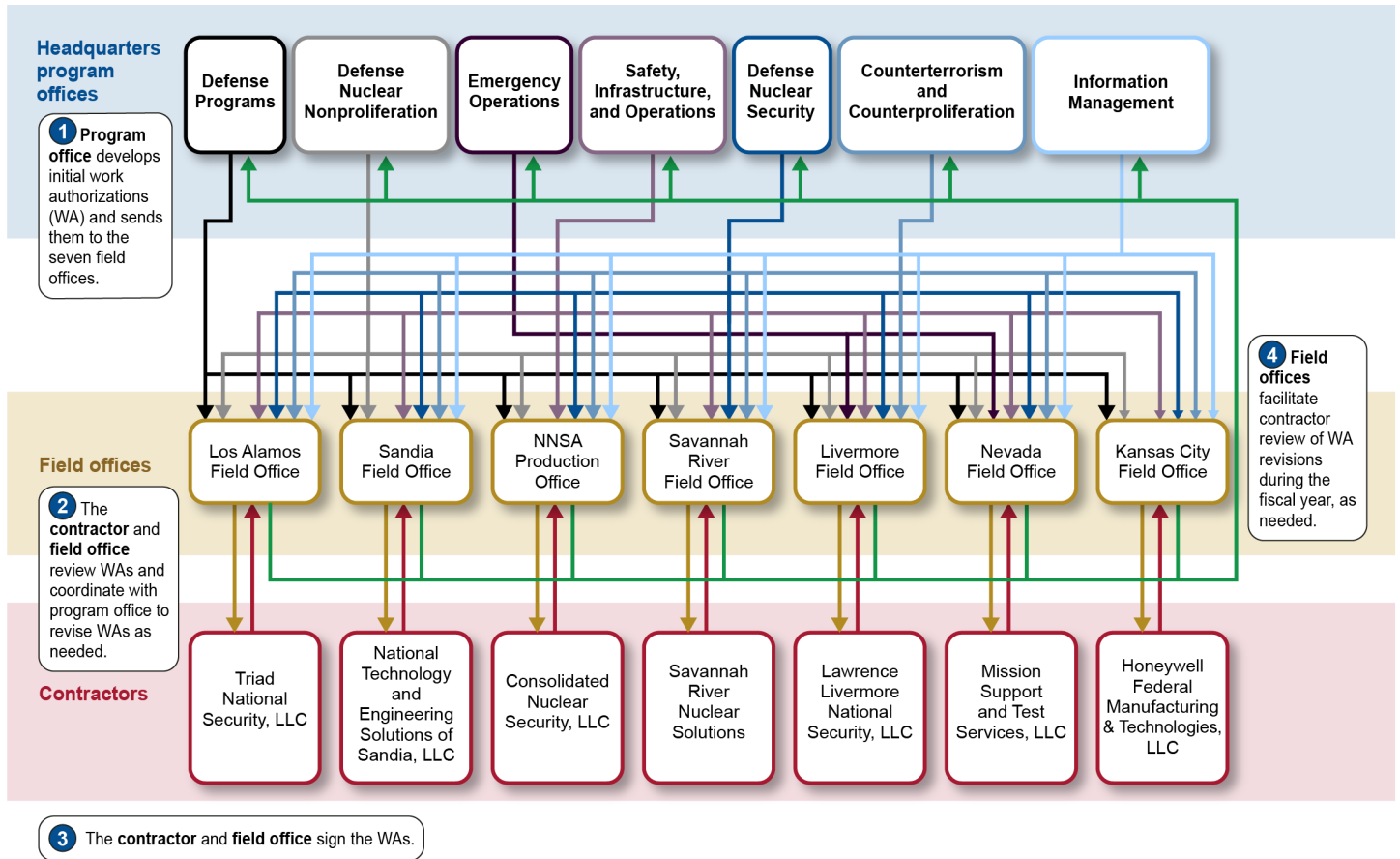
For a representation of the WA process through a given fiscal year, see figure 2.

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<sup>20</sup>Contracting officer responsibilities include distributing finalized WAs to NNSA's program offices, NNSA's Office of Management and Budget, and NA-APM's central WA email repository, as well as serving as the primary point of contact for questions or issues concerning particular finalized WAs.

<sup>21</sup>NNSA's directive on WAs is not binding on M&O contractors, but the directive sets out expectations for their participation in the process of developing, reviewing, and approving WAs.

**Figure 2: Representation of the NNSA Work Authorization Process through a Fiscal Year**



Source: GAO analysis of National Nuclear Security Administration (NNSA) documentation. | GAO-22-103948

NNSA’s program offices issued an average of 94 WAs and 52 associated IPs to NNSA’s contractors each fiscal year from 2018 through 2020.<sup>22</sup> The program offices issued varying numbers of WAs and IPs each year (see table 3).

<sup>22</sup>Six of seven program offices—all except for Naval Reactors (NA-30)—and one functional office in headquarters, Information Management (NA-IM), issue WAs. For the purposes of this report, we refer to all seven offices as “program offices.”

**Table 3: NNSA Work Authorizations (WAs) and Implementation Plans (IPs) by Office and Fiscal Year**

NNSA program office	Fiscal year 2018		Fiscal year 2019		Fiscal year 2020	
	WA	IP	WA	IP	WA	IP
Defense Programs (NA-10)	24	15	27	15	28	12
Defense Nuclear Nonproliferation (NA-20)	26	4	25	4	23	5
Emergency Operations (NA-40)	2	2	2	2	2	2
Safety, Infrastructure and Operations (NA-50)	11	6	13	8	13	8
Defense Nuclear Security (NA-70)	9	1	10	1	10	1
Counterterrorism and Counterproliferation (NA-80)	8	21	9	23	8	22
Information Management (NA-IM)	9	1	11	1	11	1
<b>Total</b>	<b>89</b>	<b>50</b>	<b>97</b>	<b>54</b>	<b>95</b>	<b>51</b>

Source: GAO analysis of National Nuclear Security Administration (NNSA) information. | GAO-22-103948

Each program office structures its WAs and IPs in different ways. For some program offices, a single WA may have multiple IPs associated with it. For other program offices, a given WA has a single IP. For examples of how each program office issues its WAs and IPs, see appendix II. The authorization portion is generally two pages in length and contains high-level budgetary information along with boilerplate information required by the WA template contained in NNSA’s directive on WAs. The implementation portion ranges in length: it is generally at least 10 pages in length, but in some cases it is significantly longer. In addition, the IPs include (by reference) information provided in other strategic, programmatic, or budgetary documents, such as monthly financial plan adjustments and program management plans.

## NNSA’s Contractor Performance Evaluation Process

The Federal Acquisition Regulation (FAR), DEAR, DOE’s Acquisition Guide, and DOE policies provide requirements and guidance for NNSA’s annual evaluations of contractor performance. The FAR specifically requires that all contracts that provide potential award fees to contractors based on performance—as is the case with NNSA’s M&O contracts—establish procedures for evaluating the contractor’s performance to determine the award fees. NNSA established a policy that outlines its process for evaluating NNSA’s M&O contractors’ performance.<sup>23</sup> This

<sup>23</sup>NNSA, *Corporate Performance Evaluation Process for Management and Operating Contractors*, NAP 540.3 (Washington, D.C.: Dec. 22, 2016). The framework for how NNSA governs its M&O contractors is contained in its directive on site governance. NNSA, *NNSA Site Governance*, Supplemental Directive 226.1C: (Washington, D.C.: Oct. 1, 2019).

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policy provides a general framework under which NNSA officials provide input into the contractor performance evaluation process. The policy also provides a general schedule for implementing the performance evaluation approach, as well as general references to information collection. In accordance with this policy, NA-APM issues associated guidance each fiscal year to guide that year's contractor performance evaluation process.<sup>24</sup> The guidance identifies the contractor performance evaluation schedule for the fiscal year and provides instructions and templates for preparing, reviewing, and approving associated performance evaluation documentation.

NNSA offices develop three primary types of documents to guide and report assessments of contractors' performance for each fiscal year: (1) a Performance Evaluation and Measurement Plan, (2) Interim Feedback Reports, and (3) a Performance Evaluation Report. The first document, the Performance Evaluation and Measurement Plan, is developed before the beginning of each fiscal year (that is, the beginning of the evaluation period). It establishes expectations for contractor performance, consistent with WAs for the contractor, and describes how the responsible NNSA offices will evaluate and measure performance against those expectations. The plan provides the blueprint for how the evaluations will be used to determine award fees, award terms, and any other incentives.

The other two document types provide evaluations of the contractor's performance throughout the fiscal year. According to NNSA's annual contractor performance evaluation guidance, the Interim Feedback Report should be submitted twice per fiscal year—for the periods of October through January (i.e., first third of the fiscal year) and October through May (i.e., first two-thirds of the fiscal year). These reports serve as the responsible NNSA office's evaluation of contractor performance during each review period. According to the guidance, interim reports should highlight significant accomplishments or issues.

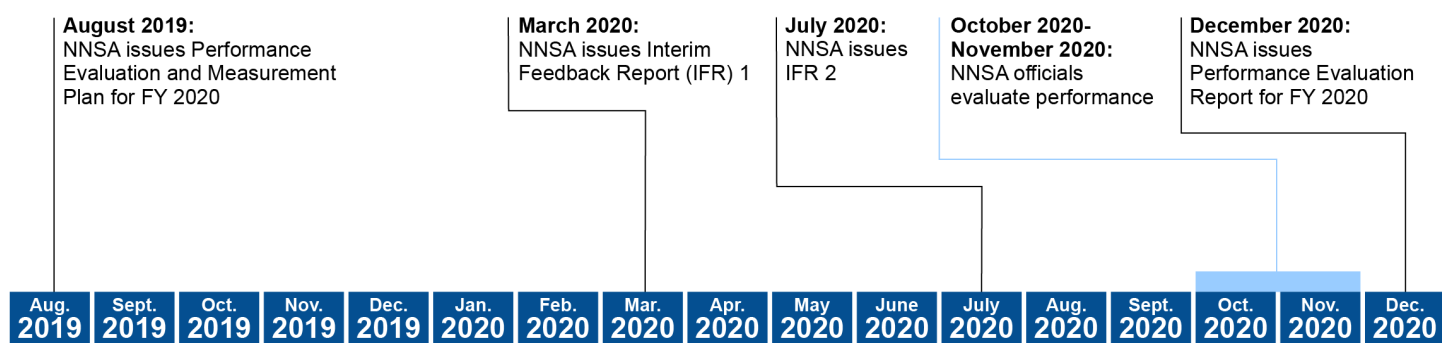
The Performance Evaluation Report is to be developed at the end of each evaluation period—typically the end of the fiscal year—and is the responsible NNSA office's evaluation of contractor performance. NNSA uses this report to document the performance rating and, in some cases, the fees and other incentives that will be awarded to the contractor. See

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<sup>24</sup>For example, NNSA, *National Nuclear Security Administration (NNSA) Fiscal Year (FY) 2020 Corporate Performance Evaluation Process (CPEP) Annual Implementation Guidance*.

figure 3 for an illustrative timeline depicting when the various evaluations are completed and the reports issued to the contractors in the course of the year.

**Figure 3: Fiscal Year (FY) 2020 NNSA Contractor Performance Evaluation Schedule**



Source: GAO analysis of National Nuclear Security Administration (NNSA) documentation. | GAO-22-103948

## NNSA Has Taken Steps to Improve Its WA Process, but Continues to Face Challenges

NNSA took steps to improve its process for developing, reviewing, and issuing WAs in 2017 and 2018, but it continues to face challenges related to delays in WA issuance and storage of WAs once issued. In 2017, an internal working group was tasked with reviewing the WA process at NNSA, identifying any issues needing addressing, and developing associated recommendations to improve the WA process and content. However, the working group’s primary recommendation—to address approval and issuance delays—has not been fully implemented. In addition, we found that not all WAs for fiscal years 2019 and 2020 were stored in DOE’s document management system of record, contrary to DOE and NNSA policy, making it difficult for NNSA officials to access WAs when necessary.

## NNSA Took Several Steps in 2017 and 2018 to Review its WA Process and Made Recommendations for Further Improvements

NNSA reviewed its WA process in late 2017 and 2018—after the issuance of its WA directive—to identify concerns and make recommendations about any needed changes to the WA process and content. Specifically, in late 2017, NA-APM initiated an internal inter-office WA working group to review how NNSA’s offices and contractors had implemented the directive during the WA cycle for fiscal year 2018, the first WA cycle the directive was in effect. As noted earlier, the 2017 directive required that WAs be approved by the start of the fiscal year, or before work began if after the start of the fiscal year. The inter-office working group met a few times during 2017 and 2018 to identify any

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areas of concern. In particular, the group identified challenges related to program offices' timeframes for submitting draft WAs to field offices for review and with the content of WA documents, as well as the need to clarify aspects of certain additional processes and roles.<sup>25</sup> More specifically, working group documentation noted two areas of concern.

- **Concern about timeliness of finalizing WAs.** Prior to the 2017 directive, many WAs were distributed by the program offices to the field for review after the start of the fiscal year, placing the government and the site contractor at risk by not having a work authorization in place at the beginning of the fiscal year (as required by NNSA's directive). According to NNSA officials, delay in issuance of WAs created unnecessary pressures and stress on limited field resources, as the field offices and contractors were frequently not afforded sufficient time to review draft WAs prior to the start of the fiscal year. The 2017 directive sought to ensure that WAs were approved by the start of the fiscal year, or before work began if after the start of the fiscal year. However, according to officials from NA-APM, the working group found this did not happen for all WAs for fiscal year 2018, which were the first WAs developed under the process prescribed in the directive.
- **Concern about the quality of WA content.** WAs varied widely in length, complexity, and the degree to which the WAs were tailored to specific sites and contractors. These differences may in some cases necessitate longer WA review periods and more collaboration between the program office, field office, and contractor.

In response to the working group's assessment, NA-APM issued a memorandum in October 2018 with recommendations to further improve the WA process.<sup>26</sup> The memorandum contained two recommendations specific to timeliness and WA content.

- **Recommendation to address WA timeliness.** The working group recommended that NNSA program offices distribute draft WAs to

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<sup>25</sup>The working group sought to clarify, among other things, the process for how to make incremental WA funding changes without formally modifying the WAs, as well as the role of the Cross-Cutting Contracting Officer Representatives. This role clarification is no longer directly applicable as the Cross-Cutting Contracting Officer role has been discontinued in NNSA field offices, according to NA-APM officials.

<sup>26</sup>NNSA NA-APM, *Memorandum: Supplemental Directive 412.1 Work Authorization Dash-2 Working Group Meeting Decisions* (Washington, D.C.: Oct. 29, 2018).

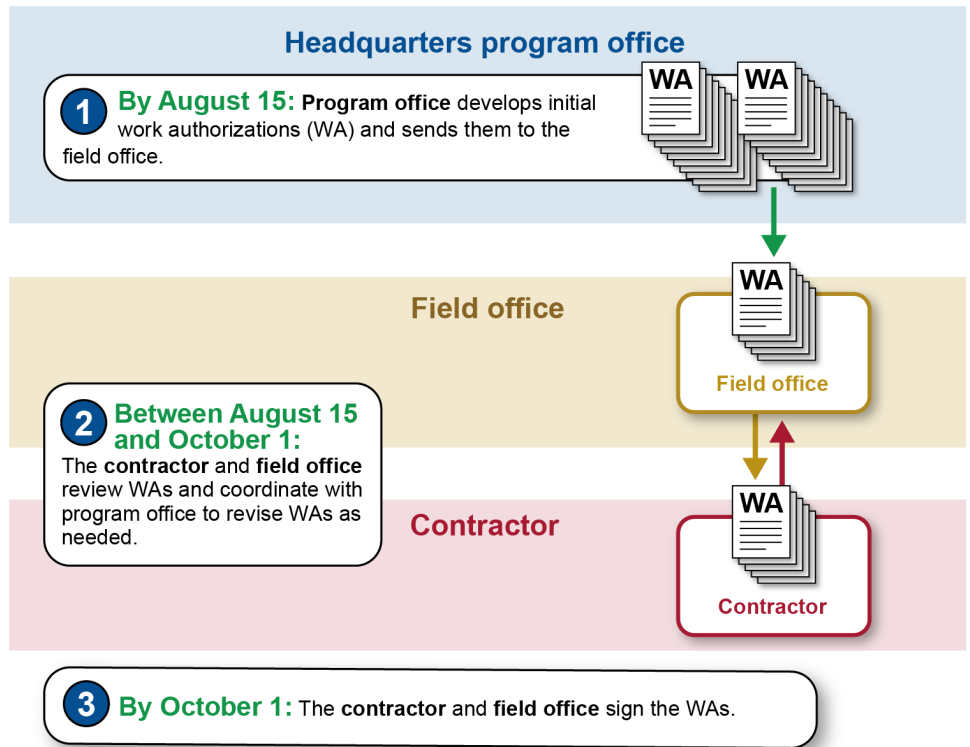
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NNSA's field offices by August 15, prior to the start of the fiscal year. This recommendation aimed to enable both the field office contracting officers and the M&O contractors' representatives to review the draft WAs, collaborate with the program offices to incorporate edits or revisions, and sign these documents by the start of the fiscal year on October 1. See figure 4 for a graphic depiction of the WA drafting and approval process based on these dates.

- **Recommendation to address the quality of WA content.** The working group recommended that NA-APM and NNSA's program offices and field offices collaborate to provide joint training to share lessons learned on the WA process and document content in order to help improve the quality of WAs. NA-APM also stated in the memorandum that changes to NNSA's directive on WAs to implement the working group's recommendations were forthcoming.

The recommendations in this memorandum were implemented for the first time during the fiscal year 2020 WA cycle.

**Figure 4: NNSA Initial Work Authorization Drafting and Approval Process with Recommended Dates**



Source: GAO analysis of National Nuclear Security Administration (NNSA) documentation. | GAO-22-103948

## NNSA Has Not Fully Implemented Its Primary Recommendation for Improving the WA Process

NNSA continues to experience challenges finalizing all of its WAs by the start of the fiscal year, contrary to NNSA’s M&O contract requirements for authorizing work. We found that not all WAs were signed by the start of fiscal year 2020 even though NNSA’s directive on WAs requires that they be issued to site contractors by the start of the fiscal year (or before commencing new work after the start of the fiscal year).<sup>27</sup> In addition, we found that the recommended additional training to improve WA content quality has not been provided; however, respondents to our survey generally did not identify WA quality as a continuing concern.

<sup>27</sup>WAs may be issued after the start of the fiscal year for new work that is assigned after the fiscal year has started and before any work commences.



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Regarding the timeliness of WAs, five of the seven field offices and five of the seven contractors that responded to our survey reported not being able to finalize and issue all of their WAs by the start of fiscal year 2020. For example, the contractor for the Nevada National Security Site reported that approximately 10 WAs for its site were not finalized prior to the start of the fiscal year. In addition, in our review of a nongeneralizable sample of WAs for fiscal years 2019 and 2020, we found that some of the sampled WAs for both fiscal years were not finalized by the start of the given fiscal year. Specifically, five of the 14 fiscal year 2019 WAs that we sampled and six of the 14 fiscal year 2020 WAs that we sampled were not signed by the start of their respective fiscal years.

We found that not all WAs were signed by the start of the fiscal year in part because NNSA does not have a WA drafting schedule with required deadlines for WA reviews. Specifically, NA-APM has not revised the NNSA directive on the WA process to establish, for example, a required schedule for issuing draft WAs to field offices for review prior to the start of the fiscal year. NA-APM officials said that, as of August 2021, they did not have plans to make changes to the directive in the future based on the working group's recommendations. However, in the absence of a WA drafting schedule with required deadlines, four of the seven field offices reported that some program offices did not follow the recommended timeframes for distributing draft WAs to the field by August 15 to facilitate timely field review and finalization by October 1. For example, contracting officers from the Savannah River Field Office told us that they did not receive three draft WAs for review and signature until September, which did not allow them enough time to review the draft WAs, seek revisions if needed, and finalize them by the start of the fiscal year on October 1.

Moreover, in certain cases where program offices submitted draft WAs to the field for review by August 15, consistent with NA-APM's recommendation in its 2018 memorandum, it took the field offices and site contractors longer than expected to review, revise, and finalize some WAs. This led to their finalization after October 1 in certain cases. For example, NNSA officials at the Savannah River Field Office noted that NNSA's Office of Defense Programs had to retroactively make changes to the draft WAs it had previously provided to the field office and contractor for review. This was due to changes in late August and September 2019 to the scope and funding for NNSA's tritium and

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plutonium sustainment programs.<sup>28</sup> Field office officials stated that the contractor representative for the Savannah River Site would not sign and finalize the associated WAs until the Office of Defense Programs had approved the changes to the scope and funding for the two programs and modified the draft WAs to reflect the changes.<sup>29</sup>

Not having finalized WAs prior to the start of the fiscal year leads to potential financial risks for contractors and additional burdens on some contractor's resources to undertake duplicative efforts. Specifically,

- Under cost-reimbursement contracts, the government reimburses a contractor for allowable costs incurred, to the extent prescribed by the contract.<sup>30</sup> If a contractor were to begin work or expend funds without a finalized WA, it would incur the risk that NNSA might not reimburse its costs for such work or might seek to recover funds that had already been reimbursed.
- As previously noted, NNSA's working group on the WA process found that delays in issuing WAs create unnecessary pressures and stress on limited field office resources, posing risks to overall program execution. These delays may also result in inefficiencies. For example, the contractor representative from the Savannah River Site said they have to prepare temporary "stop-gap" work orders until the finalized WAs become available as the "official" work orders. The contractor representative told us that the contractor would continue to produce these documents until they have confidence that all WAs for the site will be finalized by the start of the fiscal year—that is, until the program offices give the contractor sufficient time to review the draft WAs, request revisions as needed, and finalize them before the start of the fiscal year.<sup>31</sup>

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<sup>28</sup>NNSA recycles tritium at the Savannah River Site from existing warheads, among other things. Tritium and plutonium are key components of nuclear weapons.

<sup>29</sup>According to NNSA program office officials managing the tritium sustainment program, officials from the program office were in ongoing communication with the associated field office officials and contractor representatives throughout this process, beginning in July 2019.

<sup>30</sup>Allowable costs are costs that are reasonable, allocable to the contract, subject to proper accounting, and in compliance with contractual terms and any limitations set forth in 48 C.F.R. subpart 31.2.

<sup>31</sup>The contractor develops these stop-gap orders with input from NNSA officials at the field office, including the contracting officer, who also reviews and signs them.

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By establishing a required schedule for NNSA's offices and contractor sites to review, revise, and finalize draft WAs by the start of each fiscal year, NNSA could help ensure the timely completion of WAs, avoid potential financial risks for contractors, and avoid placing additional burdens on some contractors' resources to undertake duplicative efforts.

NNSA's 2018 memorandum on WAs also recommended that training be provided on the WA process to help improve the quality of WA documents, and NNSA has not provided training on the WA process since late 2017.<sup>32</sup> NA-APM last offered training on the WA process upon issuance of NNSA's directive on WAs and has not offered training since NA-APM issued its recommendations in 2018 on the need for additional training.<sup>33</sup> According to NA-APM officials, their office has experienced a decline in the number of personnel available to implement the WA process, including conducting related training. The officials told us that NA-APM's WA subject matter expert left NNSA in May 2020, and as of July 2021, that position had not yet been filled, nor did NA-APM know when or whether the position might be filled by NNSA in the future. NA-APM officials said they do not expect to conduct additional WA training in future fiscal years until they fill their WA subject matter expert position.

While training has not been offered by NA-APM on the WA process since 2017, NNSA program and field office officials and contractor representatives reported that they were generally satisfied with the quality of the content of WAs for fiscal year 2020.<sup>34</sup> To determine the officials' and representatives' perspectives on WA content quality, we surveyed 21 stakeholders involved with the fiscal year 2020 WAs—NNSA's seven

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<sup>32</sup>NNSA's WA directive contains information on the WA process and templates for documenting WAs, but the directive does not establish criteria for what constitutes sufficient detail when populating the required individual sections of WA documents.

<sup>33</sup>NNSA's WA directive does not specify WA training requirements. NA-APM's October 2018 memorandum recommended that training on the WA process be provided, but it did not specify the frequency with which such training should be offered, nor did it identify which office should be the lead for developing and offering the recommended training.

<sup>34</sup>In the questionnaire we sent to NNSA officials and contractor representatives, we noted that there is no single definition for what constitutes "quality" in WAs, but the International Institute of Business Analysis' *Guide to the Business Analysis Body of Knowledge*<sup>®</sup> notes that requirements for work to be performed may be considered as higher quality if they are complete, consistent, feasible, testable/measurable, and understandable. See appendix III for more detail. International Institute of Business Analysis, *A Guide to the Business Analysis Body of Knowledge*<sup>®</sup>, 3rd edition. (Pickering, Ontario, Canada: April 2015).

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program offices, seven field offices, and the seven contractors that operate NNSA's sites.

We asked the officials and representatives to rate the quality of nine components and characteristics of the WAs, such as the description of the work to be performed and performance measures.<sup>35</sup> We found that the officials and representatives reported being generally satisfied with the quality of all nine components and characteristics of the WAs for the fiscal year 2020 cycle. Specifically, 15 or more stakeholders out of 21 rated each of the nine components and characteristics we asked about as being of high or very high quality. Two of the nine components and characteristics each received a single rating of low or very low quality out of 21 possible total ratings. See appendix III for a table showing how the quality of these nine components and characteristics was rated by WA stakeholders.

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## NNSA Continues to Have Challenges with Storing and Accessing WAs

Officials at NNSA offices were not readily able to provide us with copies of WAs and confirmed they could not because they did not consistently store all WAs in DOE's contract document management system of record. According to NNSA officials and documentation, WAs are contract documents. The FAR requires storage of and ready access to contract documents, and associated DOE and NNSA policy specifically requires contract documents be stored in DOE's system of record, the Strategic Integrated Procurement Enterprise System (STRIPES). However, when we asked the 14 NNSA program and field offices about their WA document storage and management, none of the seven program offices and two of seven field offices reported using STRIPES to store their WAs. Instead, most program and field office officials reported using a variety of other document management systems (such as SharePoint) to store and share draft and final WAs.

NNSA officials said that NNSA offices did not store all WAs in STRIPES due in part to a lack of awareness of the agency's requirement to use the system. In addition, some NNSA officials and contractor representatives cited technical challenges associated with STRIPES as a reason why

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<sup>35</sup>The nine components and characteristics are elements of WAs specified in NNSA's directive on WAs. They are: (1) general descriptions of the work to be performed; (2) cost/price definitions; (3) scope definitions; (4) schedules of key deliverables; (5) site-specificity; (6) linkage to the goals, objectives, strategies, and performance measures contained in the NNSA Strategic Plan, the Future Years Nuclear Security Program, work plans, and other guidance; (7) performance expectations; (8) performance measures; and (9) performance reporting.

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NNSA offices did not store all WAs in the system. For example, some officials and representatives stated that STRIPES is not an appropriate vehicle for storing and sharing WAs between NNSA's offices and contractor sites because the contractors do not have access to STRIPES.<sup>36</sup> Officials from one field office referred to STRIPES as an antiquated system that is now suffering long lag times when documents are loaded into or down from the system.

As a result of not consistently using STRIPES or identifying an alternative to STRIPES that can be consistently used, NNSA officials do not have ready access to these contract documents. Specifically, NA-APM officials did not have ready or timely access to a full and complete set of WAs for fiscal years 2019 through 2020 when we requested it as part of our review. It took approximately 9 months from our initial requests for the WAs until we received confirmation from NNSA officials that we had a complete list of the WAs, as well as copies of each document. As previously discussed, the FAR requires storage of and ready access to contract documents, such as WAs.

This issue is similar to one on which we have previously reported. Specifically, in August 2018, we reported that NA-APM did not have ready access to many contract documents.<sup>37</sup> To improve its management of contract documents, we recommended that NA-APM update its guidance to reflect DOE's policy requiring NNSA field offices to use STRIPES for contract document management. NNSA concurred with this recommendation and issued updated guidance to require use of STRIPES to store contract documents by October 2018. While NNSA addressed our recommendation by issuing this guidance, the continued lack of ready access to WAs demonstrates that the guidance is not being followed.

Some NNSA officials and contractor representatives identified technical challenges with STRIPES as contributing to why STRIPES is not being used, contrary to NNSA's guidance, and suggested that NNSA adopt or develop an alternative document management system to STRIPES for

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<sup>36</sup>STRIPES is also used as DOE's contract writing system and, according to NNSA officials, contains procurement sensitive information to which contractors should not have access.

<sup>37</sup>GAO, *Management Report: Actions Needed to Improve National Nuclear Security Administration Contract Document Management*, [GAO-18-246R](#) (Washington, D.C.: Aug. 1, 2018).

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storing and sharing WAs. For example, one NNSA field office official suggested that NNSA use the MAX.gov federal website or equivalent to store and share WAs, which would enable contractors to directly access these documents.<sup>38</sup> In addition, in a document summarizing NA-APM's quality control reviews of WAs for fiscal year 2018, an NA-APM official recommended that NNSA adopt and use an enterprise-wide electronic document management system (other than STRIPES) to develop, transmit, sign, and store WAs and related documents. The official also noted that NNSA's working group on the WA process made a similar recommendation during its review in 2017-2018.

While NNSA officials told us they are aware of the challenges with using STRIPES to store and share WAs and that NNSA's working group recommended adopting a different document management system, NNSA has not evaluated whether STRIPES' technical challenges can be addressed or whether a different document management system should be adopted that would better allow NNSA to comply with the FAR and DOE policy on contract document management and storage. Without an assessment of the causes of the technical challenges associated with the continued use of STRIPES as the NNSA system of record for WAs—or, alternatively, an assessment of the need for a different document management system to facilitate the drafting and sharing of WAs between NNSA offices and contractors—and proposed solutions for addressing any challenges identified, NNSA's program and field offices may continue to have problems following NNSA's guidance and complying with the FAR and DOE policy on contract document storage and management.

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<sup>38</sup>MAX.gov is a federal government-wide suite of collaboration, information sharing, data collection, publishing, business intelligence, and authentication tools and services used to facilitate cross-government collaboration and knowledge management. MAX has over 200,000 users, across 180 federal agencies, in all branches of government. The MAX.gov team includes the Office of Management and Budget, the Department of Education, and contractors that provide information technology and project management support. For more information, see: <https://portal.max.gov/portal/home>.

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## Work Authorizations Are a Potential Input for Contractor Performance Evaluation, but the Extent to Which They Are Used to Evaluate Performance Is Unclear

According to NNSA officials and contractor representatives, WAs are an important mechanism for setting expectations to help measure contractor performance and provide one of many potential inputs for NNSA officials when evaluating contractor performance. However, we were unable to determine the extent to which NNSA officials use WAs to understand performance expectations when evaluating contractor performance. This was in part because NNSA does not have clearly documented procedures specifying how officials are to collect performance information and trace that information to performance expectations, such as those included in WAs, for evaluating contractor performance. We previously reported on this issue in February 2019, and made a recommendation that NNSA should develop clear procedures for, among other things, ensuring performance evaluations can be traced to performance evidence.<sup>39</sup>

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## Work Authorizations May Be Used As Inputs for Contractor Performance Evaluations

NNSA's directive on WAs requires that WAs contain performance measures, and NNSA's performance evaluation guidance notes that these measures may be used when evaluating contractor performance. NNSA's directive requires that WAs contain performance measures in part to help facilitate NNSA's monitoring of contractor performance. According to NNSA's performance evaluation guidance, NNSA officials are to compare data on contractor performance against performance measures contained in a variety of potential sources, including WAs. These comparisons allow officials to determine whether the contractor's performance meets, exceeds, or does not meet mission requirements, and help determine the percentage of the award fee the contractor earned based on its performance during the fiscal year.

NNSA officials and contractor representatives confirmed that WAs are a mechanism for setting expectations to help measure contractor performance and are a potential input to NNSA's contractor performance evaluations. Specifically, we asked NNSA officials and contractor representatives representing the 21 offices and sites about the importance of WAs as a tool for monitoring contractor performance. Officials and representatives from 20 of these offices and sites identified WAs as an important input for setting contractor performance expectations against which to monitor.

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<sup>39</sup>[GAO-19-5](#).

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However, the officials and contractor representatives noted using additional sources for evaluating contractor performance as well. They noted that a contractor's performance specific to the scope of work detailed in a given WA is one of many potential inputs used to evaluate the contractor's overall performance.<sup>40</sup> For example, NNSA officials said that contractors may also report the status of work tasked to them through WAs via another mechanism, such as the Office of Defense Programs' (NA-10) Defense Program Milestone Reporting Tool. This tool allows program officials to perform ongoing monitoring of contractor's defense program efforts against the work schedules contained in a variety of NNSA program and project management documents, including WAs.

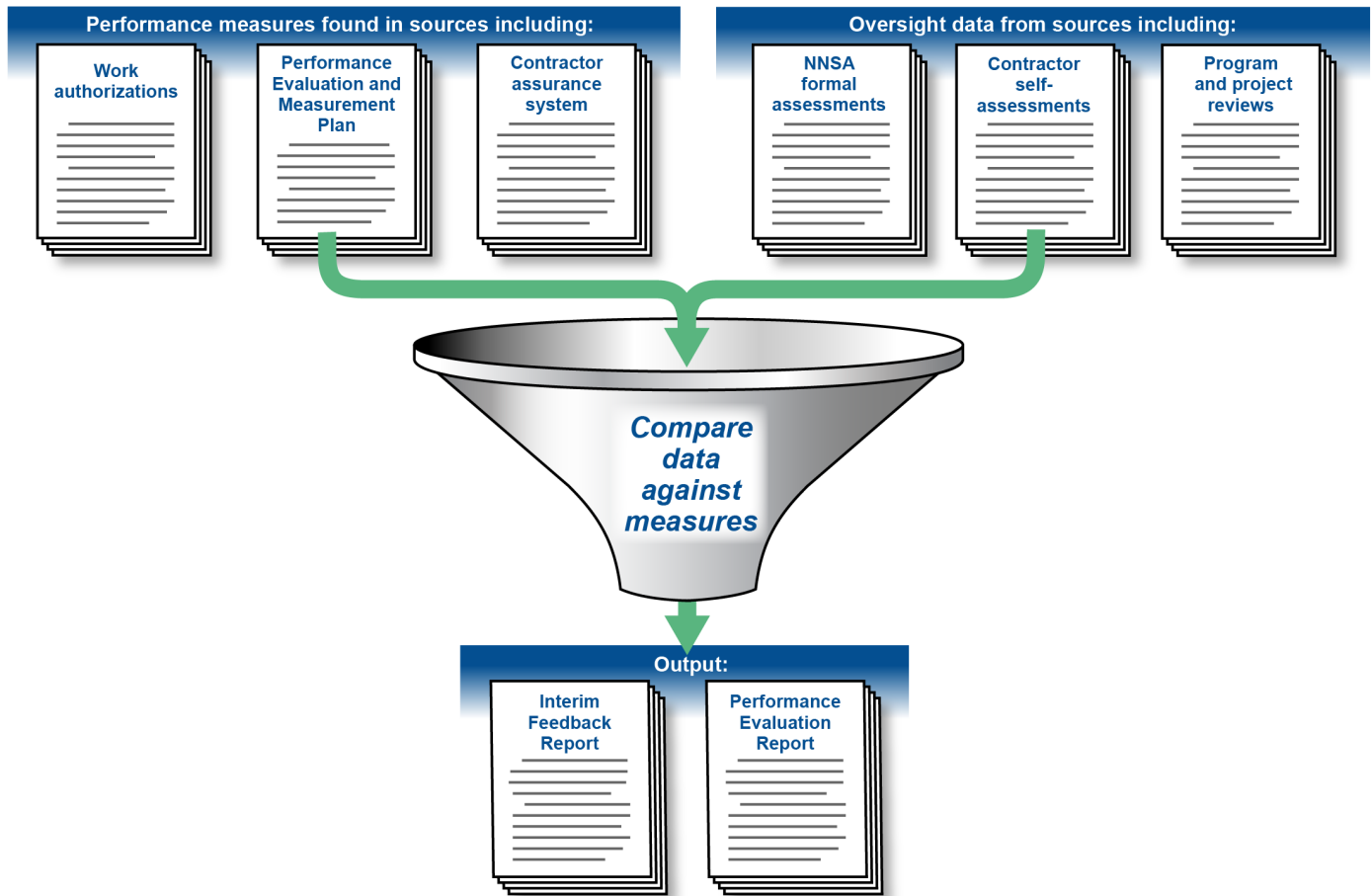
According to NNSA officials, the performance expectations contained in the WAs serve as a baseline input for expectations that were established at the start of the fiscal year. Therefore, additional information is necessary to evaluate actual performance against the baseline, such as performance expectations contained in other documents and related performance information provided by the contractor. See figure 5 for a graphic depiction of how NNSA may use information in WAs and other documents to produce interim feedback reports and performance evaluation reports.

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<sup>40</sup>According to NNSA's contractor performance evaluation process guidance for fiscal year 2020, evaluation of contractor performance will consider oversight data including, but not limited to, DOE and NNSA formal assessments, contractor self-assessments, internal and external audits, inspections, program and project reviews, operational awareness activities, contractor assurance systems, and safety performance measures.



Figure 5: NNSA's Use of Information to Produce Contractor Performance Evaluations



Source: GAO analysis of National Nuclear Security Administration (NNSA) documentation. | GAO-22-103948

## The Extent to Which NNSA Uses Work Authorizations to Evaluate Contractor Performance Is Unclear

We found that the information in NNSA's performance evaluation reports cannot be directly traced back to performance expectations contained in WAs for the reports we reviewed. We reviewed performance evaluation reports for fiscal years 2019 and 2020 for NNSA's seven M&O contractors and were generally unable to find specific references to WAs in the evaluations of contractor performance. Aside from boilerplate references to WAs in the majority of the reports, we found nine additional references to WAs across six of the 14 reports that we looked at for the 2

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fiscal years.<sup>41</sup> However, these additional references to WAs were generally not specific to a measurable performance expectation.<sup>42</sup> For example, one of the fiscal year 2020 evaluation reports noted that the contractor “made progress towards accomplishing the established work authorization milestones and deliverables,” but the report did not identify the actual milestones or deliverables or how they were used to evaluate the contractor’s performance.<sup>43</sup> As a result, the performance evaluation reports did not provide sufficient detail to determine whether the contractor’s performance was evaluated against specific performance measures identified in the contractor’s associated WAs.

NA-APM officials confirmed that it is generally not possible to trace performance expectations contained in WAs to evidence that these expectations have or have not been met in NNSA’s performance evaluation reports. We found that one reason for this lack of traceability is because NNSA’s policy on contractor performance evaluation does not contain clearly documented procedures on how NNSA officials should collect and use performance information, including from performance expectations included in WAs, to allow contractors’ performance ratings to be traced back to the associated inputs upon which the rating was based. This is similar to what we reported in February 2019, when we found that NNSA had no clearly documented procedures for how officials should collect or use performance information in contractor performance evaluations.<sup>44</sup> We found that individual NNSA offices and officials determine how they collect and use such information for the purposes of rating contractor performance, which may lead to inconsistencies across

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<sup>41</sup>We found a total of 49 references to WAs, 40 of which were boilerplate references. The most commonly occurring boilerplate phrase, “*in accordance with DOE/NNSA priorities, Work Authorizations, and Execution/Implementation Plans,*” was used in 10 of 14 performance evaluation reports that we reviewed. This boilerplate phrase is also used in the performance evaluation and measurement plans that are developed at the start of the fiscal year for each contractor, as well as in the interim feedback reports that are provided to the contractor in March and July of each year.

<sup>42</sup>There was one exception. One of 14 performance evaluation reports referenced meeting all of the deliverables in a specific work authorization on or ahead of schedule. The report did not include descriptions of the deliverables or schedules.

<sup>43</sup>We found the same was true when we reviewed the supporting documents NNSA used as inputs to develop the evaluation reports for one of the seven M&O contractors. The references to WAs in these reports were not generally specific to a measurable performance expectation. See appendix I for more detail on how we conducted this analysis.

<sup>44</sup>[GAO-19-5](#).

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the agency. We recommended that NNSA develop and document clear procedures for implementing its contractor performance evaluation process, specifying the process for collecting contractor performance information and describing how officials are to ensure this information can be traced to rating determinations contained in performance evaluation reports.

NNSA concurred with the recommendation and committed to clarifying its process for collecting contractor performance information and describing how this information is to be traced to rating determinations. In particular, in February 2021, NNSA issued its fiscal year 2021 Corporate Performance Evaluation Process Annual Implementation Guidance. This guidance included a section specifying the process for collecting contractor performance information and further details regarding the preparation of interim feedback reports and final performance evaluation reports. However, the guidance is unclear regarding how this information should be traced to rating determinations. As a result, NNSA has not yet fully implemented our recommendation.

As previously discussed, NNSA's guidance on the contractor performance evaluation process notes that WAs are one potential source of performance measures that may be used to help evaluate contractor performance, but the guidance does not detail how these comparisons should be recorded to allow for rating traceability. We continue to believe that without clearly documented procedures specifying how officials are to collect and use performance information, including performance expectations established in WAs, to evaluate contractor performance, NNSA program offices may continue to collect and use contractor performance information inconsistently and without traceability. We will continue to monitor NNSA's actions to implement the recommendation in our February 2019 report.

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## Conclusions

NNSA relies on approximately 90 WAs per year—accounting for over \$14 billion in obligations in fiscal year 2020—to direct the work of its seven contractors managing and operating its eight laboratory and production sites. NNSA has taken steps to improve its process for developing, reviewing, and issuing WAs, but the agency continues to experience challenges in issuing WAs by the start of the fiscal year, as required.<sup>45</sup>

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<sup>45</sup>NNSA's M&O contracts require that WAs be issued to site contractors by the start of the fiscal year. WAs may be issued after the start of the fiscal year for new work that is assigned after the fiscal year has started and before any work commences.

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Until NNSA establishes a required schedule for all stakeholders that enables reviews, revisions, and finalization of the WAs in a timely manner, WAs may continue to be delayed, which can lead to financial risks for contractors and additional burdens on contractor resources for duplicative efforts.

NNSA is also experiencing challenges in storing WAs in the agency's document management system of record.<sup>46</sup> NNSA officials and contractor representatives have not been using STRIPES to store WAs in part because they report technical challenges associated with the system, such as contractor representatives not having access to the system. Some officials and representatives also suggested that an alternative document management system may be needed. Without an assessment of the causes of the technical challenges associated with the continued use of STRIPES—or, alternatively, an assessment of the need for a different document management system for WAs—and proposed solutions for addressing any challenges identified, NNSA's program and field offices may continue to have problems providing ready access to contract documents as required by the FAR.

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## Recommendations for Executive Action

We are making the following two recommendations to NNSA:

The Associate Administrator for Acquisition and Project Management should establish a required schedule for NNSA's offices and contractor sites to review, revise, and finalize draft WAs by the start of each fiscal year. Such a schedule should include specific dates by which NNSA's program offices must transmit draft WAs to the M&O contractors for review, specific dates by which the program offices and M&O contractor finalize any needed revisions to the draft WAs, and specific dates by which the NNSA field offices will receive the draft WAs for final review and issuance before the start of the fiscal year. (Recommendation 1)

The Associate Administrator for Acquisition and Project Management should assess the cause of technical challenges with STRIPES that hinder its usage by program and field offices and contractor sites. As part of its assessment, NA-APM should determine whether a different document management system is needed to facilitate the drafting and

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<sup>46</sup>The FAR requires storage of and ready access to contract documents. Associated DOE and NNSA policy further requires contract documents be stored in DOE's system of record called STRIPES.

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sharing of WAs between NNSA program and field offices and contractor sites. (Recommendation 2)

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## Agency Comments and Our Evaluation

We provided a draft of this report to NNSA for review and comment. In its written comments, reproduced in appendix IV, NNSA concurred in principle with both recommendations. However, NNSA stated that it considers both recommendations to be closed based on the agency's existing processes and actions to date.<sup>47</sup> We reviewed NNSA's existing processes and actions as part of our review and disagree that they fully address the two recommendations. NNSA also provided technical comments, which we incorporated as appropriate.

In its comments on the first recommendation to establish a required schedule for NNSA's offices and contractor sites to review, revise, and finalize WAs, NNSA recognized that the agency does not always successfully meet target deadlines for finalizing WAs. These targets include requirements in its directive on WAs to finalize WAs by the start of the fiscal year or before any new work commences and costs are incurred. NNSA's directive on WAs does not provide for exceptions to meeting this requirement for changes in scope or other delays. NNSA also stated that its current WA processes—which include a recommendation that NNSA program offices distribute draft WAs to NNSA's field offices by August 15 prior to the start of the fiscal year—comply with existing requirements. However, as we reported, NNSA continues to experience challenges finalizing all of its WAs by the start of the fiscal year, contrary to NNSA's M&O contract requirements. We continue to believe that by establishing a required schedule for NNSA's offices and contractor sites to review, revise, and finalize draft WAs by the start of each fiscal year, NNSA could help to better ensure the timely completion of WAs, avoid potential financial risks for contractors, and avoid placing additional burdens on some contractors' resources to undertake duplicative efforts.

In its comments on the second recommendation to assess the cause of technical challenges with STRIPES that hinder its usage by NNSA program and field offices and contractor sites, NNSA acknowledged that there are technical limitations with storing certain contract documents in STRIPES, but noted that there is an authorized exception to the agency's

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<sup>47</sup>GAO will close a recommendation if it determines that an agency has taken sufficient action to address the recommendation.

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mandatory policy requiring the use of STRIPES. Specifically, NNSA stated that DOE authorizes exceptions to maintaining certain contract documents in STRIPES, contingent upon the use of “pointers” in STRIPES to identify where a given document is being stored outside of STRIPES.

We did not receive information from the agency to document whether the WAs we requested included WAs stored in STRIPES or whether NNSA officials used pointers in STRIPES to identify alternative storage locations for the requested WAs outside of STRIPES. Nonetheless, the FAR requires storage of and ready access to contract documents, and associated DOE and NNSA policy specifically requires contract documents be stored in STRIPES as DOE’s system of record. As a result, STRIPES should enable NNSA officials to locate contract documents such as WAs in a timely manner, regardless of whether the document is stored in STRIPES directly or stored elsewhere with a “pointer” identifying the actual storage location outside of STRIPES. In contrast, it took approximately 9 months from our initial requests for the WAs for fiscal years 2019 and 2020 until we received confirmation from NNSA officials that we had a complete list of the WAs and copies of each document.

Further, none of the seven NNSA program offices and only two of seven NNSA field offices that we surveyed reported using STRIPES to store their WAs, and none of these offices referenced using “pointers” in STRIPES to identify where the WAs were stored if stored outside of STRIPES. In addition, as part of an internal quality control view of WAs in fiscal year 2018, an NA-APM official—the office’s subject matter expert on the WA process—recommended that NNSA adopt and use an enterprise-wide electronic document management system (other than STRIPES) to develop, transmit, sign, and store WAs and related documents. The NA-APM official also noted that NNSA’s interoffice working group on the WA process made a similar recommendation during its review of NNSA’s WA process in 2017-2018.

We continue to believe that without an assessment of the causes of the technical challenges associated with the continued use of STRIPES—or an assessment of the need for a different document management system to facilitate the drafting and sharing of WAs between NNSA offices and contractors—NNSA’s program and field offices may continue to have problems complying with the FAR and DOE and NNSA policy on contract document storage and management.

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We are sending copies of this report to the 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 have any questions about this report, please contact me at (202) 512-3841 or [bawdena@gao.gov](mailto:bawdena@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 V.

A handwritten signature in black ink, appearing to read "Allison Bawden". The signature is fluid and cursive, with the first name "Allison" written in a larger, more prominent script than the last name "Bawden".

Allison Bawden  
Director, Natural Resources and Environment

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*List of Requesters*

The Honorable Frank Pallone, Jr.  
Chairman  
The Honorable Cathy McMorris Rodgers  
Republican Leader  
Committee on Energy and Commerce  
House of Representatives

The Honorable Bobby L. Rush  
Chairman  
The Honorable Fred Upton  
Republican Leader  
Subcommittee on Energy  
Committee on Energy and Commerce  
House of Representatives

The Honorable Diana DeGette  
Chairwoman  
The Honorable H. Morgan Griffith  
Republican Leader  
Subcommittee on Oversight and Investigations  
Committee on Energy and Commerce  
House of Representatives

The Honorable Kathy Castor  
House of Representatives



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# Appendix I: Objectives, Scope, and Methodology

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This report reviews the National Nuclear Security Administration's (NNSA) work authorization (WA) process. Specifically, it examines (1) NNSA's efforts to improve its WA process, and (2) the extent to which NNSA uses WAs in its contractor performance evaluation process.

To examine NNSA's efforts to improve its WA process, we reviewed agency documentation on its WA process and interviewed officials from the agency's Office of Acquisition and Project Management (NA-APM) and Office of Management and Budget. We also solicited documentation—including policy directives, guidance, working group minutes, and other available information on NNSA's WA process—from officials at these two offices, officials at NNSA's seven program and seven field offices, and from representatives of NNSA's seven managing and operating (M&O) contractors for NNSA sites.

To examine agency and contractor perspectives on the WA process, we surveyed 21 stakeholders directly involved in the WA process. This included officials at the seven NNSA headquarters-based program offices that issue WAs, officials at the seven NNSA field offices that oversee NNSA's sites, as well as representatives of the seven M&O contractors that manage and operate NNSA's sites.<sup>1</sup> We chose these respondents because they represent all the stakeholders directly involved in developing NNSA WAs for NNSA sites. From this questionnaire, we collected data on satisfaction with coordination between WA stakeholders, satisfaction with the WA revision process, and quality of information contained within the WAs, among other things. See table 4 for a list of topics covered in the questionnaire as well as examples of specific questions we asked.

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<sup>1</sup>For the purposes of this report, we use the term "program office" to collectively refer to the six headquarters-based program offices and one headquarters-based functional office that issue WAs. One NNSA program office—Naval Reactors—does not issue WAs.

**Table 4: Topics Covered in Questionnaire about the National Nuclear Security Administration’s (NNSA) Work Authorization (WA) Process and Examples of Specific Questions Asked**

Topics covered	Specific questions
<b>Training offered on the WA process</b>	Have the staff in your office who work on WAs/Implementation Plans (IP) received training offered by NNSA’s Office of Acquisition and Project Management (NA-APM) to assist your office in drafting WAs/IPs?
<b>Coordination between offices</b>	When drafting your office’s WAs/IPs for fiscal year (FY) 2020, how satisfied or dissatisfied were you with the coordination between your office and NNSA’s field offices? When drafting your office’s WAs/IPs for FY 2020, how satisfied or dissatisfied were you with the coordination, if any, between your office and M&O contractor representatives?
<b>Quality control reviews</b>	NA-APM officials conduct random quality control reviews of draft WAs/IPs. Have your office’s WAs/IPs received NA-APM’s random quality control review(s)?
<b>Timeliness of finalizing WAs</b>	Of the WAs/IPs issued by your office for FY 2020, were all of the WAs/IPs issued by the start of FY 2020 (i.e., October 1, 2019)?
<b>Revision of WAs</b>	Did your office modify or revise any previously issued WAs/IPs for FY 2020 during the course of the fiscal year? If “yes,” did your office use the same formal process used for drafting and issuing its FY 2020 WAs/IPs to make these modifications during the course of the fiscal year? If “no,” what process did your office use instead to modify or revise previously issued WAs/IPs?
<b>Storage of WAs</b>	Did your office store <u>all</u> of its WAs/IPs for FY 2020 in the Department of Energy’s Strategic Integrated Procurement Enterprise System (STRIPES) database? If “no,” what alternative approach did your office use instead to store your WAs/IPs?
<b>Quality of WA/IP Content</b>	How would you rate the <u>quality</u> of each of the following required components and characteristics of the WAs/IPs that your office issued for FY 2020? (See appendix III of this report for more details on this question and associated responses from NNSA officials and contractor representatives.)
<b>Performance monitoring and evaluation</b>	What process(es) does your office use to monitor and evaluate M&O contractor performance throughout the course of the fiscal year against the performance expectations described in your office’s WAs/IPs for FY 2020? Given that NNSA uses various methods to evaluate the performance of its M&O contractors, how important, if at all, are the performance expectations described in your office’s FY 2020 WAs/IPs <u>as an input</u> for monitoring and evaluating M&O contractor performance during FY 2020? How important, if at all, are the performance expectations described in your office’s FY 2020 WAs/IPs for monitoring and evaluating M&O contractor performance <u>as compared to other potential inputs</u> for monitoring and evaluating the same (e.g., performance expectations in the contractor’s Performance Evaluation and Measurement Plan for the given fiscal year)?

**Improvements in WA quality and process and any remaining challenges**

In general, did you notice any *improvements* in the quality of the various components or characteristics of the WAs/IPs issued by your office for FY 2020 as compared to the same aspects of the WAs/IPs issued by your office for FY 2019?

What remaining challenges, if any, in the quality of the components or characteristics of your office's FY 2020 WAs/IPs did you notice?

In general, did you notice any *improvements* in the process for developing and issuing your office's WAs/IPs for FY 2020 as compared to the process for developing and issuing your office's WAs/IPs for FY 2019?

What remaining challenges, if any, in the process of developing and issuing your office's FY2020 WAs/IPs did you notice? *Instructions: Please provide a narrative response describing any process challenges.*

Source: GAO. | GAO-22-103948

The stakeholders we surveyed encompassed the relevant stakeholders for NNSA WAs at NNSA sites; however, the responses they provided are not generalizable to non-NNSA WAs or non-NNSA sites.<sup>2</sup> See table 5 for a full listing of the stakeholders we surveyed.

**Table 5: List of NNSA Stakeholders Involved in the Work Authorization Process**

Stakeholder type	Stakeholder name
NNSA Program Office	Defense Programs (NA-10)
NNSA Program Office	Defense Nuclear Nonproliferation (NA-20)
NNSA Program Office	Emergency Operations (NA-40)
NNSA Program Office	Safety, Infrastructure, and Operations (NA-50)
NNSA Program Office	Defense Nuclear Security (NA-70)
NNSA Program Office	Counterterrorism and Counterproliferation (NA-80)
NNSA Program Office	Information Management (NA-IM)
NNSA Field Office	Kansas City Field Office
NNSA Field Office	Livermore Field Office
NNSA Field Office	Los Alamos Field Office
NNSA Field Office	Nevada Field Office
NNSA Field Office	NNSA Production Office
NNSA Field Office	Sandia Field Office
NNSA Field Office	Savannah River Field Office
NNSA Management and Operation (M&O) Contractor	Consolidated Nuclear Security, LLC
NNSA M&O Contractor	Honeywell Federal Manufacturing & Technologies, LLC

<sup>2</sup>NNSA also issues WAs to contractors at sites overseen by other entities within DOE, such as the Office of Science, and in some cases other entities within DOE issue WAs to the M&O contractors at sites overseen by NNSA. However, the scope of this report is limited to the WAs that NNSA issued to M&O contractors at sites overseen by NNSA field offices.

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**Appendix I: Objectives, Scope, and Methodology**

<b>Stakeholder type</b>	<b>Stakeholder name</b>
NNSA M&O Contractor	Lawrence Livermore National Security, LLC
NNSA M&O Contractor	Mission Support and Test Services, LLC
NNSA M&O Contractor	National Technology and Engineering Solutions of Sandia, LLC
NNSA M&O Contractor	Savannah River Nuclear Solutions
NNSA M&O Contractor	Triad National Security, LLC

Source: GAO analysis of National Nuclear Security Administration (NNSA) information. | GAO-22-103948

To ensure the validity and reliability of the questionnaire, we pretested it with one member of each respondent group (i.e., one program office, one field office, and one M&O contractor). We conducted these pretests to check that (1) the questions were clear and unambiguous, (2) terminology was used correctly, (3) the questionnaire did not place an undue burden on the respondents, (4) the information could feasibly be obtained, and (5) the questionnaire was comprehensive and unbiased. We gave each pretest respondent time to complete the questionnaire on their own, and then had separate telephone meetings with each respondent to review their understanding of each question. We made minor changes to the content of the questionnaire after the three pretests based on the feedback we received. Each respondent who pretested the questionnaire was also given the opportunity to answer the updated questions at the same time that we sent the questionnaire to the remaining officials and contractor representatives.

To supplement the questionnaire and elaborate on the responses we had received, we sent follow-up questions to each respondent by email. These follow-up questions allowed us to obtain additional viewpoints on whether or not training on the WA process would be beneficial; whether there is duplication or overlap between WAs and other program and project planning documents; and the need for document management systems, among other things. We analyzed the responses to our survey to determine average ratings and common responses, and, where relevant, reported the responses to the given question in our report. We received responses to the questionnaire, and follow-up questions as needed, from all 21 stakeholders.

Because we surveyed each of the relevant stakeholders, our survey contains no sampling errors. However, the practical difficulties of conducting any survey may introduce other types of errors, commonly referred to as nonsampling errors. For example, differences in how a particular question is interpreted, the sources of information available to

respondents, or the types of people who do not respond can introduce unwanted variability into the survey results. We took steps in developing the questionnaire, collecting the data, and analyzing them to minimize such nonsampling error.

We also selected a nongeneralizable sample of WAs for fiscal years 2019 and 2020—the 2 most recent fiscal years with finalized WAs at the time of our review—and compared them with requirements contained in NNSA’s directive on WAs.<sup>3</sup> Specifically, we assessed whether each WA was issued by the start of the fiscal year and whether stakeholder signatures were applied in order, consistent with NNSA’s directive. We verified the lists of WAs for fiscal years 2019 and 2020 through NNSA’s program offices.

To evaluate the extent to which the WAs met specific requirements from NNSA’s directive on WAs, we reviewed a sample of WAs. We selected this sample by using a stratified sampling approach to first group the WAs by program office, and then using an intense case sample approach to intentionally choose WAs associated with the largest number of implementation plans (IP) for each program office.<sup>4</sup> We made this decision in part because many requirements for WAs are related to information contained in the associated IPs. To select our sample, we consulted with officials from NA-APM as well as officials with each of NNSA’s seven program offices that issue WAs to determine the full list of WAs that were issued to NNSA sites in fiscal years 2019 and 2020—the 2 most recent fiscal years with finalized WAs at the time of our review. We then determined how each program office organizes its WAs (see graphics in appendix II). Using this information, we were able to intentionally choose the WAs for each program office with the largest number of associated IPs. In cases where this was not relevant—e.g., where each WA was associated with the same IP—we randomly selected a WA. We also ensured that we selected WAs associated with all of NNSA’s sites.

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<sup>3</sup>Each program office labels and organizes how it issues its respective WAs differently. We selected a nongeneralizable stratified and intense case sample based on those differences. See appendix II for graphics depicting how each program office organizes its WAs. NNSA, *Work Authorizations*, Supplemental Directive 412.1 (Washington, D.C.: Jan. 18, 2017).

<sup>4</sup>IPs are attached to WAs and serve as NNSA’s statement of work for its contractors, specifying the scope of and the schedule for the work the contractor will perform.

For our review, we selected 14 of 97 WAs from fiscal year 2019 associated with 32 of 54 IPs from fiscal year 2019, and 14 of 95 WAs from fiscal year 2020 associated with 30 of 51 IPs from fiscal year 2020. For each of these WAs and IPs we reviewed the documents against two specific requirements contained in NNSA's directive on WAs: (1) that WAs are issued by the start of the fiscal year, and (2) that the WAs/IPs are signed first by the program office, then the contractor, and then the field office's contracting officer or representative to finalize the document. We created a rubric for scoring the WAs against the two requirements—i.e., yes or no for each—and two analysts independently reviewed each selected WA and IP. We then compiled the two analysts' reviews into one document to compare the results and confirm agreement on their findings. Because we used a nongeneralizable sample, our findings cannot be used to make inferences about other WAs. However, as the sample includes more than half of the IPs for each fiscal year—and represents WAs and IPs developed by all seven program offices for all seven M&O contractors—we determined that the selection of these WAs was appropriate for our design and objectives and that the selection would generate valid and reliable evidence to support our work.

To examine NNSA's use of WAs in its contractor performance evaluation process, we reviewed all of the required deliverables under the Corporate Performance Evaluation Process for fiscal years 2019 and 2020.<sup>5</sup> Specifically, we reviewed NNSA's contractor performance evaluation guidance for fiscal year 2020 to determine what the guidance advises in relation to the use of WAs for evaluating contractor performance. We then reviewed the 14 performance evaluation and measurement plans—two for each contractor across the 2 fiscal years—to determine whether these plans provided additional guidance on how to use WAs for evaluating contractor performance. We also reviewed the 14 fiscal year 2019 and 2020 performance evaluation reports—two for each of the seven contractors—to look for references to WAs, and more specifically, for references to performance measures contained in WAs, to determine if information in the performance evaluations could be traced back to information in the WAs. We categorized the references we found as either "boilerplate" or "additional." "Boilerplate" are generic references to WAs that are commonly found across a number of different documents, including the performance evaluation reports and the performance

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<sup>5</sup>NNSA, *Corporate Performance Evaluation Process for Management and Operating Contractors*, NAP 540.3 (Washington, D.C.: Dec. 22, 2016).

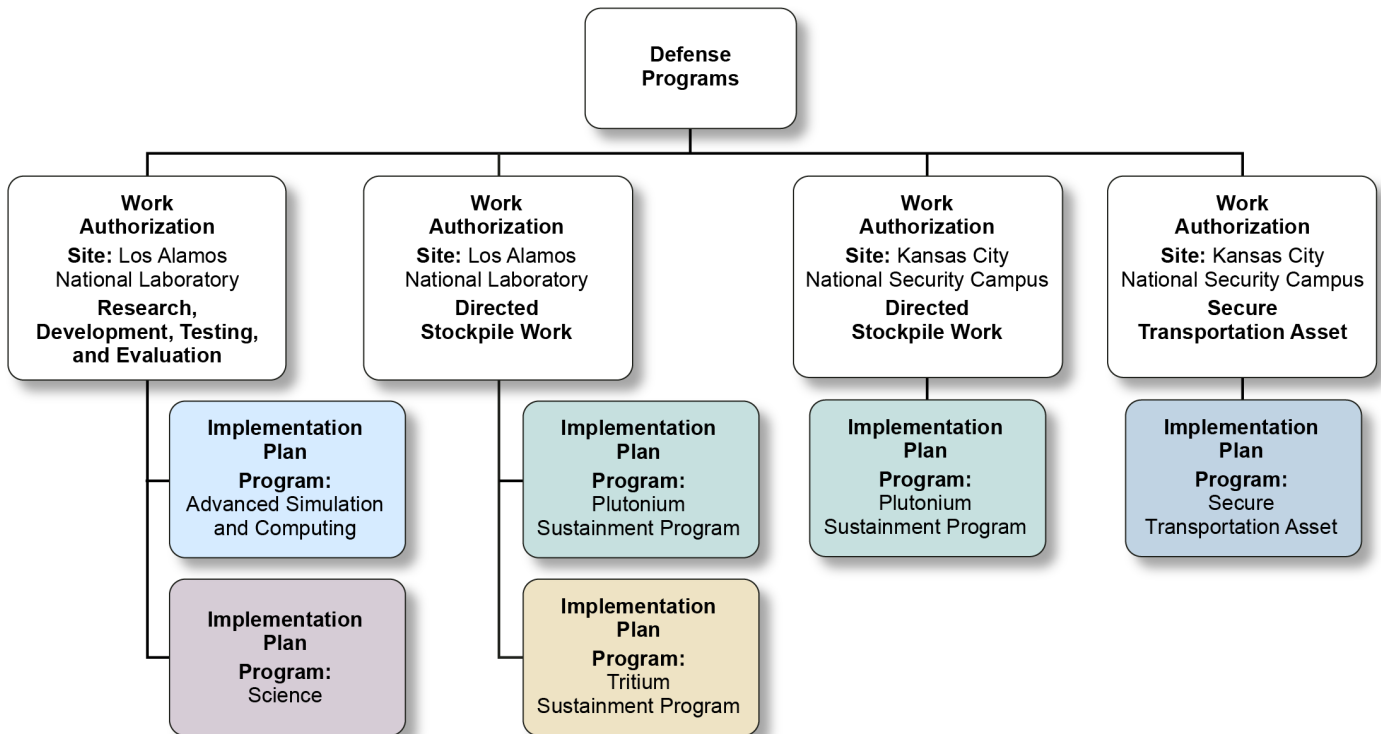
evaluation and measurement plans. “Additional” references are those that may reference a specific WA, but did not include detail on the performance measures contained within the WA. For a more in-depth understanding of how WAs might be used in the evaluation process, we also reviewed the interim feedback reports for each contractor, as well as NNSA’s internal documentation that went into the final performance evaluation reports for one randomly selected contractor. Finally, we interviewed agency officials and reviewed the findings in our most recent prior report on NNSA’s performance evaluation process for M&O contractors to compare against our findings.

We conducted this performance audit from November 2019 to October 2021 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: National Nuclear Security Administration Program Office Organizational Structures for Work

The following pages show graphical depictions of the various organizational structures each National Nuclear Security Administration (NNSA) program office uses to issue its work authorizations (WA) and implementation plans (IP). These graphics are examples and do not depict all WAs and IPs for each office.

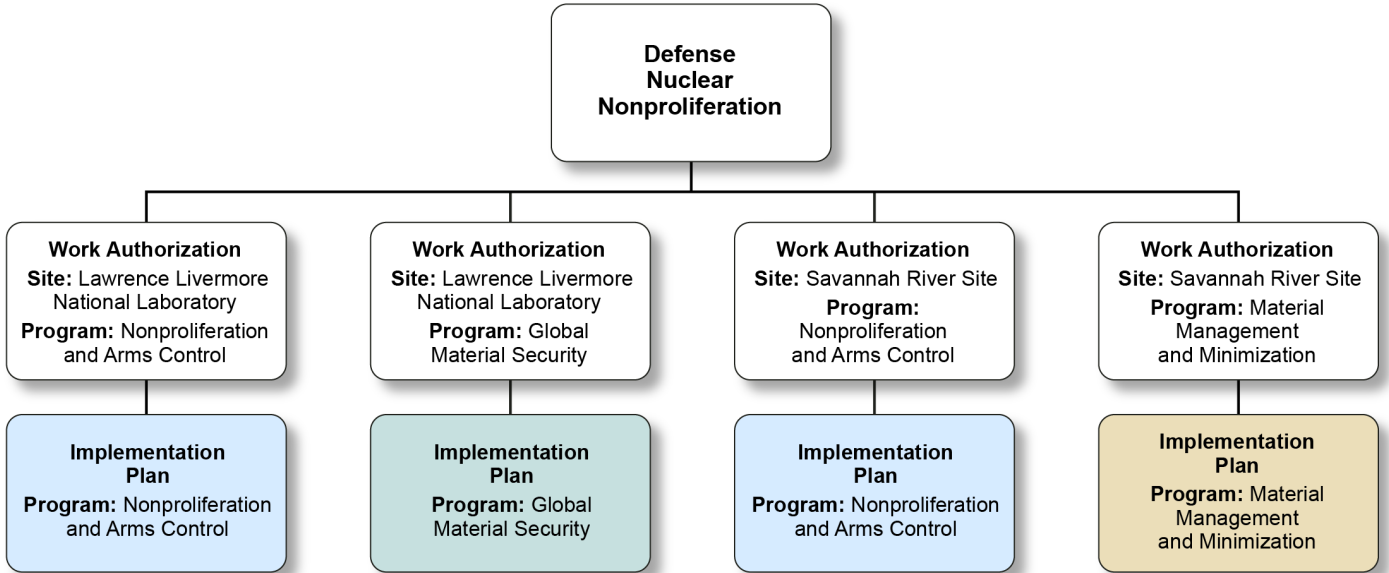
**Figure 6: Example of Organizational Structure for Office of Defense Programs' Work Authorizations and Associated Implementation Plans**



Source: GAO analysis of National Nuclear Security Administration documentation. | GAO-22-103948

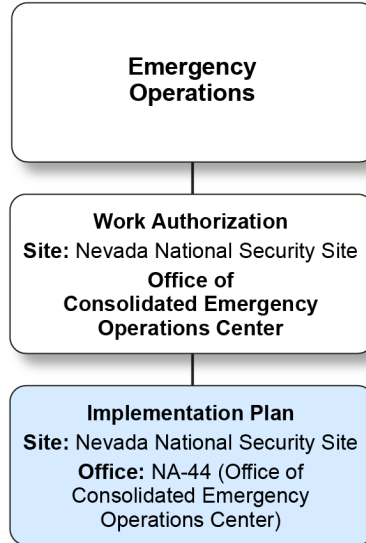


Figure 7: Example of Organizational Structure for Office of Defense Nuclear Nonproliferation's Work Authorizations and Associated Implementation Plans



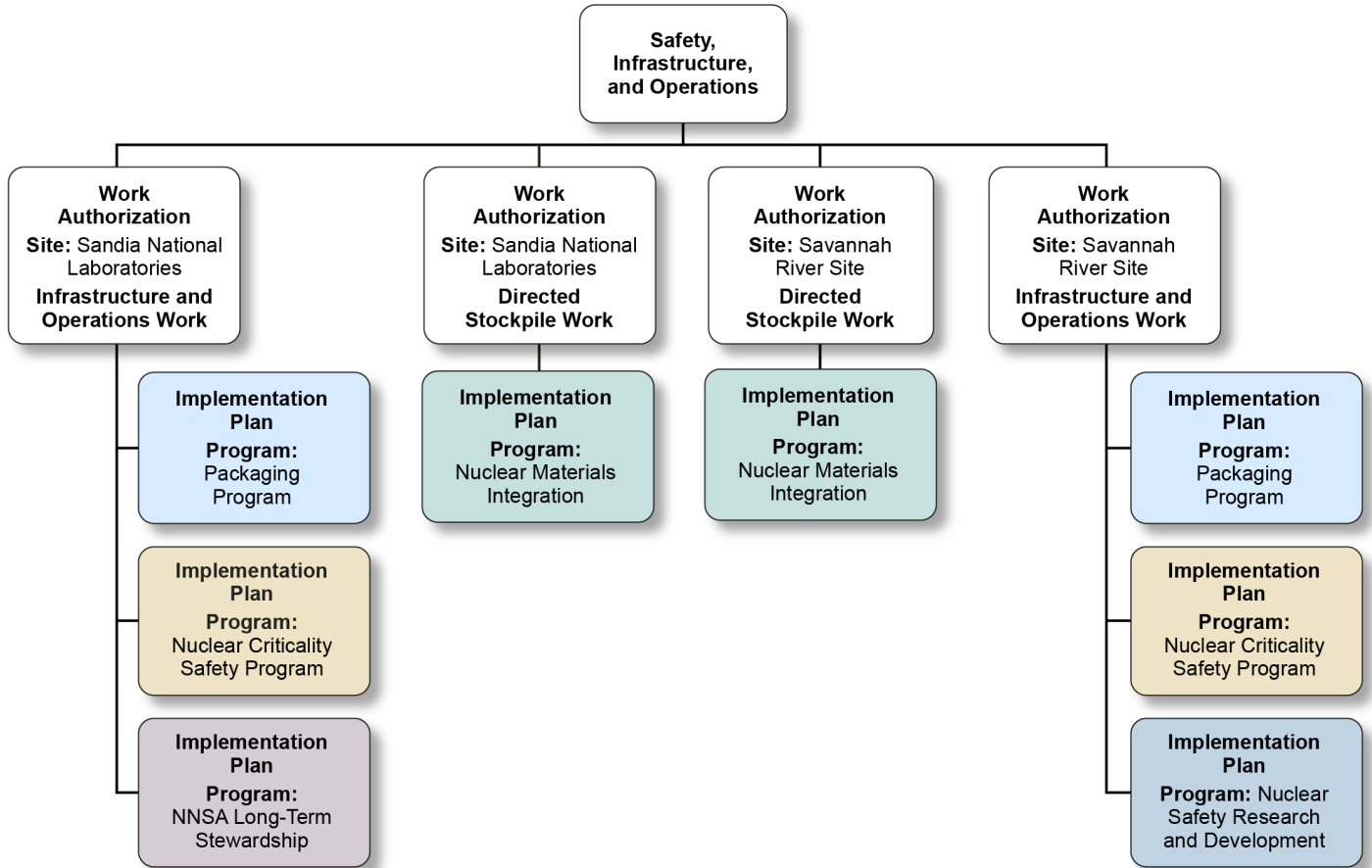
Source: GAO analysis of National Nuclear Security Administration documentation. | GAO-22-103948

**Figure 8: Example of Organizational Structure for Office of Emergency Operations’  
Work Authorizations and Associated Implementation Plans**



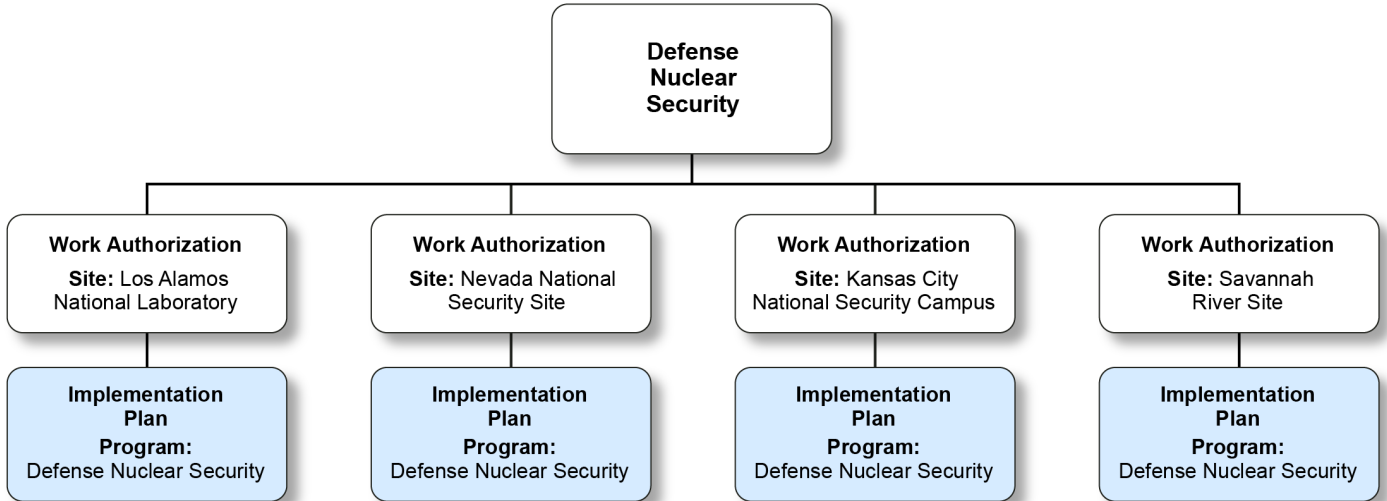
Source: GAO analysis of National Nuclear Security Administration documentation. | GAO-22-103948

Figure 9: Example of Organizational Structure for Office of Safety, Infrastructure, and Operations' Work Authorizations and Associated Implementation Plans



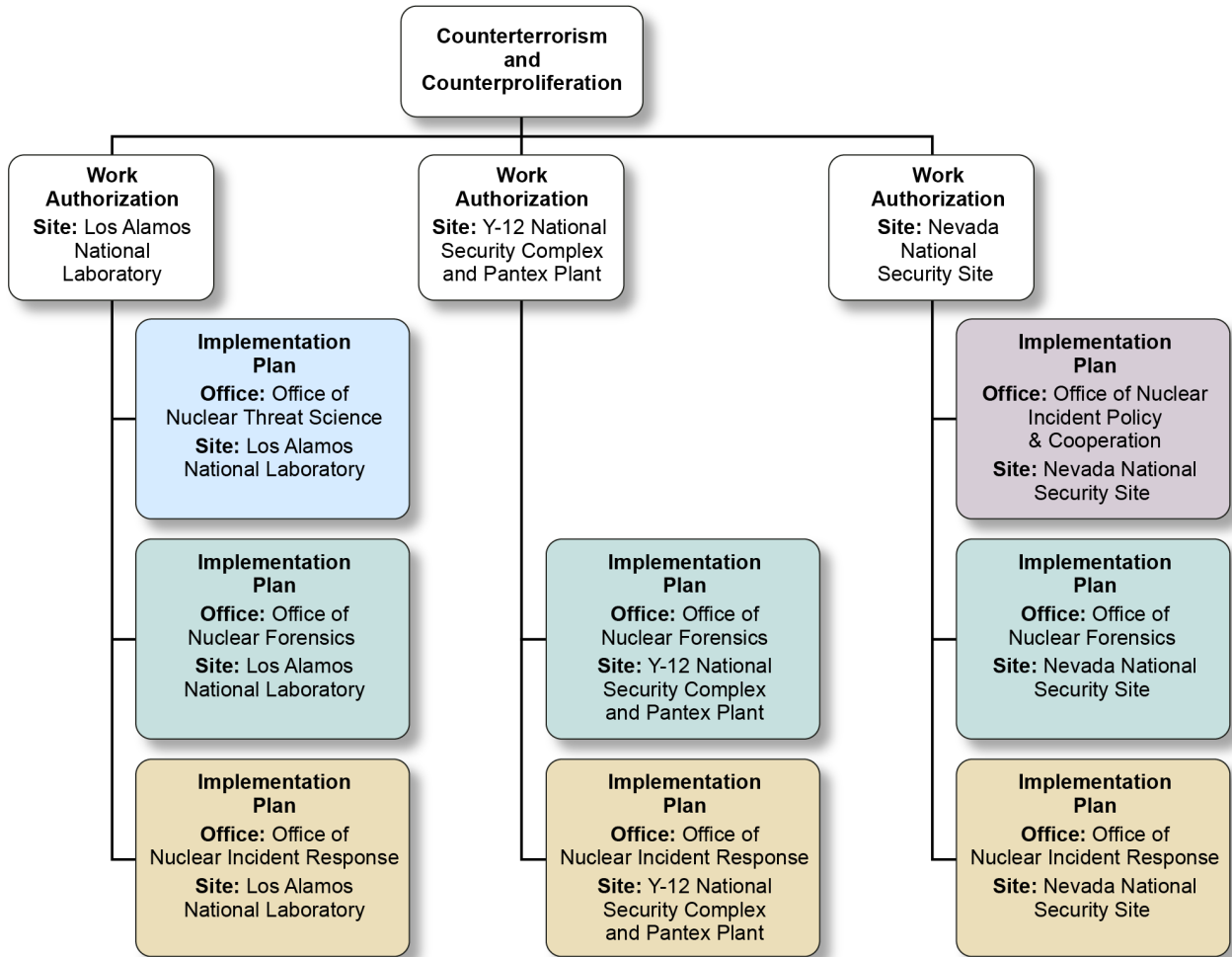
Source: GAO analysis of National Nuclear Security Administration documentation. | GAO-22-103948

Figure 10: Example of Organizational Structure for Office of Defense Nuclear Security's Work Authorizations and Associated Implementation Plans



Source: GAO analysis of National Nuclear Security Administration documentation. | GAO-22-103948

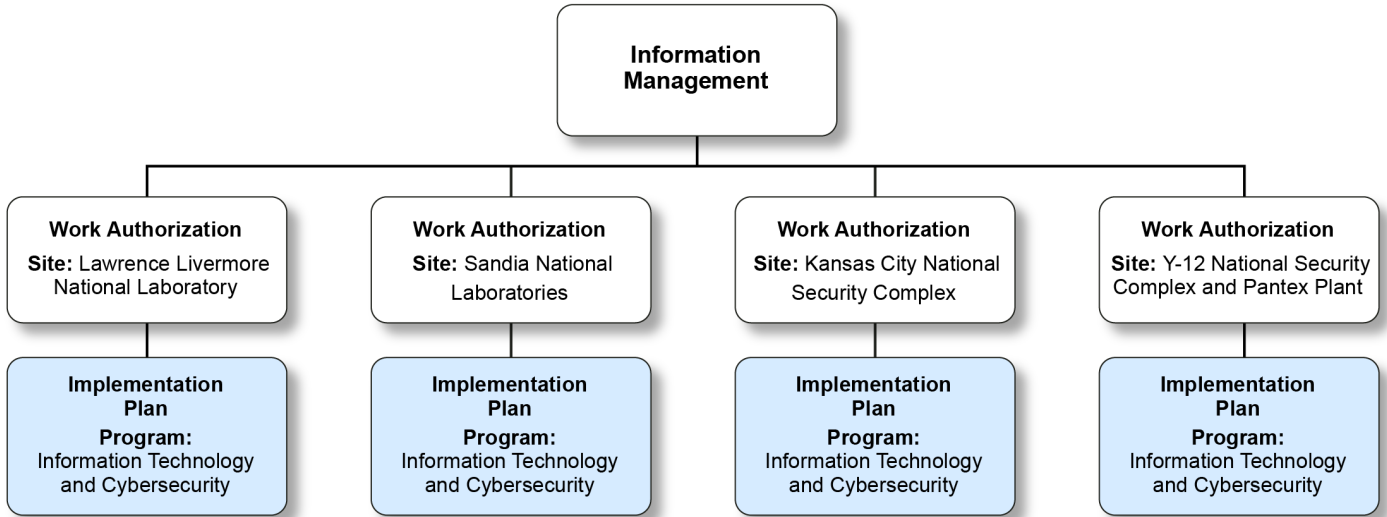
Figure 11: Example of Organizational Structure for Office of Counterterrorism and Counterproliferation’s Work Authorizations and Associated Implementation Plans



Source: GAO analysis of National Nuclear Security Administration (NNSA) documentation. | GAO-22-103948

Note: The Y-12 National Security Complex in Oak Ridge, Tennessee and the Pantex Plant in Amarillo, Texas are both overseen by the NNSA Production Office and as of 2021 are managed and operated under a single contract held by Consolidated Nuclear Security, LLC.

Figure 12: Example of Organizational Structure for Office of Information Management’s Work Authorizations and Associated Implementation Plans



Source: GAO analysis of National Nuclear Security Administration (NNSA) documentation. | GAO-22-103948

Note: The Y-12 National Security Complex in Oak Ridge, Tennessee and the Pantex Plant in Amarillo, Texas are both overseen by the NNSA Production Office and as of 2021 are managed and operated under a single contract held by Consolidated Nuclear Security, LLC.

# Appendix III: Quality Ratings for Work Authorization and Implementation Plan Content

The following table summarizes responses from National Nuclear Security Administration (NNSA) program and field office officials and contractor representatives to GAO's survey question #18 (see appendix I, table 4) on the quality of the content of sections of the work authorizations (WA) and associated implementation plans (IPs) based on those sections specified by NNSA's directive on WAs. There were 21 total respondents, most of whom provided ratings for each of the nine sub-questions.

**Table 6: Responses to Survey Question #18 on the Quality of Various Components and Characteristics of Work Authorizations and Associated Implementation Plans Issued for Fiscal Year 2020**

	Very high quality	High quality	Moderate quality	Low quality	Very low quality
<b>18.1</b> General descriptions of the work to be performed	4	13	4	—	—
<b>18.2<sup>a</sup></b> Cost / price definitions	4	11	5	—	—
<b>18.3</b> Scope definitions	3	16	2	—	—
<b>18.4<sup>a</sup></b> Schedules of key deliverables	4	13	2	—	1
<b>18.5</b> Site-specificity	4	13	4	—	—
<b>18.6<sup>a</sup></b> Linkage to the goals, objectives, strategies, and performance measures contained in the NNSA Strategic Plan, the Future Years Nuclear Security Program, work plans, and other guidance	3	14	3	—	—
<b>18.7</b> Performance expectations	2	14	5	—	—
<b>18.8<sup>a</sup></b> Performance measures	2	13	5	—	—
<b>18.9<sup>a</sup></b> Performance reporting	2	14	3	1	—

Source: GAO | GAO-22-103948

<sup>a</sup>There were 21 total respondents, but row does not total 21 as one respondent did not provide a rating for this sub-question.

The survey included the following preamble for question #18 to orient the survey respondents and help ground the concept of “quality” in the context of WAs/IPs.

***Preamble to Survey Question #18 on the Quality of Work  
Authorization Content***

*The following questions ask about your perspectives on the quality of various required components and characteristics of your office’s WAs/IPs for FY 2020, per NNSA Supplemental Directive 412.1.*

*While there is no single definition for what constitutes “quality” in WAs/IPs, the Guide to the Business Analysis Body of Knowledge® (BABOK® Guide) notes that requirements—such as those contained within WAs/IPs—may be considered to be of higher quality if they are complete, consistent, feasible, testable/measurable, and understandable (among other things).<sup>1</sup>*

*According to the BABOK® Guide:*

- *Complete means “there is enough information to guide further work and at the appropriate level of detail for work to continue.”*
- *Consistent means “the requirement can be met without causing conflict with any other requirements.”*
- *Feasible means it is “possible to implement each requirement within the capabilities and limitations of the technical and operational environment.”*
- *Testable/measurable means “the requirement [is] something that can be confirmed by an examination, analysis, test, or demonstration.”*
- *Understandable means “the requirements [are] clear, concise, simple, and free from ambiguity. All specialized terms [are] well-defined.”*

*With these concepts in mind, please complete the following table.*

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<sup>1</sup>International Institute of Business Analysis, *Guide to the Business Analysis Body of Knowledge®*, 3rd ed. (Pickering, Ontario, Canada: April 2015).



# Appendix IV: Comments from the Department of Energy



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



September 30, 2021

Ms. Allison B. Bawden  
Director, Natural Resources  
and Environment  
U.S. Government Accountability Office  
Washington, DC 20548

Dear Ms. Bawden:

Thank you for the opportunity to review the Government Accountability Office (GAO) draft report "Department of Energy Contracting: NNSA Has Taken Steps to Improve Its Work Authorization Process, but Challenges Remain" (GAO-21-598). The Department of Energy's National Nuclear Security Administration (NNSA) appreciates GAO's recognition of the actions we have taken over the last few years to further operationalize and improve our work authorization (WA) processes. The report highlights the inherent challenges of executing the WA process given the size and complexity of our Management and Operating contracts and the dynamic operating environment.

NNSA will continue to effectively manage the noted operational and systems challenges, while minimizing impacts to our vital missions. The attached Management Decision responds to the specific recommendations in the report. Our subject matter experts have also provided technical and general comments under separate cover for your consideration to enhance the clarity and accuracy of the report. If you have any questions about this response, please contact Dean Childs, Director, Audits and Internal Affairs, at (301) 903-1341.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jill H", is written over a light blue horizontal line.

Jill Hruby

Enclosure

Enclosure

NATIONAL NUCLEAR SECURITY ADMINISTRATION  
Management Decision

"Department of Energy Contracting: NNSA Has Taken Steps to Improve Its Work  
Authorization Process, but Challenges Remain" (GAO-21-598)

The Government Accountability Office recommends the Department of Energy National Nuclear Security Administration (NNSA):

**Recommendation 1:** Establish a required schedule for NNSA's offices and contractor sites to review, revise, and finalize draft Work Authorizations (WA) by the start of each fiscal year. Such a schedule should include specific dates by which NNSA's program offices must transmit draft WAs to the Management and Operating (M&O) contractors for review, specific dates by which the program offices and M&O contractor finalize any needed revisions to the draft WAs, and specific dates by which the NNSA field offices will receive the draft WAs for final review and issuance before start of the fiscal year.

**Management Response:** Concur in Principle. While we acknowledge that established targets were not always met, a more detailed schedule would not negate the timing challenges inherent in the WA process. NNSA follows Supplemental Directive 412.1, *Work Authorizations*, which requires WAs be generated and issued to the contractor before the start of the fiscal year or as early in the fiscal year as possible, subject to programmatic needs. NNSA also follows DOE Order 412.1A, *Work Authorization System*, which requires authorizations for work planned in the current fiscal year to be issued by the beginning of the fiscal year to the maximum extent possible. Our current processes comply with these requirements, and a target date to provide draft WAs to field offices was established. As noted in the report, delays in meeting this target were typically caused by scope and funding changes, or other potentially unavoidable delays, not by the lack of a schedule or targets. Despite these inherent challenges, we identified no negative impacts to our vital missions, and we will continue to closely monitor and manage the WA process, while recognizing the potential for unavoidable delays. NNSA considers this recommendation closed.

**Recommendation 2:** Assess the cause of technical challenges with the Strategic Integrated Procurement Enterprise System (STRIPES) that hinder its usage by program and field offices and contractor sites. As part of its assessment, the Office of Acquisition and Project Management should determine whether a different document management system is needed to facilitate the drafting and sharing of WAs between NNSA program and field offices and contractor sites.

**Management Response:** Concur in Principle. NNSA and the Department have already assessed, and are well aware of, the STRIPES technical limitations that create challenges handling the size and complexity of the M&O contract documents. To address these limitations, the Department has authorized an exception to keeping contract documents in STRIPES. Specifically, the exception allows the storage of documents, such as WAs, outside of STRIPES,

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contingent upon the use of “pointers” in STRIPES that provide the documents’ locations. NNSA is not aware of any documents that were stored without the appropriate pointers.

The concern reported by the auditors is unique to the GAO audit approach, which requested thousands of contract-related documents covering multiple years in a short timeframe. NNSA does not have an on-going need to quickly download this volume of documents to support its missions. Further, we have identified no major concerns executing the WA process using STRIPES, together with the approved exception. While efficiency can always be improved by new and faster systems, NNSA has determined that there is no clear business case for immediate changes to the current systems and processes used for storing WAs. NNSA considers this recommendation closed.

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# Appendix V: GAO Contact and Staff Acknowledgments

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## GAO Contact

Allison B. Bawden, (202) 512-3841 or [bawdena@gao.gov](mailto:bawdena@gao.gov)

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## Staff Acknowledgments

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Washington, DC 20548

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## Strategic Planning and External Liaison

Stephen J. Sanford, Managing Director, [spel@gao.gov](mailto:spel@gao.gov), (202) 512-4707  
U.S. Government Accountability Office, 441 G Street NW, Room 7814,  
Washington, DC 20548

