U.S. Government Accountability Office

National Nuclear Security Administration: Agency Should Improve Cost Growth Notification Process

GAO-25-107767
Q&A Report to the Committee on Armed Services, House of Representatives
September 30, 2025

Why This Matters

Over the next 2 decades, the United States plans to spend tens of billions of dollars to modernize its nuclear weapons stockpile and the research and production infrastructure on which its stockpile programs depend. The National Nuclear Security Administration (NNSA)—a separately organized agency within the Department of Energy (DOE)—is responsible for managing these efforts. The weapons and the infrastructure used to produce them are aging, with some facilities having been in operation since the 1940s and some weapons in the active nuclear stockpile having been initially fielded in the 1970s.

Since 2011, NNSA has been required by law to report on cost growth for certain construction projects and nuclear weapons acquisition programs. NNSA must notify the congressional defense committees when these projects and programs have set cost baselines and when costs will exceed certain thresholds relative to these baselines. This provision is similar to the Nunn-McCurdy Act, which requires the Department of Defense (DOD) to report on certain cost growth for major defense acquisition programs.

House Report 118-529 includes a provision for us to review NNSA's cost growth notification processes. Our report assesses NNSA's implementation of this provision and opportunities NNSA has identified to improve its cost growth notification requirements.

Key Takeaways

- NNSA has not implemented effective processes to manage cost growth notifications, and this has led to inconsistent communication with congressional committees about growth in defense-funded construction projects. We identified 14 baselined construction projects that fall within the provision's criteria. Of these, seven have exceeded or are likely to exceed the threshold for a cost growth notification. However, NNSA has notified the committees that two of these projects will exceed cost baselines.
- NNSA has three weapons acquisition programs that meet the reporting criteria. None of these have experienced reportable cost growth since 2016. In 2016, one weapons alteration program—the W88 Alteration 370—reported cost growth because of a change in program scope. However, the law in force at the time did not require a congressional notification.
- NNSA officials responsible for the cost growth reporting said work is under way to implement a process, including the use of templates, for congressional notifications for cost growth in construction projects. Additional templates and a process for reporting cost growth for weapons programs are in the early stages. NNSA officials, however, could not provide a timeline for completion.

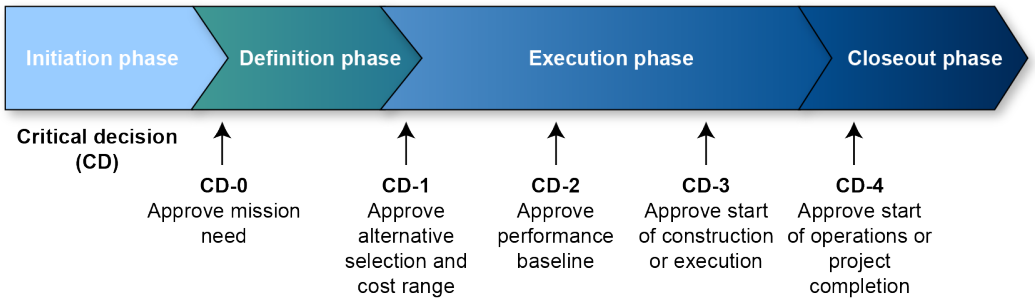
- We are making three recommendations to NNSA, including that it complete implementation of a process for reporting timely cost growth notifications.

How does NNSA manage and estimate costs for construction projects?

NNSA manages construction projects that are estimated to cost more than $50 million as capital asset acquisitions. DOE's project management order covers such acquisitions.[1] Some of NNSA's major capital asset acquisitions are for major items of equipment. While NNSA manages these under DOE's project management order, they typically do not incur construction costs.[2]

DOE's order prescribes three management phases—initiation, definition, and execution—further divided into four "critical decision" (CD) milestones (see fig. 1). Within the execution phase are two CD points, designated CD-2 "Approve Performance Baseline" and CD-3 "Approve Start of Construction." These are usually, but not always, decided together. During these points, NNSA is required to refine its preliminary estimates of the project's scope, schedule, and total cost and establish a performance baseline to measure the project's actual performance against this baseline.[3]

Figure 1: Acquisition Phases for National Nuclear Security Administration Construction Projects



Source: Department of Energy documentation. | GAO-25-107767

Note: CD-2 and CD-3 are usually, but not always, decided at the same time.

During the execution phase, a project may encounter unforeseen or unplanned challenges that affect its ability to meet its performance baseline. In such cases, NNSA must formally approve a change to the project's baseline (referred to as "rebaselining" a project or a "baseline change"). As part of this process, the contractor executing the work on NNSA's behalf first proposes new cost and/or schedule estimates. NNSA project and management officials review these proposed estimates and conduct an independent project review and cost estimate (or cost review). NNSA project officials then reconcile these estimates and propose a new cost and schedule baseline to NNSA or DOE senior management, depending on the project's revised cost. Once approved, this becomes the project's new performance baseline.

For projects estimated to cost $100 million or more, NNSA's Office of Cost Estimating and Program Evaluation (CEPE) performs the independent cost estimate through CD-1, and DOE's Office of Program Management performs those conducted as part of CD-2 and after.

For projects under $100 million, CEPE performs all reviews of the independent cost estimates from CD-0 through CD-4.[4] For projects that are estimated to cost greater than $500 million, or that have a total lifetime cost greater than $1 billion, DOE's Office of Program Evaluation conducts the independent cost estimate and CEPE reviews it, according to agency officials.[5]

Under DOE's project management order, any project that requires rebaselining must conduct an independent and objective root cause analysis to determine the underlying contributing causes of the cost overrun and develop formal corrective

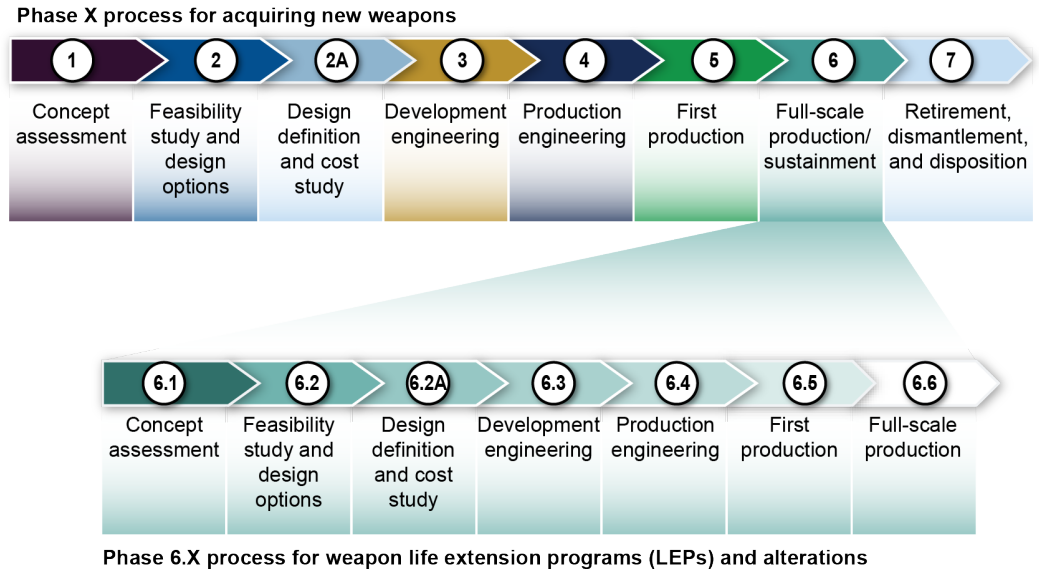
action plans to address these causes. According to a DOE report, a root cause analysis is a process involving the individuals knowledgeable of and directly responsible for managing DOE contracts and projects and who can answer a challenging series of questions as to why a situation, event, or condition existed.[6] The process continues with the identification, prioritization, and implementation of recommended solutions or corrective measures.

How does NNSA manage and estimate costs for its weapons acquisition programs?

Weapons programs to acquire new weapons are managed through a joint DOE-DOD Phase X process. The Phase X process consists of eight life cycle phases from concept assessment to retirement, dismantlement, and disposal.

Programs intended to extend the life of existing weapons—such as life extension programs (LEPs), alterations, and modifications—are managed through a similar Phase 6.X process (see fig. 2). The Phase 6.X process, in use since the late 1990s, mirrors the Phase X process but takes place entirely within Phase 6 (Production/Sustainment), signaling that the program is intended to work with a weapons design already in the stockpile.

Figure 2: The Phase X and Phase 6.X Processes for Managing Nuclear Weapon Acquisition Programs



Source: National Nuclear Security Administration documentation. | GAO-25-107767

In Phase 2/6.2, a weapons program formulates initial cost estimates for each potential design option for the weapon before selecting the options that will go forward. In Phase 2A/6.2A, the program formulates preliminary estimates of cost and schedule for the selected design option and reports them in a weapon design and cost report. This report describes the options and preliminary cost estimates for design, qualification, and production activities.

In Phase 3/6.3, NNSA further refines these cost estimates and establishes a cost baseline, documented in a baseline cost report. The cost baseline includes the total estimated program cost, which consists of design and production costs and contingency to cover cost and schedule risks.

Beginning with a program's entrance into Phase 3/6.3 and continuing through subsequent phases, NNSA is required to annually submit to congressional defense committees a report on each new nuclear weapon system or a system undergoing a life extension or major alteration. This report is known as a Selected Acquisition Report (SAR).[7] The cost estimate reported in the program's initial SAR is based on the estimate from the Phase 2A/6.2A weapons design

and cost report. When the Phase 3/6.3 baseline cost report is complete—later in Phase 3/6.3—the weapons program updates the SAR with that cost estimate.

As with construction projects, a weapons program may encounter unforeseen challenges that affect its ability to meet its cost baseline. In such cases, a change to the program's cost baseline may be approved, subject to requirements established by NNSA's Office of Defense Programs.[8] A change in the cost baseline may also reflect a change in the program's scope or a change in the program's schedule.

In addition, CEPE plays an important role in independently reviewing program cost estimates for a weapons program. Specifically, at the completion of Phase 2/6.2, the office evaluates a program's initial cost estimates for each potential design option by assessing the reasonableness of the estimate's quality, assumptions, and risks. In Phase 2A/6.2A, the office prepares an independent cost estimate to compare against the program estimate in the weapons design and cost report. CEPE does so again in Phase 3/6.3 for the baseline cost report. Programs must review and reconcile any differences between their cost estimates and CEPE's independent estimates.

What reporting does DOE's cost growth notification provision require?

As noted above, in 2011, the federal government enacted statutory reporting requirements for certain NNSA construction projects and weapons programs.

Specifically, the NNSA Administrator or Secretary of Energy must first notify congressional defense committees within 30 days of setting certain baselines:[9]

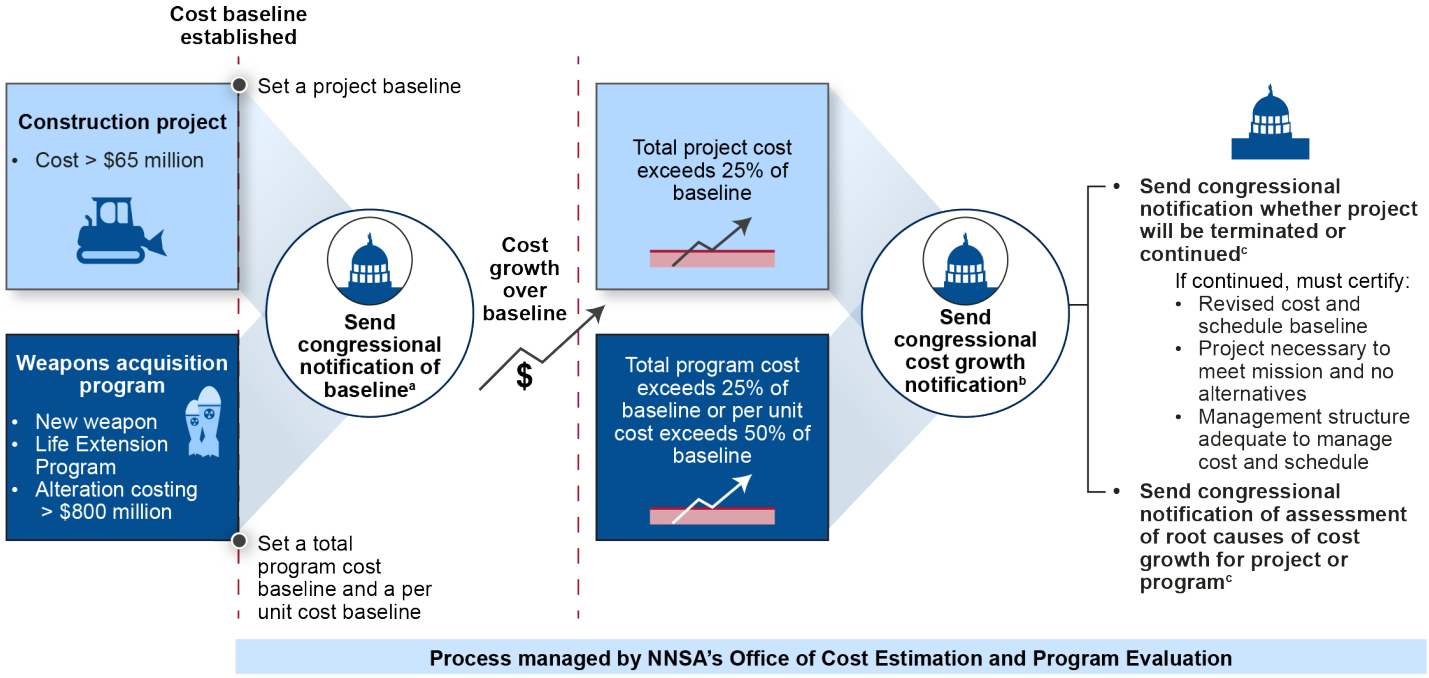
- For defense-funded construction projects, a total project cost baseline that exceeds $65 million.
- For new nuclear weapons or life extension programs (LEP) of any cost, or alteration programs whose cost exceeds $800 million (major alterations), a total program cost baseline and a per unit cost baseline.

For these projects and programs, the provision requires a second congressional notification within 30 days of a determination by the NNSA Administrator or Secretary of Energy that they will experience cost growth that exceeds certain limits:[10]

- For defense-funded construction projects, costs that exceed 125 percent of the total project baseline (i.e., a 25 percent cost increase).
- For new nuclear weapons, LEPs, or major alterations, costs that exceed 125 percent of the total program baseline (i.e., a 25 percent cost increase) or 150 percent of the weapon's per unit cost baseline (i.e., a 50 percent cost increase per unit).

Within 90 days after the cost growth notification, the provision requires the NNSA Administrator or Secretary of Energy to provide a third notification of whether the construction project or weapons program will be terminated or continued (see fig. 3).[11]

Figure 3: Cost Growth Notification Process for National Nuclear Security Administration (NNSA) Construction Projects and Weapons Acquisition Programs



Source: GAO icons and analysis of 50 U.S.C. § 2753, 2411. | GAO-25-107767

Note: Notifications are sent to the congressional defense committees.

[a]Notification must be submitted within 30 days of establishing a cost baseline.

[b]Notification must be submitted not later than 30 days after determining that costs will exceed a reporting threshold.

[c]Notification must be submitted not later than 90 days after submission of a cost growth notification.

If the project or program is continued, NNSA must certify the following:[12]

- A revised total project or program cost baseline, with a per unit cost baseline, as appropriate, has been established.
- The continuation of the project is necessary to meet the mission of DOE/NNSA and there is no alternative that would meet the requirements of that mission.
- A management structure is in place that is adequate to manage and control the cost and schedule of the project going forward.

Also within 90 days of the cost growth notification, NNSA is required to submit an assessment of the root causes.[13] The assessment must address whether a defined series of potential causes—such as unrealistic performance expectations or immature technologies—contributed to the cost overrun.

A separate provision charges the Director of CEPE with reviewing cost baselines for projects and managing notifications to congressional defense committees of cost growth.[14]

How do DOE and DOD cost growth notification provisions compare?

In 1982, the federal government enacted a provision, commonly known as "Nunn-McCurdy," to monitor certain DOD major defense acquisition programs that were experiencing escalating cost and schedule issues.[15] The act establishes thresholds to determine whether one of these programs, or a major subprogram, experiences a "significant" or "critical" cost overrun. In the event of a critical overrun, DOD must notify congressional defense committees and take steps to reevaluate the program and certify its importance if it will not be terminated.

DOD and DOE's cost growth notification provisions differ in key areas:

- **Responsibility for reporting.** Nunn-McCurdy specifically requires the DOD program office to carry out certain assessments, including a root cause assessment, in consultation with DOD's Office of Cost Assessment and Program Evaluation. In contrast, DOE's cost growth notification provision assigns most responsibility to the Secretary of Energy or NNSA Administrator. A separate provision of law makes CEPE responsible for managing these notifications to congressional defense committees.[16]
- **Termination clause.** Nunn-McCurdy presumes termination of the program unless recertified by the Secretary of Defense. In contrast, the Secretary of Energy or NNSA Administrator must notify congressional defense committees whether a project or program is continued or terminated.
- **Timing of cost growth reporting.** Under Nunn-McCurdy, DOD has 45 days to report cost growth that is tied to a preestablished periodical reporting requirement. In contrast, NNSA has 30 days to report cost growth, but this time frame is not tied to a periodical reporting requirement.
- **Timing of root cause report.** Under Nunn-McCurdy, DOD has 60 days from the submission of a new SAR to determine the root causes of the breach and to certify the program. Nunn-McCurdy also requires a new milestone approval for the program. NNSA has 90 days from a cost growth notification to certify the program, establish a revised cost baseline, and submit a root cause report. However, NNSA is not required to establish a new CD-2/3 milestone or Phase 3/6.3 approval.

Has NNSA notified congressional defense committees when it sets cost baselines?

NNSA has generally notified congressional defense committees when it sets an initial cost baseline for construction projects and for weapons acquisition programs. According to our analysis of DOE project reporting, as of April 2025, NNSA had 14 projects in the execution phase (i.e., that have reached CD-2) that it estimated would each cost more than $65 million, the cost threshold for a project to be subject to the notification provision. We found that NNSA has provided documentation that it had notified congressional defense committees of the project's cost baseline in all 14 instances.

For LEP and new weapons acquisition programs, the cost growth notification provision establishes that the cost and schedule baseline is to be as described in the program's initial SAR. Weapons alteration programs also submit a SAR. Accordingly, NNSA officials told us that NNSA regards submission of a weapons acquisition program's initial SAR as congressional notification of the cost baseline, though the SARs we reviewed do not state that the SAR reporting is intended to meet this requirement.[17] NNSA officials told us they calculate the weapon per unit cost baseline as part of the annual SAR development process and report that information in a classified appendix.

NNSA has three weapons programs or major modifications under way that are producing a SAR: the B61-12, W88 Alt 370, and W80-4. According to NNSA officials, the W87-1 program is not producing a SAR even though it has entered Phase 6.3. NNSA officials stated that delays to DOD's associated weapons delivery platform program—the Sentinel intercontinental ballistic missile program—have delayed accurate cost estimates for the W87-1 program.[18] Other ongoing weapons acquisition programs have not entered Phase 3/6.3 and therefore have not produced a SAR.

Has NNSA notified congressional defense committees when construction project costs exceed baselines?

NNSA has not generally provided formal notifications to congressional defense committees when the total costs for construction projects increase by 25 percent or more. We identified numerous instances where notification does not appear to have been provided in a timely manner or was not provided at all.

As of April 2025, seven of NNSA's 14 construction projects were experiencing cost growth that requires, or is likely to require, congressional notification. Specifically, these seven construction projects established new cost baselines that increased their total project costs by 25 percent or more, which is reportable cost growth.

One of the 14 projects—Neutron Diagnosed Subcritical Experiments Mining and Critical Procurements—had an initial baseline cost that was under the $65 million threshold for the cost growth provision. Subsequent cost growth has made it subject to the provision. NNSA sent a baseline notification in July 2025, but NNSA officials told us they would not send a cost growth notification.

Of the remaining six projects, five are listed as expected to breach the baseline, undergoing rebaselining, or undergoing a change in strategy that could affect the cost baseline, according to a DOE project management reporting document. For example, DOE documentation states that because of a strategy change, two projects at Los Alamos National Laboratory—the Los Alamos Plutonium Pit Production Project (LAP4) Base 30 and the LAP4 Decontamination and Decommissioning Subproject—are exceeding performance baselines and will need to rebaseline. However, this document did not state whether the new rebaselined costs would exceed 25 percent and thus require a congressional notification.

Table 1 summarizes the status of notifications that NNSA has submitted to congressional defense committees.

Table 1: Cost Baseline and Cost Growth Notifications as Required by 50 U.S.C. § 2753 for Ongoing National Nuclear Security Administration (NNSA) Projects Costing over $65 Million, as of April 2025

Site	Project title	Initial baseline date and cost	Baseline notification letter sent	Rebaselined date and cost (% increase)	Cost growth notification	Recertification and revised baseline	Assessment of root causes
Los Alamos National Laboratory	Los Alamos Plutonium Pit Production Project (LAP4) 30 Base Subproject	January 2023 $1,864 million	●	Unknown, changing scope and rebaselining[a]	△	△	△
	LAP4 Decontamination and Decommissioning Subproject	November 2021 $529 million	●	Unknown, changing scope and rebaselining[a]	△	△	△
	Technical Area-55 Reinvestment Project Phase 3	May 2021 $236 million	●	Rebaselining, current estimate is $254 million (8%)	N/A	N/A	N/A
	Transuranic Liquid Waste Subproject	January 2022 $215 million	●	Unknown, expected to breach[b]	△	△	△
Nevada National Security Site	Enhanced Capabilities for Subcritical Experiments Laboratory and Support Infrastructure Subproject	June 2022 $560 million	●	January 2025 $830 million (48%)	○	○	○
	Neutron Diagnosed Subcritical Experiments Mining and Critical Procurements	April 2024 $46.6 million	●	December 2024 $69.6 million (49%)[c]	N/A	N/A	N/A
Pantex Plant	High Explosive Science and Engineering Facility	April 2022 $228 million	●	June 2024 $300 million (32%)	○	○	○
Savannah River Site	Savannah River Plutonium Processing Facility Administrative Building	December 2023 $93 million	●	Unknown, changing strategy[d]	△	△	△
	Surplus Plutonium Disposition	October 2024 $997 million	●	N/A	N/A	N/A	N/A

Y-12 National Security Complex	Uranium Processing Facility (UPF) Main Process Building	March 2018 $4,732 million	●	December 2024 $7,450 million (57%)	○	○	○
	UPF Process Support Facilities	March 2018 $140 million	●	February 2023 $194 million (39%)	●	●	◐
	UPF Salvage and Accountability Building	March 2018 $1,180 million	●	December 2024 $2,250 million (91%)	○	○	○
	West End Protected Area Reduction Project	January 2021 $160 million	●	February 2024 $265 million (66%)	○	○	○
Idaho National Laboratory	Spent Fuel Handling Recapitalization Project (Naval Reactors)[e]	September 2018 $1,687 million	●	Baseline #4: October 2022 $3,000 million (78%)	●	●	◐
				Baseline #5: May 2025 $4,533 million (168% over initial baseline, 51% over Baseline #4)	○	○	○

● - Notification provided ○ – Notification or assessment not provided △ - Notification status undetermined

◐ - Root cause analysis partially addressed

Source: GAO analysis of Department of Energy project reporting data and NNSA documentation. | GAO-25-107767

[a]NNSA is reorganizing these projects and will rebaseline each in 2025.

[b]Project baseline expected to breach total project cost.

[c]Project had an initial baseline cost that was under the $65 million threshold for the cost growth provision; subsequent cost growth has made it subject to the provision.

[d]NNSA plans to shift from a private contractor to the U.S. Army Corps of Engineers to complete the work.

[e]Naval Reactors has rebaselined this project four times. The fourth baseline of $3 billion was approved in October 2022 and notification of the cost growth, recertification of the program, and a partial assessment of root causes was provided to Congress in January 2023. A fifth baseline was approved in May 2025.

Of the seven projects that are experiencing reportable cost growth, NNSA has submitted two of the required cost growth notifications to congressional defense committees. As noted above, the provision requires notification of cost growth within 30 days of the NNSA Administrator or Secretary of Energy determining that costs will exceed the 25 percent reporting threshold.

However, in both instances, NNSA did not provide the cost growth notification in a timely fashion. Specifically, Naval Reactors established its fourth baseline for the Spent Fuel Handling Recapitalization Project in October 2022, but did not provide notification of cost growth until about 3 months later, in January 2023. NNSA established a new baseline for the Uranium Processing Facility (UPF) Process Support Facilities in February 2023, but did not provide a cost growth notification until June 2023, about 5 months later.

Of the remaining five of seven projects that are experiencing reportable cost growth, NNSA has not provided the initial cost growth notification in a timely manner. For example, the West End Protected Area Reduction Project established a new baseline in February 2024, but as of June 2025, NNSA had not provided the required cost growth notification. In addition, the High Explosive Science and Engineering (HESE) Facility project established a new baseline in June 2024, but NNSA had not provided the required cost growth notification.

NNSA officials told us that the agency has delayed providing the initial cost growth notifications until they establish new baselines for the projects. However, in the examples described above, NNSA has delayed providing notifications for months or more than a year, in some cases, even after establishing new baselines. Furthermore, the rebaselining process can take several months or years, according to NNSA officials. Such delays could deprive congressional defense committees of the early notification of cost growth intended by the provision.

Further, one major project—the Uranium Processing Facility at Y-12 in Tennessee—is divided into seven subprojects, three of which are ongoing and were baselined in March 2018. In November 2022, DOE documentation indicated that two of these projects would exceed their cost baselines by more than 25 percent, and one by nearly 25 percent.

However, as noted above, NNSA has provided only one notification for the Process Support Facilities. DOE approved revised cost and schedule baselines for the remaining two subprojects—the Main Process Building (see fig. 4) and the Salvage and Accountability Building—in December 2024. However, as of June 2025, NNSA had not provided congressional defense committees with the cost growth notification or the new cost baseline for either subproject.[19]

Figure 4: Computer Rendering of Uranium Processing Facility Main Process Building

Source: National Nuclear Security Administration. | GAO-25-107767

NNSA officials, including those with the Office of Infrastructure and Office of Defense Programs, stated that NNSA provided congressional defense committees with information about project and program cost growth through other means, such as through monthly project reports, informal emails, and other regular communication. NNSA officials also said that NNSA provides quarterly construction updates to the committees, which include the current rough estimates for cost and schedule overruns for all projects. However, as noted above, congressional notification is only one element of the cost growth provision's requirements, which also include requirements to certify the continuing need for the program, provide a new baseline, and assess underlying root causes.

NNSA officials with CEPE acknowledged shortcomings in how the office has managed NNSA's cost baseline and cost overrun notifications. A senior CEPE official expressed a commitment to providing these notifications and to doing so in a timelier manner. CEPE officials stated that the office is undertaking corrective actions to help it do so. These include developing notification templates for project and program teams and developing a central document repository for program documentation.

In June 2025, a CEPE official stated that cost growth notifications for several projects were undergoing internal review and would be sent to congressional defense committees within months.

Has NNSA notified congressional defense committees when weapons program costs exceed baselines?

Our review of total weapons costs and per unit weapons costs for weapons programs reporting a SAR found that none were reporting cost growth that exceeded the notification limits.

However, the law has changed over time to lower the per unit cost percentage threshold and require reporting by alteration programs. For example, until late 2015, the provision did not require alteration programs to report cost growth. In February 2015, one alteration program—the W88 Alt 370—provided a cost growth notification to congressional defense committees because of changes in program scope as directed by the Department of Defense and coordinated through the Nuclear Weapons Council. However, because of the law in force at the time, the program did not fall within the cost growth notification provision. According to NNSA documentation, NNSA regards the W88 Alt 370 rebaselined cost to be the new basis for cost growth comparisons.

Current NNSA policy is to not treat changes in weapons program scope as requiring a cost growth notification, according to NNSA Office of Defense Programs officials. However, a CEPE official told us that changes in scope are among the examples that the cost-growth notification provision lists as potentially relevant to an assessment of root causes, suggesting that such changes do require a cost growth notification.

Table 2 compares the baseline reported in each program's first SAR to costs reported in their fiscal year 2024 SARs, and information about rebaselining.

Table 2: Nuclear Weapons Program Selected Acquisition Report (SAR) Baseline Cost and Cost Growth

Weapons program	Cost baseline as reported in first SAR (date)	Cost after rebaseline (as of date)	Current cost estimate (as of date)	Percent cost change from first SAR
B61-12	$7,334 (Dec. 2012)	--	$8,026 (Sept. 2023)	9%
W80-4	$11,046 (Dec. 2019)	$12,500 (estimated, rebaseline under way)	$11,036 (Sep. 2023)	-0.1%
W88 Alteration 370	$1,451[a] (Dec. 2012)	$2,618 (Dec. 2016)	$2,825 (Sept. 2023)	95%[b]

Source: GAO analysis of National Nuclear Security Administration Selected Acquisition Reports. | GAO-25-107767

[a]The W88 Alteration 370 first reported a SAR in December 2012; however, NNSA provided documentation of the December 2013 SAR cost.

[b]The W88 Alteration 370 rebaselined costs after scope changes caused the program to report a breach of cost baselines. NNSA regards the December 2016 cost baseline as the new basis for cost comparisons.

Table 3 contains the percentage of per unit cost increase for each weapons program, as reported in its fiscal year 2024 SAR.

Table 3: Nuclear Weapons Program per Unit Cost Growth, as of Each Program's Fiscal Year 2024 Selected Acquisition Report

Weapons program	Program acquisition unit cost increase	Average procurement unit cost increase
B61-12	9.5%	17.0%
W80-4	1.3%	2.6%
W88 Alteration 370	7.0%	18.6%

Source: National Nuclear Security Administration Selected Acquisition Reports. | GAO-25-107767

Note: The program acquisition unit cost is defined as the total program cost estimate divided by the number of units. The average procurement unit cost is defined as the total procurement cost estimate divided by the number of units to be procured.

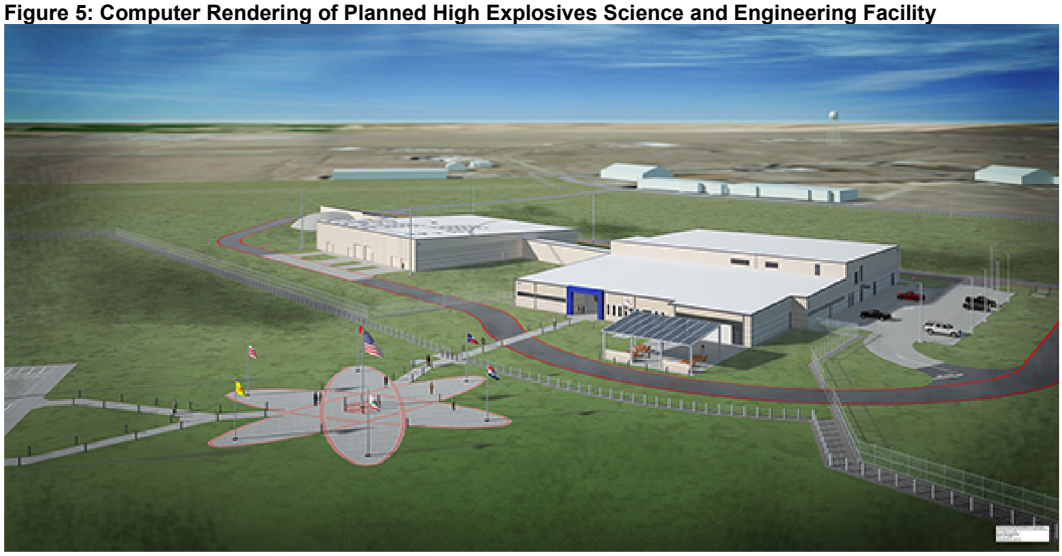
Does NNSA provide root cause analyses to congressional defense committees?

Of the seven construction projects that have exceeded or are projected to exceed their cost baselines by more than 25 percent, NNSA submitted two assessments of root causes to congressional defense committees as part of a cost growth notification.

Specifically, we reviewed the analysis for the UPF Process Support Facility and found that it appears to have been prepared to address the requirements of DOE's project management order rather than to address the cost growth notification requirements. For example, it does not address the extent to which unrealistic performance expectations or immature technologies played a role in the cost growth. We also reviewed the brief assessment of root causes provided by Naval Reactors for the third rebaseline of the Spent Fuel Handling Recapitalization Project and found that it did not address the elements required by the cost growth notification provision.

NNSA officials told us that project officials had prepared root cause analyses for several other projects, such as for the HESE facility (see fig 5). However, as of June 2025, NNSA had not submitted these to the congressional defense committees, though CEPE officials said that two—including one for HESE—would be sent within months.

Figure 5: Computer Rendering of Planned High Explosives Science and Engineering Facility



Source: Burns and McDonnell. | GAO-25-107767

NNSA officials stated that the project officials who created the root cause analyses were overly focused on "lessons learned" that could be applied to future projects and did not adequately address the actual underlying root causes of the project's cost overruns. NNSA officials also acknowledged that the root cause reports did not address the elements required by DOE's cost growth notification provision, although these elements are listed in the DOE project management order.

In December 2024, officials with the Office of Management and Budget, charged with reviewing such documentation before it is released, agreed that these root cause analyses were of generally poor quality, did not adequately address root causes, and did not address the elements required by DOE's cost growth notification provision. NNSA officials attributed the problems with the root causes to a lack of agency guidance on conducting root cause analyses.

What is NNSA doing to improve its cost growth reporting?

NNSA is developing and implementing measures to improve congressional notification and reporting on cost growth. Specifically, NNSA officials told us that they are taking the following steps.

Reporting process and templates

CEPE officials acknowledged that the process for reporting cost growth on construction projects had not been well-managed in the past. However, these officials stated that they recognized the shortcomings and were undertaking several corrective actions but could not estimate when all actions would be complete.

Specifically, these officials said they were prioritizing developing a process for the construction projects because those had experienced reportable cost growth. A CEPE official said CEPE was developing reporting templates for the required three notifications and provided drafts for our review.

A CEPE official further stated that they had met with senior NNSA leadership to emphasize the importance of complying with the reporting requirements and were publicizing such requirements within NNSA project offices. This official said they were also developing a central document repository for NNSA to track the required program documentation. In September 2025, a CEPE official said that they had completed these corrective actions and that both were in use.

In addition to this process, CEPE officials initially told us in November 2024 that they planned to embed their staff earlier in the project management team to help guide reporting efforts. However, in February 2025, CEPE officials said those plans had been curtailed due to limited personnel resources.

In contrast to the priority placed on implementing a process for construction projects, CEPE officials told us that the effort to institute a reporting process for weapons programs was still in its early stages because none of the weapons acquisition programs were experiencing reportable cost growth. These officials could not estimate when a process or reporting templates for weapons program cost growth would be implemented.

As noted above, without established processes—which templates can facilitate—NNSA has not provided consistent notification of reportable cost growth. Following through on developing processes to report cost growth for construction projects and weapons programs, and establishing a deadline to do so, would help NNSA ensure it is providing accurate cost growth information to congressional decision-makers within required time frames.

Root cause assessments

CEPE officials told us that they intended to implement measures in the short term to compensate for shortcomings in some of the completed root cause assessments. They also said they were creating a guidance document to improve future root cause assessments.

These officials stated that they had studied two root cause assessments associated with projects undergoing cost growth and determined that it would not be cost efficient to repeat the analyses. Instead, NNSA officials said they intended to submit the root cause assessments to the congressional defense committees with an additional document acknowledging the shortcomings and supplementing the analysis.

For projects that had not completed their root cause analyses, NNSA officials said they were working closely with the project managers to assess and document root causes according to DOE and industry standards for such analyses and to create guidance using these standards.[20] However, NNSA

officials could not provide a date for when this root cause assessment guidance document would be completed.

Having such guidance, and a deadline to finalize it, would help NNSA accurately identify underlying causes of the cost increases for its projects and to identify and implement corrective measures to share with and apply to other construction projects.

Has NNSA identified opportunities for improving its cost growth reporting?

NNSA officials have identified several elements in the cost growth notification provision that they believe could be improved. In one case, officials noted that these elements, such as the timing requirements for notifications, make compliance with the provision difficult. In another case, NNSA officials said they believed the agency could improve the quality of information it provides to congressional defense committees.

We describe below some specific opportunities for improvement that NNSA officials identified to us. Agency officials, however, have not communicated with Congress on these and other issues.

- **Timing requirements.** NNSA officials told us that the 30-day requirement to report a cost overrun and the 90-day requirement to report a new baseline and submit an assessment of root causes were challenging to meet with high quality information. Project and program rebaselining can take several months and, in some cases, over a year to complete. In addition, officials told us that root cause analyses are also challenging to complete within such time frames. NNSA officials stated that modifying current law to extend, for example, the 90-day requirement to submit a new baseline and root cause report would allow NNSA to provide more accurate information within achievable deadlines.
- **Clarifying authorities within the provision.** The requirement for CEPE to oversee the cost growth reporting process is in a separate provision of law than the cost growth provision. At present, the cost growth notification provision directs the Secretary of Energy or the Administrator of NNSA to provide the congressional notifications. A separate provision of law requires the Director of CEPE to manage the notification process. CEPE officials said it would enhance the office's ability to manage the process if this authority was integrated into the cost growth notification provision, such as by directly delegating management of the process to the Director of CEPE.
- **Major items of equipment.** The current provision does not cover procurements of major items of equipment—some of which can cost more than $100 million. As noted above, NNSA manages these projects under DOE's management order and one—the Calciner Project at Y-12—has already experienced cost growth of approximately 98 percent. NNSA officials suggested that congressional oversight could be enhanced by adding a reporting requirement for such procurements.[21]
- **Construction reporting threshold.** Reporting is only required for defense-funded construction projects that set a baseline greater than $65 million. As such, some construction projects managed under DOE's project management order that cost more than $50 million but less than $65 million are not required to provide congressional notification. An NNSA official stated that the differing thresholds could contribute to some confusion about project reporting. Reconciling the thresholds could, accordingly, improve reporting under the provision.
- **Punitive provisions.** NNSA officials noted two provisions of law that may target the bonuses of federal officials and awards to contractors who send a

cost growth notification to congressional defense committees, which may disincentivize timely reporting required by the cost growth provision.[22]

Under federal internal control standards, management should communicate the necessary quality information externally to achieve the entity's objectives, such as communicating with the oversight body. By doing so, that body would have information on significant matters relating to risks, changes, or issues that impact the entity's internal control system. An element of quality information is that it should be communicated on a timely basis.

However, CEPE and other NNSA officials told us that they had not communicated these challenges to Congress. Previously, another NNSA office had managed the notification process, and CEPE officials said they were still familiarizing themselves with the process and navigating the requirements.

By communicating the agency's concerns about, and suggested changes to, the cost growth notification provision, NNSA would provide Congress with the relevant information to support congressional decision-making about how best to address the provision. NNSA would also be better able to provide congressional decision-makers with timely, accurate cost growth notifications.

Conclusions

Although required by law to provide cost growth notifications to congressional defense committees, NNSA has not developed an effective process to consistently provide notifications of reportable cost growth. Further, a lack of written NNSA guidance has led to missing or deficient root cause assessments. While officials said they were implementing a new notification process and drafting root cause assessment guidance, NNSA does not have deadlines or milestones for completing these efforts.

Additionally, NNSA has identified suggestions for improving cost reporting and related elements. However, NNSA had not provided them to Congress for its consideration.

Recommendations for Executive Action

The Administrator of NNSA should direct CEPE to establish a deadline and finalize its efforts to establish templates and implement a process for reporting timely cost growth notifications. (Recommendation 1)

The Administrator of NNSA should direct CEPE to establish a deadline and finalize its efforts to establish guidance on performing a root cause analysis that also traces to the required elements under the cost growth notification provision. (Recommendation 2)

The Secretary of Energy, in coordination with the Administrator of NNSA, should communicate to the relevant congressional committees suggested changes to the cost growth notification provision. (Recommendation 3)

Agency Comments

We provided a draft of this report to DOE, NNSA, and the Office of Management and Budget for review and comment.

In their consolidated comments, reproduced in Appendix I, DOE and NNSA concurred with our recommendations. In response to our first two recommendations, NNSA stated that it would finalize a process and templates for cost growth reporting, as well as guidance for conducting root cause analyses, by September 30th, 2026. In response to our third recommendation, DOE and NNSA acknowledged that any communication with Congress about desired legislative change would need to be coordinated through appropriate executive channels, which is consistent with our recommendation. NNSA also provided technical

comments, which we incorporated as appropriate. OMB did not provide comments.

How GAO Did This Study

To describe NNSA's Congressional notification process, we reviewed provisions in Title 50 of the U.S. Code that relate to cost controls and reporting. In particular, we reviewed 50 U.S.C. § 2753, which requires DOE and NNSA to notify the congressional defense committees when they establish baselines for defense construction projects and weapons acquisition programs, and when costs exceed certain limits.

For both construction projects and weapons programs, we reviewed NNSA's congressional notification letters for cost baselines and cost growth, and associated root cause analyses, to the extent they were available, to determine how the process has been implemented and if there were gaps or delays in reporting. We focused on ongoing construction projects and weapons programs.

For construction projects, we reviewed project information from DOE's project management database—the Project Assessment and Reporting System—to identify each project's initial cost baseline. We compared those to subsequent project rebaselines or information about expected rebaselining to identify projects experiencing reportable cost growth. We compared those to the congressional notifications that NNSA provided to identify missing or delayed notifications, including assessments of root causes.

For weapons acquisition programs, we reviewed the fiscal year 2024 SARs, including their classified annexes, for each weapons program reporting a SAR—the B61-12, the W80-4, and the W88 Alteration 370—to identify whether any had reported cost growth. We compared each weapons program's initial cost baseline as reported in the first SAR to the most recent fiscal year 2024 SAR to identify cost growth in those programs. Because detailed information about weapons program per unit costs is classified, we reproduced information about the percentage increase in per unit costs only. We also reviewed each of these programs' classified Phase 3/6.3 cost baseline reports to understand how and at what point such cost estimates were included in the program SARs.

We compared the requirements established by the cost growth provision to NNSA directives and guidance for establishing cost baselines and cost reporting to assess whether there are elements of either that would benefit from better alignment and lead to improved implementation. These documents included NNSA Supplemental Directive 452.3-2A Phase X/6.X Process, the Office of Defense Program's Program Execution Instruction, and DOE Order 413.3B Program and Project Management for the Acquisition of Capital Assets. In addition, we reviewed similar Department of Defense cost overrun notification requirements at 10 U.S.C. §§ 4371-4377 (referred to as the "Nunn-McCurdy Act") to identify key differences, if any, in the provisions that could affect effectiveness.

We conducted interviews with knowledgeable NNSA officials at NNSA's CEPE office, Office of Infrastructure, and Office of Defense Programs to determine what cost growth notifications had been provided to congressional defense committees, and opportunities for enhancement. We also interviewed Office of Management and Budget examiners with responsibility for reviewing NNSA congressional notification letters to obtain their perspective on the process.

This cost growth notification provision also requires DOE to report on cost baselines and cost growth for Office of Environmental Management projects and any defense-funded Office of Nuclear Energy projects. However, we focused our review on NNSA-managed programs and projects, in accordance with the provision requesting our review.

We conducted this performance audit from August 2024 through September 2025 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 I: Comments from

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

August 29, 2025

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 "National Nuclear Security Administration: Agency Should Improve Cost Growth Notification Process" (GAO-25-107767). The Department of Energy's National Nuclear Security Administration (DOE/NNSA) communicates with Congress about project cost growth through the budget process, quarterly project reports, and other regular communication. NNSA has implemented initiatives that will strengthen our notification and root causes analysis processes.

The enclosed management decision outlines the specific actions planned to address NNSA's two recommendations, as well as the recommendation to DOE for communicating with relevant congressional committees about suggested changes to the cost growth notification provision. 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, please contact Mr. George Aaron Webb, Acting Director, Audits and Internal Affairs, at (301) 903-3436.

Sincerely,

Teresa M. Robbins
Acting Under Secretary for Nuclear Security
and Administrator, NNSA

Enclosure

Enclosure

NATIONAL NUCLEAR SECURITY ADMINISTRATION
Management Decision

"National Nuclear Security Administration: Agency Should Improve Cost Growth Notification Process" (GAO-25-107767)

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

Recommendation 1: Direct the Office of Cost Estimating and Program Evaluation (CEPE) to establish a deadline and finalize its efforts to establish templates and implement a process for reporting timely cost growth notifications.

Management Response: NNSA has made tremendous progress to address, prepare, and submit responsive notifications to Congress for its construction projects. NNSA will continue to finalize the templates and institutionalize the process for submitting timely 50 U.S.C. § 2753 cost growth notifications to Congress. The estimated date for completing these actions is September 30, 2026.

Recommendation 2: Direct CEPE to establish a deadline and finalize its efforts to establish guidance on performing a root cause analysis that also traces to the required elements under the cost growth notification provision.

Management Response: NNSA will finalize its efforts to establish guidance on performing a root cause analysis that incorporates the required elements under 50 U.S.C. § 2753. The estimated date for completing this action is September 30, 2026.

GAO also recommends DOE:

Recommendation 3: In coordination with the Administrator of NNSA, communicate to the relevant congressional committees suggested changes to the cost growth notification provision.

Management Response: NNSA employees interviewed by GAO identified potential changes to the statutorily required timeframes that could enhance the effectiveness and utility of mandated cost growth notifications. DOE and NNSA will continue to be responsive to congressional requests for technical assistance. Any formal legislative proposal would only be provided to Congress after approval by the Office of Management and Budget and interagency coordination, consistent with the provisions of Circular A-19 and other relevant guidance from the Office of Management and Budget.

List of Addressees

The Honorable Mike Rogers
Chairman
The Honorable Adam Smith
Ranking Member
Committee on Armed Services
House of Representatives

We are sending copies of this report to the appropriate congressional committees, the Secretary of Energy, the Administrator of the National Nuclear Security Administration, and the Director of the Office of Management and Budget. In addition, the report is available at no charge on the GAO website at http://www.gao.gov.

GAO Contact Information

For more information, contact: Allison B. Bawden, Director, Natural Resources and Environment, BawdenA@gao.gov.

Public Affairs: Sarah Kaczmarek, Managing Director, Media@gao.gov.

Congressional Relations: A. Nicole Clowers, Managing Director, CongRel@gao.gov.

Staff Acknowledgments: Jonathan Gill (Assistant Director), Julia T. Coulter (Analyst in Charge), Joseph Aubee, Antoinette Capaccio, Pamela Davidson, Frank Garro, Penney Harwell-Caramia, Jennifer Leotta, James Madar, Jessica Lucas-Judy, Justin Snover, and Sara Sullivan.

Endnotes

[1]DOE's order on project management for capital asset acquisitions applies to all projects estimated to cost $50 million or more. The order requires increasingly senior supervisory oversight for projects estimated to cost between $100 million and $750 million, and those costing greater than $750 million (defined as "major systems"). Department of Energy, *Program and Project Management for the Acquisition of Capital Assets,* DOE Order 413.3B (Change 7) (Washington, D.C.: June 21, 2023).

[2]DOE defines major items of equipment acquisitions as certain capital equipment or software designed and fabricated or acquired in support of a DOE mission activity that is not integral to a facility or related to, designed for, or specifically adapted to the functional or productive capacity of a facility.

[3]The total project cost consists of all costs specific to a project incurred through the startup of a facility, but prior to the operation of the facility.

[4]National Nuclear Security Administration, *Responsibilities for Independent Cost Estimates*, NAP 413.3A (Change 1) (Washington, D.C.: Mar. 1, 2024).

[5]NNSA's Office of Cost Estimating and Program Evaluation (CEPE) provides the NNSA Administrator with independent analyses, including cost estimating, alternatives assessment, and program performance evaluation for NNSA.

[6]Department of Energy, *Root Cause Analysis: Contract and Project Management* (Washington, D.C.: April 2008).

[7]50 U.S.C. § 2537. See also NNSA, *Phase X/Phase 6.X Processes*, NNSA Supplemental Directive 452.3-2A (Washington, D.C.: Nov. 8, 2022). The information provided in the Selected Acquisition Report is to be the same as the information contained in the Selected Acquisition Report for a major defense acquisition program under section 4351 of title 10, expressed in terms of the nuclear weapon system.

[8]National Nuclear Security Administration, *Office of Defense Programs, Defense Programs Program Execution Instruction,* Revision 4 (Washington, D.C.: December 10, 2024).

[9]50 U.S.C. § 2753(a).

[10]50 U.S.C. § 2753(b).

[11]50 U.S.C. § 2753(c)(1).

[12]50 U.S.C. § 2753(c)(2).

[13]50 U.S.C. § 2753(c)(3).

[14]50 U.S.C. § 2411.

[15]Department of Defense Authorization Act, 1983, Pub. L. No. 97-252, tit. XI, § 1107(a)(1), 96 Stat. 718, 739 (1982) (codified as amended at 10 U.S.C. §§ 4371-4377).

[16]50 U.S.C. § 2411.

[17]The costs reported in the initial SAR are based on those from the Phase 6.2A weapons design and cost report rather than the baseline cost report. The baseline cost report is completed later in Phase 3/6.3 and the next SAR is updated to reflect the baselined costs, according to NNSA officials. The baseline cost reports are not required to be submitted to congressional defense committees within 30 days as part of a cost baseline notification.

[18]We examined the identified causes of the Sentinel program's Nunn-McCurdy breach and the steps DOD is taking to avoid similar problems in our restricted report: GAO, *Nuclear Modernization: Sentinel Program Taking Steps to Restructure After Cost Breach*, GAO-25-107615SU.

[19]NNSA now projects that the UPF Main Process Building—initially baselined in March 2018 at a cost of $4.73 billion—will cost $7.45 billion, an increase of approximately 57 percent. NNSA projects that the UPF Salvage and Accountability Building—initially baselined at $1.18 billion in March 2018—will cost $2.25 billion, an increase of approximately 91 percent.

[20]An NNSA official leading the effort to develop this guidance said they were selecting elements from several standards, including DOE, the Air Force Research Lab, and Centers for Disease Control and Prevention, but ultimately were using the Eindhoven Classification Model as the basis. The Eindhoven model is commonly utilized in medicine.

[21]There are other reporting requirements relating to major items of equipment, but none require all of the same information as 50 U.S.C. § 2753 requires. Specifically, 42 U.S.C. § 5821 requires DOE to notify certain congressional committees about defense-funded major items of equipment with an estimated cost of over $2 million that will be installed off of a DOE or NNSA facility if such items have not already been authorized. DOE's Financial Management Handbook further directs the agency to include information on major items of equipment exceeding $10 million in congressional budget requests, and to report cost growth for such items, as well as those covered by the statutory requirement, in subsequent congressional budget requests.

[22]50 U.S.C. §§ 2445-2446.