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Congressional Committees

Nuclear Supply Chain: DOE Has Not Used Its Enhanced Procurement Authority but Is Assessing Potential Use

The U.S. government has identified a trend toward using a non-domestic supply chain for non-nuclear components of nuclear weapons at the same time that adversaries are becoming increasingly sophisticated, according to documents from the Department of Energy (DOE) and its National Nuclear Security Administration (NNSA). NNSA has identified heightened risks for the supply chain for these components, including the possibility that a counterfeit or sabotaged component could cause a nuclear weapon to malfunction or that an adversary could gain access to DOE's classified information by exploiting the supply chain for the department's information technology infrastructure.

NNSA is a separately organized agency within DOE that is responsible for the management and security of the nation's nuclear weapons stockpile as well as for nonproliferation efforts.¹ In keeping with its broader missions, NNSA is responsible for strategic management, safeguards, and security at government facilities where nuclear stockpile management and nonproliferation activities are performed. NNSA's nuclear security enterprise includes eight sites—government-owned research and development laboratories, nuclear production plants, and a test site. NNSA is responsible for overseeing production and procurement activities undertaken by the management and operating (M&O) contractors at these sites as well as for managing its own direct procurement activities.²

DOE, NNSA, and its M&O contractors have several tools available to help manage supply chain risks. In addition, the National Defense Authorization Act for Fiscal Year 2014 (the act), provides the Secretary of Energy an enhanced procurement authority.³ The authority allows the Secretary, in the interest of national security, to exclude a supplier who may present a significant supply chain risk from procurements of covered systems. Covered systems are primarily nuclear weapons, components, and items associated with the design, production, and maintenance of such weapons; items associated with the design and development of

¹For example, NNSA develops and tests new technologies to help the United States ensure against proliferation of nuclear weapons components and materials and monitor compliance with arms control agreements.

²M&O contracts are agreements under which the government contracts for the operation, maintenance, or support, on its behalf, of a government-owned or -controlled research, development, special production, or testing establishment wholly or principally devoted to one or more of the major programs of the contracting agency. 48 C.F.R. § 17.601 (2018).

³Pub. L. No. 113-66, § 3113, 127 Stat. 672, 1053 (2013) (codified as amended at 50 U.S.C. § 2786 (2018)).

nonproliferation and counterproliferation systems; and certain information technology systems. The Secretary is not required to provide the supplier with a reason for exclusion or withholding of consent, and the decision is not subject to review in federal court.

Under the enhanced procurement authority, the Secretary may exclude suppliers from a procurement made directly by DOE or NNSA, or indirectly by one of its M&O contractors, either by withholding consent to use a particular supplier or by directing that the supplier be excluded from the procurement. According to NNSA officials, DOE does not typically make direct procurements of systems covered by the enhanced procurement authority and previously delegated responsibility for assessing its potential use to NNSA. In circumstances in which DOE would use the enhanced procurement authority, the Secretary must notify appropriate parties of the action and the basis for the action only to the extent necessary to carry out the action. The Secretary must also notify other federal agencies responsible for a procurement that may be subject to the same or similar supply chain risk in a manner and to the extent consistent with the requirements of national security. The act states that the authority shall terminate on the date that is 4 years after its effective date of June 24, 2014; therefore, the authority terminated on June 24, 2018.⁴

The act also includes a provision for us to report on DOE's use of the enhanced procurement authority and on the status of any previous recommendations we have made in this area. We previously found that, as of May 2016, the Secretary of Energy had not used the enhanced procurement authority and that DOE had not developed processes for using the authority.⁵ Further, we found that DOE and NNSA had not fully assessed the circumstances under which the authority might have been useful or examined whether adequate resources were in place for its use. We recommended in August 2016 that DOE direct NNSA to assess the circumstances that might warrant using the enhanced procurement authority and take additional actions, based on the results, such as developing processes to use the authority and examining whether the agency had adequate resources for doing so. DOE and NNSA agreed with our recommendation. This report updates our previous work by examining the extent to which DOE used its enhanced procurement authority and assessed the circumstances and factors that officials reported affecting its use.

To examine the extent to which DOE has used its enhanced procurement authority and assessed circumstances and factors that officials reported affecting its use, we reviewed the statutory requirements for using the enhanced procurement authority. We reviewed our August 2016 report and its supporting documentation. We also reviewed documentation from DOE and NNSA efforts to address the recommendation we made in that report. We interviewed DOE and NNSA officials involved with any decision to use the authority, including officials from DOE's Offices of Management, the Chief Information Officer, and Intelligence and Counterintelligence, as well as officials from NNSA's Office of Acquisition and Project Management and one federal field office that oversees one of NNSA's M&O contractor sites. Specifically, we interviewed officials from the Kansas City Field Office because the office has a role in overall supply chain risk management efforts for NNSA. We interviewed these officials to determine the extent to which DOE has used the authority and their views on what opportunities to use the authority, if any, may have been identified since May 2016. We also interviewed these officials to determine

⁴A House of Representatives bill for the National Defense Authorization Act for Fiscal Year 2019 would extend the authority until June 30, 2023. H.R. 5515, 115th Cong. § 3117 (2018).

⁵GAO, *Nuclear Supply Chain: DOE Should Assess Circumstances for Using Enhanced Procurement Authority to Manage Risk*, [GAO-16-710](#) (Washington, D.C.: Aug. 11, 2016).

what actions NNSA has taken to assess circumstances that may warrant use of the authority and factors that officials identified as affecting DOE and NNSA's use of the authority.

We conducted this performance audit from February 2018 to August 2018 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

The Secretary of Energy may exercise the enhanced procurement authority only after fulfilling the following requirements:

- obtaining a risk assessment that demonstrates that there is a significant supply chain risk to a covered system;
- making a determination in writing, in unclassified or classified form, that the use of the authority is necessary to protect national security by reducing supply chain risk; less restrictive measures are not reasonably available to reduce the risk; and, in a case in which the Secretary plans to limit disclosure of information, the risk to national security of the disclosure of the information outweighs the risk of not disclosing the information; and
- submitting to appropriate congressional committees, not later than 7 days after the date on which the Secretary makes the determination, a notice of such determination, in unclassified or classified form, which includes a description of the agency's needs, a summary of the risk assessment, and the basis for the determination.

DOE, NNSA, and M&O contractors may identify and manage supply chain risks in various ways other than by exercising the enhanced procurement authority. For example:

- DOE's Office of Intelligence and Counterintelligence supports the department by conducting intelligence and counterintelligence activities. The Office of Intelligence and Counterintelligence can provide information to NNSA and M&O contractors when there are potential issues related to a "foreign nexus" of a supplier or potential supplier.⁶ If a foreign nexus is identified, the Office of Intelligence and Counterintelligence can perform an in-depth evaluation to determine whether the supplier poses a risk to the supply chain.
- NNSA and M&O contractor representatives told us that, as nonfederal entities, M&O contractors are not subject to the same procurement restrictions as federal entities, and M&O contractors may develop lists of approved suppliers of nuclear weapons components and certain information technology systems. M&O contractor representatives we interviewed said that they add suppliers to the list after an evaluation

⁶According to DOE regulations, a foreign nexus refers to "specific indications that a covered person is or may be engaged in clandestine or unreported relationships with foreign powers, organizations or persons, or international terrorists; contacts with foreign intelligence services; or other hostile activities directed against DOE facilities, property, personnel, programs or contractors by or on behalf of foreign powers, organizations or persons, or international terrorists," 10 C.F.R. § 709.2 (2018). See also DOE Order 475.1, which establishes Counterintelligence Program requirements and responsibilities for DOE, including NNSA.

of their ownership or management based on publicly available data and a review of their capability to meet technical and quality assurance requirements.

NNSA officials told us that they could exclude a supplier from a procurement using the responsible supplier requirement and suspension and debarment procedures in the Federal Acquisition Regulation. However, unlike the enhanced procurement authority, these mechanisms are not specific to managing supply chain risks for procurements of covered systems but rather general mechanisms applicable to any procurement action. Further, these mechanisms may not provide NNSA the ability to act on security-related information without potentially harming national security by making this information public when giving a reason for excluding a supplier or being subject to review in federal court. Specifically:

- **Responsible supplier requirement.** Under the Federal Acquisition Regulation, a federal entity can contract only with a “responsible” supplier.⁷ According to DOE officials, a supplier that presents a supply chain risk may not be considered a responsible supplier and may be excluded from a federal contract for a covered system. NNSA officials stated if they excluded a supplier for not meeting the responsible supplier requirements, NNSA would likely have to disclose the reasons for not considering a supplier to be responsible and the decision may be challenged in a bid protest.
- **Suspension and debarment.** These are tools that agencies may use to protect the government’s interests from suppliers that are not responsible by excluding individuals, contractors, and grantees from receiving federal contracts, grants, and other forms of financial assistance based on various types of misconduct such as fraud, bribery, tax evasion, and any other offense indicating a lack of business integrity. A suspension is a temporary exclusion pending the completion of an investigation or legal proceeding that generally may not last longer than 18 months. A debarment is exclusion for a reasonable, specified period depending on the seriousness of the cause, but which generally should not exceed 3 years. Typically, according to NNSA officials we interviewed, suspension and debarment occur for publicly known facts that may be from public indictments and convictions rather than from intelligence information and may be challenged in federal court.

DOE Has Not Used Its Enhanced Procurement Authority, but NNSA Has Taken Actions to Assess Circumstances That May Warrant Use

NNSA Identified a Circumstance That May Have Warranted Use of Its Enhanced Procurement Authority, but the Circumstance Was Resolved Another Way

DOE and NNSA officials stated that DOE has not used its enhanced procurement authority. Since our August 2016 report, NNSA officials identified one circumstance that may have warranted using its enhanced procurement authority to address supply chain risks. However, NNSA officials stated that the circumstance was resolved in another way without DOE and NNSA using the authority. Specifically, officials stated that NNSA considered using the authority to manage a circumstance related to NNSA’s procurement of information security products from

⁷The Federal Acquisition Regulation provides that “[n]o purchase or award shall be made unless the contracting officer makes an affirmative determination of responsibility.” 48 C.F.R. §9.103(b) (2018). Additionally, under the Competition in Contracting Act, federal agencies may award procurement contracts only to “responsible bidders” or “responsible sources.” 10 U.S.C. §2305(b)(3) (2018) and 41 U.S.C. §3702(b) (2018) (“responsible bidders” in sealed bidding); 10 U.S.C. §2305(b)(4)(C) (2018) and 41 U.S.C. §3703(c) (2018) (“responsible sources” in negotiated procurements).

a supplier that they believed was compromised by a foreign government. NNSA took initial actions to determine if the authority would be appropriate to manage the risk of acquiring products from this supplier.

Before NNSA determined whether the enhanced procurement authority would be appropriate to manage the risk, the circumstance was addressed across the federal government through a U.S. Department of Homeland Security directive and a federal law. Specifically, the department issued a directive in September 2017 for all federal executive branch departments and agencies to discontinue any use of and remove certain information security products of the supplier from all federal information systems.⁸ Further, the National Defense Authorization Act for Fiscal Year 2018 prohibits federal government entities, as of October 1, 2018, from using hardware, software or services developed or provided by the supplier.⁹ These actions eliminated the need for NNSA to continue evaluating the potential use of the authority in this specific circumstance.

NNSA Has Taken Actions to Assess Circumstances That May Warrant Using the Authority, and Officials Identified Factors Affecting Its Use

NNSA officials we interviewed stated that, in response to our August 2016 recommendation, they are drafting a report that when final—as planned for October 2018—will document their assessment of circumstances that may warrant using the enhanced procurement authority.¹⁰ NNSA officials said they were not aware of any specific existing circumstance that would require the use of the authority to manage supply chain risks, but there may be potential circumstances in which the authority could be applicable and useful. In particular, NNSA officials stated that the authority could be useful for managing risks associated with procurements managed directly by NNSA instead of its M&O contractors.

NNSA and federal field office officials we interviewed stated that M&O contractors do not need the enhanced procurement authority to manage supply chain risks at the contract or subcontract level. M&O contractors generally have their own means of managing supply chain risks through their procurement processes, according to NNSA and federal field office officials. Specifically, since these contractors are nonfederal entities, they are not subject to many of the same procurement restrictions as federal entities and have the ability to exclude a supplier that poses a supply chain risk. Thus, when procuring parts from suppliers, the contractors may not be required to disclose security-related reasons when explaining why certain suppliers were not selected. When M&O contractors establish subcontracts with suppliers, the contractors often can terminate the subcontract at any time for convenience without providing a reason.¹¹

⁸According to the directive, federal information systems include all systems used or operated by an agency, by a contractor of an agency, or by an organization on behalf of an agency. See Department of Homeland Security, Binding Operational Directive BOD-17-01 (Washington, D.C.: Sept. 13, 2017).

⁹Pub. L. No. 115-91, § 1634 (2017).

¹⁰NNSA officials explained that DOE delegated the assessment to NNSA because DOE does not typically directly procure systems covered by the enhanced procurement authority.

¹¹A buyer, such as an M&O contractor, may terminate a subcontract with a supplier for convenience if the buyer determines that termination is in the buyer's best interest, through no fault of the supplier. The exercise of this right generally entails some compensation for the supplier. In some cases, such action requires NNSA's consent. Besides terminating for convenience, an M&O contractor may terminate a subcontract with a supplier for cause in the event of a default by the supplier, if the supplier fails to comply with any subcontract terms and conditions, or if the supplier fails to provide the M&O contractor with adequate assurances of future performance. In a case of termination for cause, unlike termination for convenience, the supplier can obtain information about the reason for the termination.

NNSA officials stated that direct procurements for supplies—those that do not involve an M&O contractor—make up less than 10 percent of NNSA’s budget. They also said that such procurements for covered systems are sometimes for off-the-shelf information technology support systems and other supplies. Though NNSA makes fewer direct procurements for supplies, officials identified examples in which the authority could be applicable and useful. For example, NNSA installs portable radiation monitors in other countries to detect any movement of radiological materials across international borders. According to NNSA officials, some of the contracts for these monitors require that the contractor use local vendors. NNSA officials stated that because of the requirement to use local vendors, these nonproliferation-related contracts may be subject to risks that could be addressed by the enhanced procurement authority. Further, NNSA directly procures supplies for its Office of Secure Transportation, which is responsible for the safe and secure transport of government-owned special nuclear material within the contiguous United States.¹² NNSA officials stated there is potential to use the authority in cases where intelligence information comes to light that demonstrates a supplier to be a risk and where other mechanisms for managing the risk may not allow NNSA to eliminate the supplier from the contract without sharing the intelligence information.

Although NNSA officials identified circumstances for which the enhanced procurement authority may be useful, they also identified factors affecting their use of the authority. First, NNSA officials stated that the authority would terminate in June 2018, so DOE and NNSA would be unable to use it if a circumstance arose after that date. Second, NNSA officials stated that, to eliminate a supplier from the competitive pool, they would likely need a significant amount of time to gain the Secretary of Energy’s approval to use the authority as outlined in the statutory requirements. NNSA officials stated that the authority might be more useful if approval were delegated to a lower level than the Secretary. According to these officials, this change may streamline the approval process and make using the authority less likely to delay ongoing procurement actions. NNSA officials also stated that they interpreted the authority to apply to a specific procurement action for which a specific supply chain risk has been identified. However, a risk pertaining to a certain supplier of an information technology support system may be present across all existing or yet-to-be-awarded contracts that also include that supplier. NNSA officials stated that the authority might be more useful if it could apply to all current and future contracts and subcontracts instead of solely the contract for which NNSA identified the risk. Further, NNSA officials stated that with information technology procurements and associated cybersecurity risks, the enhanced procurement authority may be a better alternative to debarment because of the debarment process’s length of time and requirement to disclose reasons for the debarment.

DOE Office of Management officials also stated that the enhanced procurement authority might be more useful if it included several changes. Consistent with what NNSA officials told us, DOE officials agreed that approval should be delegated to a lower level than the Secretary—specifically to DOE and NNSA senior procurement executives. DOE officials stated that, although DOE does not currently directly manage any covered system procurements, broadening the definition of “covered system” to include information technology systems that are not directly part of the national security systems could make the authority more useful for

¹²Special nuclear material is material that can be used in nuclear weapons, such as plutonium, uranium-233, and highly enriched uranium (uranium that is enriched to over 20 percent concentration of uranium-235).

DOE.¹³ Officials further stated that the authority would be more useful if it specified that GAO does not have bid protest jurisdiction for procurements that use the authority.¹⁴

NNSA officials told us that, as a result of conducting their assessment and identifying circumstances for which the enhanced procurement authority may be useful, they have communicated to congressional staff that they believe extending the authority beyond its June 2018 expiration date would be beneficial. A House of Representatives bill for the National Defense Authorization Act for Fiscal Year 2019 would extend the authority until June 2023.¹⁵ NNSA officials also said that the report they expect to complete in October 2018 may include suggestions Congress could consider for further amending the authority in future legislation to address the factors affecting the authority's use described above and make it more useful for managing supply chain risks.

Agency Comments

We provided DOE and NNSA with a draft of this report for review and comment. DOE had no comments on the draft report. NNSA provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Energy, and other interested parties. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff members have any questions about this report, please contact me at (202) 512-3841 or 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 include Hilary Benedict (Assistant Director), Elizabeth Luke (Analyst in Charge), Antoinette Capaccio, Pamela Davidson, Cynthia Norris, and Thomas Twambly.



Allison B. Bawden
Director, Natural Resources and Environment

List of Committees

The Honorable John McCain
Chairman

¹³The term "covered system" includes national security systems and components of such systems as well as certain related items such as those associated with the design, development, production, and maintenance of nuclear weapons or components of nuclear weapons; the surveillance of the nuclear weapon stockpile; and the design and development of nonproliferation and counterproliferation programs and systems.

¹⁴GAO provides an objective, independent, and impartial forum for the resolution of disputes concerning the award of federal contracts. We did not evaluate and take no position on DOE and NNSA officials' suggestion that the application of the enhanced procurement authority should not be subject to GAO's bid protest jurisdiction.

¹⁵H.R. 5515, 115th Cong. § 3117 (2018).

The Honorable Jack Reed
Ranking Member
Committee on Armed Services
United States Senate

The Honorable Lisa Murkowski
Chairman

The Honorable Maria Cantwell
Ranking Member
Committee on Energy and Natural Resources
United States Senate

The Honorable Lamar Alexander
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The Honorable Dianne Feinstein
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United States Senate

The Honorable Mac Thornberry
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The Honorable Adam Smith
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The Honorable Frank Pallone
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