

Department of Energy: Efforts to Streamline Project Management at National Laboratories and Nuclear Sites

GAO-26-108520

Q&A

Report to Congressional Requesters

July 16, 2026

Why This Matters

The Department of Energy (DOE) spends billions of dollars annually to support national laboratories crucial for cutting edge research and other sites within the National Nuclear Security Administration's (NNSA) nuclear security enterprise. DOE and NNSA, a separately organized agency within DOE, carry out capital asset acquisitions for construction projects to modernize laboratory and site infrastructure and to acquire certain major items of equipment. The agencies manage capital asset projects estimated to cost more than \$50 million under DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*. The order requires increasingly senior leadership officials to determine whether to approve projects as they progress through various critical decision points (e.g., design approval) depending on the cost of the project.

In March 2025, the Secretary of Energy issued a memorandum directing revisions to DOE's order with the broad goal of improving efficiency and effectiveness. Specifically, these revisions seek to streamline capital asset project management by delegating decision-making to the appropriate level and reducing unnecessary administrative burdens for projects at the 16 DOE national laboratories and other NNSA sites operated by management and operating (M&O) contractors.

For over 30 years, we have reported on DOE's inadequate oversight of M&O contractors. Further, NNSA's and DOE's Office of Environmental Management's management of acquisitions, programs, and contractors have been on our High Risk List for two decades. As we have recently reported, many of DOE's capital asset acquisitions—particularly at NNSA and the Office of Environmental Management—are over budget and delayed.

We were asked to examine the potential implications of the Secretary's March 2025 memorandum for DOE's management of major programs and projects. This report provides information on how DOE program offices, including NNSA, are implementing the memorandum in managing ongoing projects and potential implications for project oversight.

Key Takeaways

- The Secretary directed revisions to DOE Order 413.3B to (1) allow increased delegation of approval authority for projects estimated to cost up to \$300 million; and (2) limit independent reviews for projects estimated to cost between \$300 million to \$1 billion to only those required at specific critical decision points.
- As of March 2026, DOE's process for revising DOE Order 413.3B to incorporate the Secretary's directed revisions was on hold. Some DOE offices and NNSA have taken varying steps to implement the Secretary's

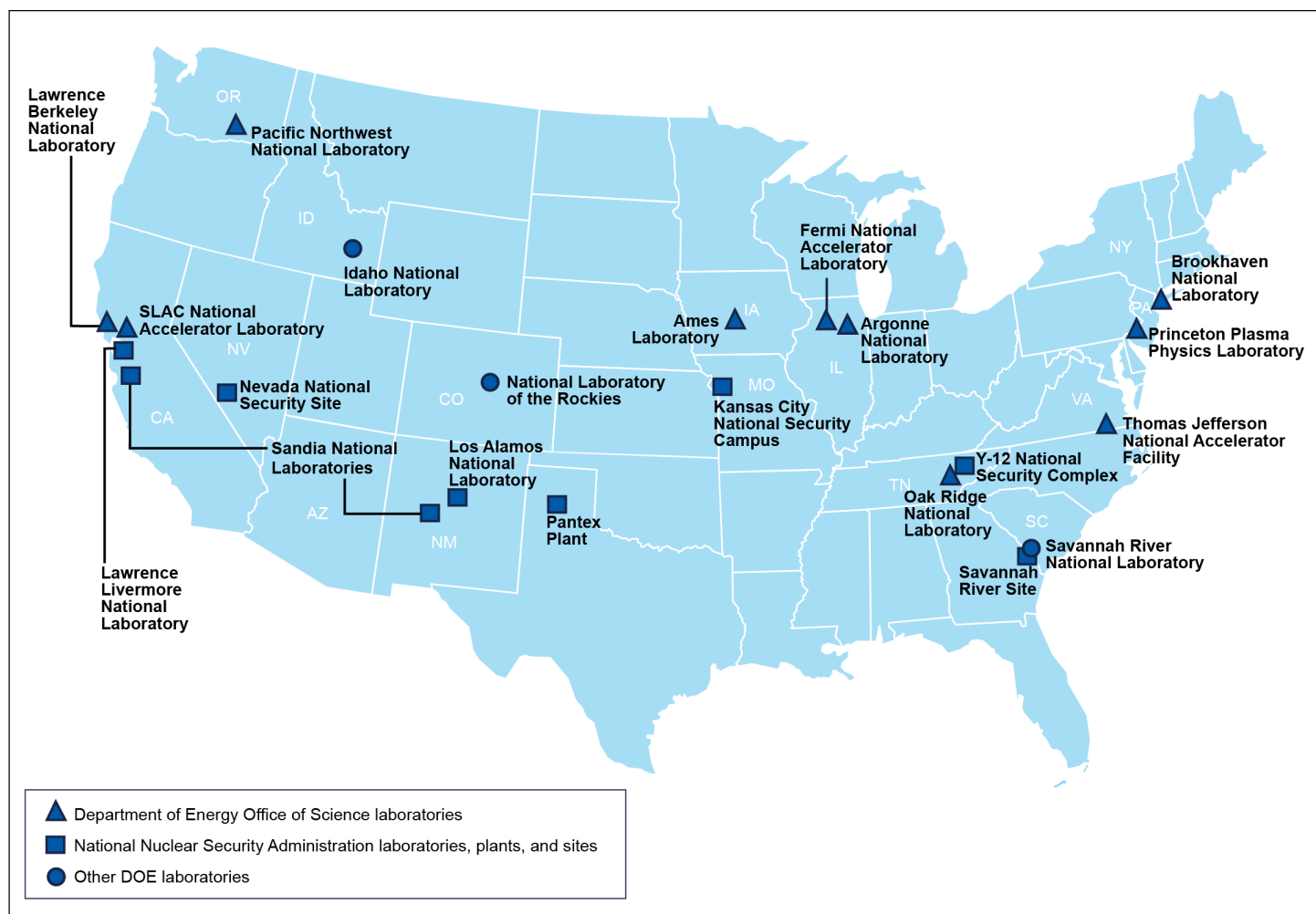
directed revisions. For example, DOE's Office of Science (Science) has delegated critical decision approval authority to a laboratory director for 20 projects at nine laboratories. NNSA is developing guidance to streamline project management and limit independent reviews.

- Not enough time has passed to determine whether the Secretary's directed revisions to the order have achieved the goal of more efficient and effective management of capital asset projects. Science officials stated that delegating critical decision approval authority could reduce costs and save time. On the other hand, we found delegating this approval authority from senior federal officials to national laboratory directors—who are M&O contractor personnel—could reduce federal oversight of these projects. Further, limiting independent reviews could increase the risk that issues are not identified in a timely manner, leading to increased costs and project delays.
- Science and NNSA officials said they will use the existing annual M&O contractor performance evaluation process to assess the effectiveness of the Secretary's revisions. But these evaluations do not provide an agencywide assessment of overall progress toward achieving desired goals.
- We recommend that DOE and NNSA establish specific outcome-oriented goals and performance measures to evaluate the effectiveness of the Secretary's directed revisions to streamline project management.

What laboratories and other sites does the Secretary's memorandum apply to?

The Secretary's March 2025 memorandum applies to 16 national laboratories, and NNSA extended the memorandum to its other nuclear enterprise sites. Specifically, the national laboratories include the 10 overseen by Science, the three overseen by NNSA, and three overseen by other DOE program offices. In addition, NNSA broadened the applicability of the Secretary's memorandum to also apply to its five nuclear weapons production facilities within NNSA's nuclear security enterprise, as shown in figure 1.¹ M&O contractors, made up of entities that include a mix of universities, private companies, and nonprofit organizations, carry out the day-to-day operations of the DOE and NNSA laboratories, plants, and sites.

Figure 1: Locations of Relevant Department of Energy and National Nuclear Security Administration Laboratories, Plants, and Sites



Sources: Department of Energy; Map Resources (map). | GAO-26-108520

Note: Not shown on the map is the National Energy Technology Laboratory, which is managed directly by DOE, not by a management and operating contractor. Also not shown are the National Nuclear Security Administration's Office of Naval Reactors' laboratories, which are not directly subject to DOE Order 413.3B but implement similar project management procedures.

Below we characterize the missions of the DOE and NNSA laboratories and other NNSA plants and sites.

- Science's 10 laboratories conduct fundamental physical science research to, for example, advance scientific computing and energy science.
- NNSA, in its three national security laboratories and five plants and sites, maintains and enhances the safety, security, and effectiveness of the nation's nuclear weapons stockpile and works to prevent nuclear proliferation.
- Office of Nuclear Energy's laboratory conducts research to help address America's energy, environmental, and nuclear challenges through transformative science and technology solutions.
- Office of Critical Minerals and Energy Innovation's laboratory bridges foundational research with practical applications to integrate various energy sources, storage, buildings, transportation, and emerging technologies.
- Office of Environmental Management's laboratory carries out applied research and development focused on three primary mission areas—national security, environmental stewardship, and energy resilience.

What projects do DOE and NNSA manage at the 16 national laboratories and other NNSA plants and sites?

As of January 2026, DOE and NNSA were managing 80 active capital asset projects at the 16 national laboratories and other NNSA plants and sites operated by M&O contractors. Each project has an estimated cost of more than \$50 million and collectively the projects are estimated to cost as much as \$65.5 billion to complete.² This overall portfolio of projects includes new facilities construction, infrastructure upgrades, and the acquisition of major items of equipment that vary widely in their purposes and estimated costs.³ Of the 80 projects, 59 are located at the national laboratories and 21 are located at the other NNSA plants and sites. While Science has been generally exempted from DOE Order 413.3B since 2011, officials told us they follow the order’s “sound management principles” in executing capital asset projects at the laboratories, and Science reports project management data consistent with the order.⁴ Revisions to the DOE order could affect up to 66 of the ongoing projects and future ones.

Table 1 summarizes the 59 active capital asset projects by national laboratory and DOE program office, which collectively total an estimated cost of as much as \$36.4 billion.⁵

Table 1: DOE and NNSA Capital Asset Project Costs, by National Laboratory, as of January 2026				
Dollars in millions				
Program office	Laboratory	Number of active projects	Estimated total project cost ranges	
			Low	High
DOE Office of Science	Ames National Laboratory	0	\$0	\$0
	Argonne National Laboratory	2	988.0	1,106.3
	Brookhaven National Laboratory	7	2,581.5	3,865.5
	Fermi National Accelerator Laboratory	6	2,393.7	2,814.7
	Lawrence Berkeley National Laboratory	5	1,262.3	1,879.3
	Oak Ridge National Laboratory	9	3,351.4	5,352.7
	Pacific Northwest National Laboratory	1	122.0	122.0
	Princeton Plasma Physics Laboratory	2	189.8	207.6
	SLAC National Accelerator Laboratory	4	1,060.5	1,088.5
	Thomas Jefferson National Accelerator Laboratory	2	167.3	188.3
	National Laboratory of the Rockies	1	225.0	225.0
Office of Critical Minerals and Energy Innovation	Savannah River National Laboratory	0	0	0
Office of Environmental Management	Idaho National Laboratory	4	2,981.6	6,364.2
National Nuclear Security Administration (NNSA)	Lawrence Livermore National Laboratory	3	897.7	1,640.7
	Los Alamos National Laboratory	11	6,074.8	7,281.8
	Sandia National Laboratories	2	2,370.0	4,270.0
Total		59	\$24,665.6	\$36,406.6

Source: GAO summary of Department of Energy (DOE) project data. | GAO-26-108520

Note: This table includes the number of projects at each national laboratory with an estimated total project cost of more than \$50 million that is subject to DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*. For projects that do not yet have an approved estimated cost baseline, we report the low-end and high-end total project cost estimate range for the project’s preliminary design.

Examples of these projects and their estimated total costs to complete include:

- Advanced Light Source Upgrade project at the Lawrence Berkeley National Laboratory in California to replace the existing 32-year-old facility with a new fourth-generation accelerator intended to support the research of 2,000 users annually (\$590 million);
- Spallation Neutron Source Proton Power Upgrade project at the Oak Ridge National Laboratory in Tennessee to design, build, install, and test the

equipment necessary to double the accelerator power capability (\$272 million); and

- Los Alamos Plutonium Pit Production Project—30 Base Installation Subproject, at the Los Alamos National Laboratory in New Mexico to design, fabricate, and install gloveboxes and other highly specialized equipment to support the base capability to build 30 war reserve plutonium pits (the core of a nuclear weapon) per year (\$1.864 billion).

Table 2 lists the 21 active projects at NNSA’s plants and sites and their estimated costs, which total as much as \$29.1 billion.

Table 2: NNSA Capital Asset Project Costs by Plant or Site, as of January 2026

Dollars in millions

NNSA plant or site	Number of active projects	Estimated total project cost ranges	
		Low	High
Kansas City National Security Campus	0	\$0	\$0
Nevada National Security Site	5	2,830.1	3,101.9
Pantex Plant	3	504	1,092.8
Savannah River Site	6	1,440.9	12,805.9
Y-12 National Security Complex	7	11,433.2	12,123.2
Total	21	\$16,208.2	\$29,123.8

Source: GAO summary of National Nuclear Security Administration (NNSA) project data. | GAO-26-108520

Note: This table includes the number of projects at each NNSA site with an estimated total project cost of more than \$50 million that is subject to DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*. For projects that do not yet have an approved estimated cost baseline, we report the low end and high-end total project cost estimate range for the project’s preliminary design. For the Kansas City National Security Campus, we do not include the estimated \$6.4 billion Kansas City Non-Nuclear Expansion Transformation Project to expand the site’s capabilities over the next 20 years because it is being executed through a series of lease-to-own agreements rather than as a capital asset project. For the Savannah River Site, the project costs include \$10.65 billion for the Savannah River Plutonium Processing Facility, which was at the top of the project’s preliminary estimated cost range approved on June 25, 2021. However, the estimated cost of the project is being reassessed, and in NNSA’s fiscal year 2027 budget request, NNSA estimated the total cost of the project could be as much as \$25 billion.

Examples of these projects and their estimated total costs to complete include:

- Enhanced Capabilities for Subcritical Experiments Laboratory and Support Infrastructure project at the Nevada National Security Sites in Nevada that includes mining new tunnels in an existing underground experimental complex, modifying existing tunnels, constructing power and cooling utilities aboveground and constructing diagnostic and control rooms belowground in support of NNSA underground subcritical plutonium experiments (\$830 million);⁶
- High Explosives Science and Engineering Facility project at the Pantex Plant in Texas to build three new structures and associated ramps to improve operational efficiency. The project would replace 15 outdated laboratory facilities that are, on average, more than 60 years old (\$300 million); and
- Calcliner Project at the Y-12 National Security Complex in Tennessee to support the replacement of aging and inherently hazardous equipment with new equipment and systems for processing recovered uranium into a dry solid that can be stored for further processing (\$213 million).

How does the Secretary’s memorandum change current thresholds for delegating project authority?

The Secretary’s March 2025 memorandum directs revision of the cost threshold for delegating project authority from \$50 million to \$300 million.⁷ For example, according to Science officials, this direction authorizes Science to delegate national laboratory directors to serve as the project management executive for projects with a total estimated cost of \$300 million or less, empowering them to authorize projects to progress through key milestones. Of the 80 active DOE and NNSA projects at the laboratories and NNSA plants and sites, 41 currently have an estimated total cost of \$300 million or less.

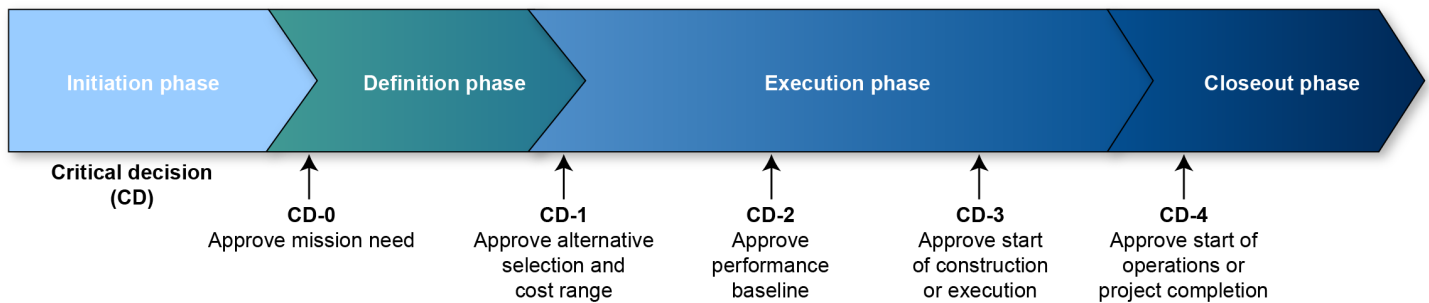
Under the current version of the order, the project management executive is typically an increasingly senior DOE or NNSA official assigned based on the initial rough order of magnitude cost estimate range for a project’s total cost. For example, the DOE Deputy Secretary is the designated project management executive for “major system projects”—those with a total estimated cost of \$750 million or more. The NNSA Administrator and the Under Secretary for Science are the designated project management executives for NNSA or Science projects, respectively, for projects with a total estimated cost between \$100 million and \$750 million. The current cost thresholds in DOE’s order for delegating this authority to a qualified, less-senior official are shown in table 3.

Table 3: DOE Order 413.3B Thresholds for Delegating Project Management Executive Authority		
Project management executive	Description	Total project cost thresholds
Deputy Secretary	Chief Executive for Project Management responsible for all project acquisitions.	≥ \$750 million further delegation allowed
Under Secretary	There are three Under Secretaries—one each for Energy, Science, and Nuclear Security the Under Secretary for Nuclear Security is also the Administrator of the National Nuclear Security Administration.	≥ \$100 million and < \$750 million further delegation allowed
Program Secretarial Officer	Headquarters-level Assistant Secretaries, Deputy Administrators, and Directors who have management responsibility for program planning, budgeting, and execution of mission program activities. These differ by program office.	> \$50 million and < \$100 million further delegation allowed

Source: GAO summary of Department of Energy (DOE) information on DOE Order 413.3B, last revised in June 2023. | GAO-26-108520

As currently written, the order prescribes three main project management phases—initiation, definition, and execution—which are further divided into “critical decision” milestones (see fig. 2). Under the order, the project management executive is responsible for reviewing and approving a project to proceed through each critical decision (CD) milestone as it transitions from planning and design to construction, and then to the start of operations. For example, at CD-1 a preferred alternative is selected following an analysis of alternatives, a federal project director is appointed, and the project’s preliminary estimates for cost and completion (which are expressed as ranges) are approved. This approval authorizes the project to proceed to finalize its scope, cost, and schedule estimates. At CD-2, the project’s scope, cost, and completion date baselines, collectively referred to as the performance baseline, are established and approved. The order outlines the documentation that must be approved by the project management executive for each CD, including the results of external and independent reviews.

Figure 2: Department of Energy's Project Phases and Critical Decision Milestones for Capital Asset Projects



Source: GAO analysis of Department of Energy (DOE) and National Nuclear Security Administration (NNSA) information. | GAO-26-108520

How does the Secretary's memorandum change the order's current independent review requirements?

The Secretary's memorandum directs DOE Order 413.3B be revised to require that independent project reviews only be conducted at specific critical decision points for projects between \$300 million and \$1 billion, subject to successful project execution. The memorandum does not specify what is meant by "independent project reviews" or "successful project execution" but, according to Science and NNSA officials, this direction exempts projects with an estimated total cost of less than \$300 million from a variety of the independent review requirements in the order. The officials told us they were still evaluating how the independent review requirements for projects between \$300 million and \$1 billion would change. For projects estimated to cost more than \$1 billion, the memorandum stated that there would be no changes in independent review requirements.

The current order requires a variety of independent reviews throughout a project to help assure projects stay on track, within schedule, and within budget. These reviews provide peer and subject matter expert opinion and feedback on the project's performance and readiness to proceed to the next CD milestone. Independent reviews are conducted by experts outside of the project team to ensure an objective evaluation of a project's design, technical scope, and cost and schedule baselines at specific CD points, or performance against those baselines. Independent reviews include the following:

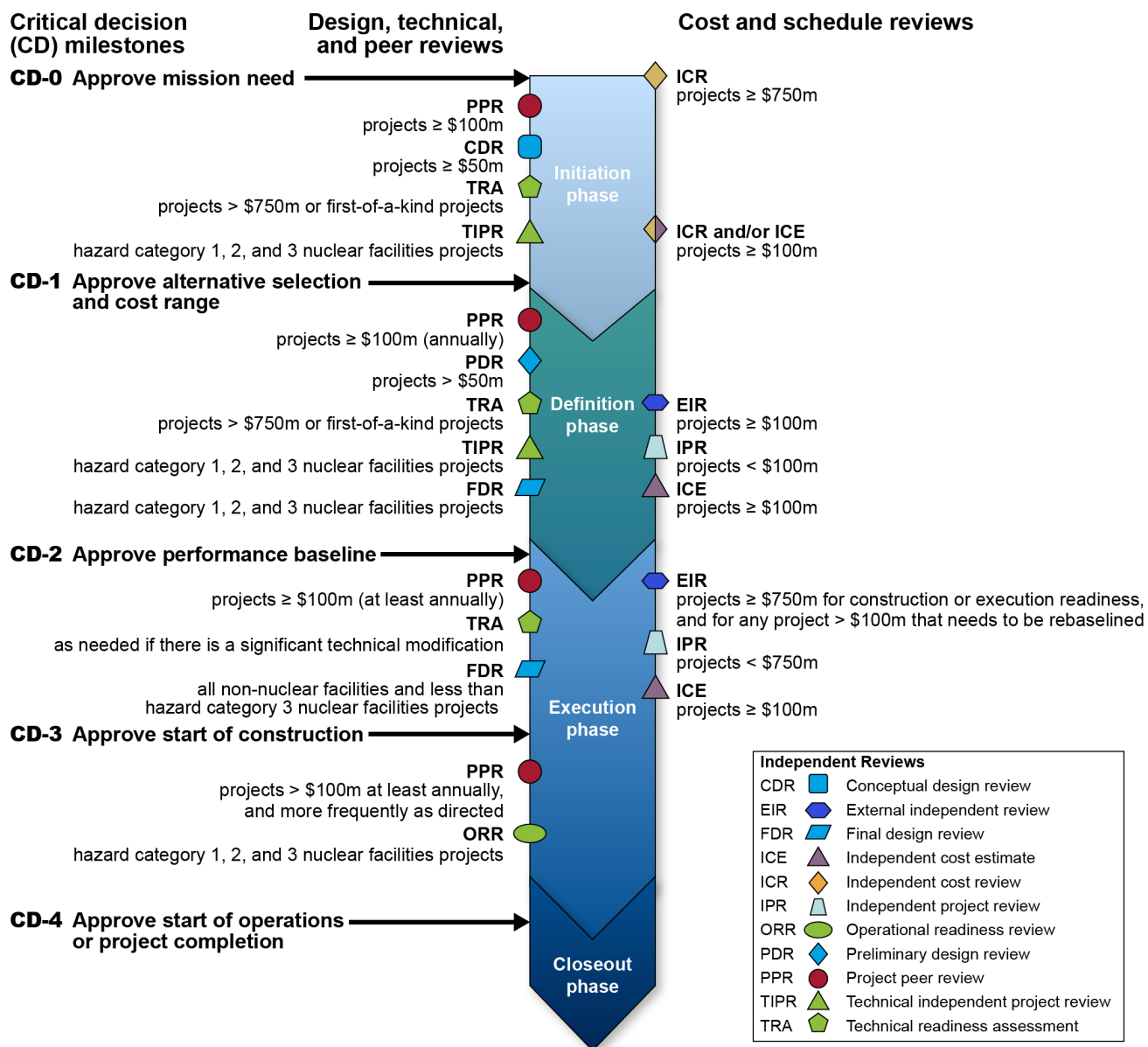
- **Design reviews.** Design reviews are conducted to ensure design quality and maturity, including assessing whether the design meets the project's operational and functional objectives. These reviews are required for all projects costing more than \$50 million and typically include a *conceptual design review* prior to CD-1, *preliminary design review* prior to CD-2, and *final design review* prior to CD-3.⁸
- **Technical reviews.** *Technical independent project reviews* are conducted prior to CD-2 to assess the extent to which safety has been effectively integrated into the design and construction for hazard category 1, 2, and 3 nuclear facilities projects costing more than \$50 million. *Technology readiness assessments* are required to examine the maturity of technologies and their readiness for major system projects (those costing greater than \$750 million) or first-of-a-kind projects. These reviews are required to be conducted prior to CD-1 and CD-2, and as needed if there is a significant technical modification to a major system project prior to CD-3.
- **Cost and schedule reviews.** The type, rigor, and frequency of independent cost and schedule reviews vary depending on the estimated cost of the project. For example, an *independent cost review* is required for projects costing \$750 million or more prior to CD-0. For projects costing \$100 million or more, an *independent cost review* or *independent cost estimate* is required prior to CD-1 depending on the confidence in the quality of the cost estimate

range, and an *independent cost estimate* prior to CD-2 and CD-3. The *independent cost estimates* at CD-2 and CD-3 have been required by annual appropriations acts since 2011.⁹ These reviews include preparation of a new, independent estimate to validate the reasonableness of the estimate prepared by the project team using the same detailed technical and procurement information. The order also requires an *external independent review* to be conducted prior to CD-2 and CD-3 for projects costing \$100 million or more.¹⁰ The purpose of the reviews is to provide an unbiased independent assessment of whether a project can be executed within the proposed scope, schedule, and cost commitments. For projects costing less than \$100 million, an *independent project review* is conducted to validate a project's cost and schedule baselines prior to CD-2.

- **Peer reviews.** The order also requires *project peer reviews* be conducted periodically as a project progresses. These reviews are focused, in-depth reviews conducted by subject matter experts independent of the project, as appropriate. They are intended to help evaluate whether the technical assumptions, management approach, and cost and scope, among other elements, are valid and credible. The order currently prescribes that, for projects estimated to cost \$100 million or more, these reviews be conducted between CD-0 and CD-1, annually between CD-1 and CD-2, and at least annually between CD-2 and CD-4. They can occur more frequently for the most complex projects, those experiencing performance challenges, or as requested by the program office.

These independent design, technical, and cost and schedule reviews required by DOE Order 413.B are summarized by CD milestone in figure 3 below. The respective reviews are generally required to be completed prior to approval to transition to the next project phase and CD milestone, except for project peer reviews, which are conducted after the CD approval.

Figure 3: Independent Reviews Required by DOE Order 413.3B by Critical Decision Milestone and Project Phase



Source: GAO analysis of Department of Energy information. | GAO-26-108520

Note: This figure illustrates independent reviews required by DOE Order 413.3B. For the cost and schedule reviews included in the figure, we focused on the requirements for projects estimated to cost \$100 million or more. For projects costing less than \$100 million, the only cost and schedule review required by the order is an independent project review required to be conducted by the program office for prior to approval of the baselines at CD-2. DOE Office of Science policy and an NNSA supplemental directive provide additional guidance on independent cost and schedule review requirements for these projects.

As mentioned above, as of January 2026, there were 41 active projects at the DOE national laboratories and NNSA sites with an estimated total cost of \$300 million or less. These are the projects that could generally be exempted from the order's independent review requirements in response to the Secretary's memorandum. Instead, for these projects, many of the reviews described above would not be required but could be conducted at the direction of the project director or program office. The only independent review requirements in the order that would necessarily remain are those required by statute, which currently includes the independent cost estimates required at CD-2 and CD-3 for projects costing more than \$100 million. The total number of independent reviews that would be eliminated over the course of a project would depend on project costs and durations and whether program offices request such reviews as they deem appropriate.

As of January 2026, there were another 25 active projects at the DOE national laboratories and NNSA sites with estimated total costs between \$300 million and \$1 billion for which independent reviews could be tailored to only those required at specific CD points. Officials also explained that the order currently allows for tailoring project reviews.

According to the order, projects should tailor reviews using a graded approach considering a project's size, complexity, costs, and risks rather than specific cost ranges.¹¹ The order describes tailoring as necessary for the efficient delivery of projects, but states that this does not imply the omission of requirements which must all be addressed to the extent necessary and practical. Tailoring could include consolidation of critical decision phases, concurrent review processes, or adjusting the scope of independent reviews, among other things. For example, an external independent review and independent cost review can be combined when the approvals of CD-2, for a project's baseline, and CD-3, for start of construction, are consolidated and decided at the same time.

According to DOE Office of Project Management officials and NNSA officials, the Secretary's directive would eliminate the requirements for project peer reviews because they are not required at specific CD points. DOE and NNSA officials told us that project peer reviews could still be conducted if requested by the project management executive, for example if there were concerns about a project's performance.

The number of project peer reviews that could potentially be eliminated by implementing the Secretary's revision depends on the length of each project and frequency of the review. For example, according to our analysis, the 8 active projects at the national laboratories estimated to cost between \$300 million and \$1 billion that have CD-3 approval to start construction have planned schedules ranging from about 5 years to almost 12 years to reach CD-4 approval of project completion or start of operations; and under the current version of the order a peer review would be conducted for each of these projects at least annually.

What actions have DOE and NNSA taken to revise the order to address the Secretary's memorandum?

In March 2026, DOE Office of Project Management officials told us that the formal process to revise the order to incorporate changes directed by the Secretary's memorandum was on hold.¹² Officials said that initially the hold was partly due to the departure of a senior DOE leadership official in June 2025 who was deputy chair of the directives review board that manages the process for updating departmental orders. The officials told us it was uncertain what changes would be made to the order's delegation thresholds and independent review requirements, and that they did not have a time frame for completing this effort. In addition, NNSA officials told us that NNSA was still determining whether revisions were needed to its policies and supplemental directives related to DOE Order 413.3B.¹³

In the interim, Science, NNSA, and certain other DOE offices have taken actions to implement the Secretary's memorandum.

What actions has Science taken to implement the Secretary's memorandum?

In April 2025, Science issued a memorandum establishing a process and set of expectations for delegating project management executive critical decision approval authority to national laboratory directors for projects under the \$300 million threshold.¹⁴ For example, for delegated projects the laboratory director must submit an acknowledgment letter, and projects must continue to follow the order's sound management principles. In addition, the project team must develop the equivalent of a project execution plan as well as progress milestones for project completion and continue reporting project performance data in DOE's Project Assessment and Reporting System, among other things. Further, the

memorandum indicated that delegation could be revoked if a project experienced ongoing management issues or a lack of technical progress.

As part of its memorandum, Science delegated critical decision approval authority to the respective national laboratory directors for 20 projects at nine of its laboratories. Table 4 lists these projects, their cost, and current critical decision phase (i.e., the most recent CD approved). Of these projects, 15 have started construction and one project was completed in September 2025.

Table 4: DOE Office of Science Projects with Critical Decision Approval Authority Delegated to the National Laboratory Director, as of January 2026

Laboratory	Project name	Current estimated total project cost (dollars in millions)	Current critical decision (CD) phase
Ames National Laboratory	Ames Infrastructure Modernization	\$31.0 ^a	CD-3
Argonne National Laboratory	Argonne Utilities Upgrade	173 to 291.3	CD-1/3A ^b
Brookhaven National Laboratory	Critical Utilities Rehabilitation Project	92.8	CD-3
	Nanoscale Science Research Centers Recapitalization	80.0	CD-3
	National Synchrotron Light Source Experimental Tools-II	94.5	CD-3
	Science User Support Center	86.2	CD-3
Lawrence Berkeley National Laboratory	Biological & Environmental Program Integration Center	167.2	CD-4
	Gamma Ray Energy Tracking Array	58.3	CD-3
	Linear Assets Modernization Project	169 to 386.0	CD-1
	National Energy Research Scientific Computing Center-10	150.0	CD-3
	Seismic and Safety Modernization	145.0	CD-3
Oak Ridge National Laboratory	Material Plasma Exposure eXperiment	201.0	CD-3
	Spallation Neutron Source Proton Power Upgrade	271.6	CD-3
Pacific Northwest National Laboratory	Microbial Molecular Phenotyping Capability Project	122.0	CD-3
Princeton Plasma Physics Laboratory	Critical Infrastructure Recovery & Renewal	80.1 to 97.9	CD-1/3A ^b
	Princeton Plasma Innovation Center	109.7	CD-3
SLAC National Accelerator Laboratory	Critical Utilities Infrastructure Revitalization	208.5	CD-3
	Cryomodule Repair and Maintenance Facility	70 to 98.0	CD-1
	Large Scale Collaboration Center	66.0	CD-3
Thomas Jefferson National Accelerator Laboratory	Continuous Electron Beam Accelerator Facility Renovation & Expansion	90.3	CD-3

Source: GAO analysis of Department of Energy (DOE) information and data. | GAO-26-108520

^aThis project was included in the list of delegated projects even though it has a total cost below the \$50 million applicability threshold in DOE Order 413.3B.

^bWhile these projects have not yet had their performance baselines finalized, they have been approved to begin long-lead procurements to obtain equipment, materials, and services (CD-3A) to ensure they are available for the planned start date for construction. For projects that do not yet have an approved estimated cost baseline, we used the low-end and high-end total project cost estimate range for the project's preliminary design.

Science has eight projects with estimated total costs of \$300 million or less for which critical decision authority was not delegated to the national laboratory director. Science officials cited various reasons for not delegating these projects, such as staffing shortages at the laboratory that could impact effective project management, project performance issues, an undetermined project scope, and the technical complexity and nuclear hazards of the projects.

Science officials told us that the office does not have a time frame for implementing the Secretary's direction to limit independent reviews for projects costing between \$300 million and \$1 billion. Officials told us they wanted to first allow time to assess how projects are performing following the delegation of critical decision approval authority to the national laboratory directors. The

officials noted that while Science has regularly utilized tailoring strategies to conduct independent project reviews, they would be evaluating opportunities to improve and streamline this process.

What actions has NNSA taken to implement the Secretary's memorandum?

NNSA's first action in response to the Secretary's memorandum was to issue an April 2025 memorandum stating that it would apply the Secretary's directed revisions to each of NNSA's plants and sites in the nuclear security enterprise, not only to its three national security laboratories.¹⁵ NNSA officials explained that because each of its sites is managed through an M&O contractor and work between them is cross-integrated, NNSA decided that a consistent set of requirements should apply to projects at all sites.

As of March 2026, NNSA officials told us they did not plan to delegate project management executive critical decision approval authority to laboratory directors or other M&O contractor representatives for any of its 13 projects with an estimated total cost of \$300 million or less. Officials said they had been advised by NNSA General Counsel that the role of project management executive involves inherently governmental functions that cannot be delegated to non-federal personnel.¹⁶ However, officials told us they have been evaluating options for limiting independent reviews as part of ongoing efforts to streamline project management that pre-dated the Secretary's memorandum.

Specifically in September 2025, NNSA received approval from the DOE Deputy Secretary to change aspects of its project management practices that included changes to project reviews.¹⁷ Among the changes are combining critical decision reviews and approvals, such as CD-0 and CD-1, and limiting independent project reviews prior to CD-1 and CD-2/3 to only those required by statute. For example, independent reviews are required by statute for new nuclear facilities within the nuclear security enterprise estimated to cost \$500 million or more prior to CD-0, CD-1, and CD-2.¹⁸ However, officials also recognize that it may be necessary to conduct other reviews based on various factors, such as performance issues or extensive time since the last review. For example, the Deputy Secretary's September memorandum also states that additional project reviews may be conducted as directed by the designated project management executive. NNSA officials told us they were coordinating with DOE's Office of Project Management to finalize NNSA's implementation guidance on these streamlining efforts and assess the projects for which it would be appropriate to conduct an independent review.

What actions have other DOE program offices taken to implement the Secretary's memorandum?

Other DOE program offices have taken some actions to implement the tailoring direction in the Secretary's memorandum. Office of Environmental Management officials told us they do not currently have any active projects managed through M&O contracts, so they were not taking any steps with respect to delegation of project approval authority based on the Secretary's memorandum. However, the officials indicated they plan to start limiting independent reviews to occur only at specific critical decision points for the office's projects costing between \$300 million and \$1 billion. The office has submitted documentation for this approach to the Deputy Secretary which was pending approval at the time of our review.

Similarly, officials with the Office of Critical Minerals and Energy Innovation told us they had prepared an implementation plan for delegating project authority and tailoring independent project reviews as outlined in the Secretary's memorandum. The plan was approved locally by the program office and, in January 2026, had been submitted for Secretary approval.

In April 2025, the Office of Nuclear Energy delegated project management executive critical decision authority to the national laboratory director for two of its

three projects at the Idaho National Laboratory with total estimated costs less than \$300 million.

What are potential implications of the Secretary's memorandum?

DOE and NNSA officials identified potential benefits from the Secretary's directed revisions, including improved efficiencies and cost savings. In our analysis, we additionally found the revisions could potentially limit independent project reviews and the support they provide for federal oversight. Not enough time has passed, however, to determine whether the Secretary's directed revisions have had these effects. This is because the agencies are in the early stages of implementing their respective actions, and DOE was still evaluating specific changes to the order, as of May 2026.

Science officials stated that delegating critical decision approval authority to the national laboratory directors as the program management executive for certain projects may lead to cost savings and improved efficiency. Officials said that delegating this authority to laboratory directors—i.e. shifting decision-making authority from federal management officials to non-federal contractor personnel—for lower-cost projects is intended to reduce federal oversight that laboratory directors consider to be duplicative. Officials told us that laboratory directors were already reviewing and approving the same set of documentation that would be submitted to designated senior federal officials for critical decision approval.

Science and NNSA officials said that limiting project reviews, especially for projects that are performing well, could also result in improved efficiency and potential cost savings. For example, Science officials said federal oversight could be more efficient by reducing time and resources devoted to independent reviews of successfully performing projects and allocating those resources to focus on projects that could use additional oversight, such as high-risk or poorly performing projects. NNSA officials told us that independent reviews can be seen to inhibit efficient project delivery if they result in significant delays, are not well-coordinated, or recommendations are not clearly articulated or aligned with project objectives. The NNSA officials noted, however, that streamlined, integrated reviews can provide clearer, more comprehensive information to decision-makers, leading to better resource allocation and fostering greater accountability for project performance.

NNSA guidance states that independent reviews are intended to make the project successful by providing objective, fact-based feedback on progress and areas for improvement. According to our analysis of DOE Order 413.3B as well as DOE and NNSA guidance, limiting project reviews, including project peer reviews, could have the following implications:¹⁹

- **Less assurance of the reliability of project cost and schedule estimates.** DOE's guidance states that the project reviews help assess the validity and credibility of cost and schedule estimates.²⁰ We have previously reported on instances where project reviews had this result. For example, as we reported in February 2026, NNSA documents showed that the Transuranic Liquid Waste Facility in New Mexico may experience a cost overrun and schedule delay, and a limited peer review was completed to support replanning efforts and to address expected cost increases.²¹
- **Less timely identification of potential problems.** According to DOE Order 413.3B, peer reviews constitute one of DOE's project management principles and are used throughout the project life cycle to assess performance issues and make course corrections. These reviews help DOE and NNSA to identify performance issues before significant problems arise. In 2011, DOE reported that it began implementing more frequent peer reviews as a corrective action

to long-standing project management challenges.²² As we reported in September 2025, NNSA determined, in its own root cause analysis, that poor contractor oversight and unreliable project performance data were contributing factors to the late awareness and notification of significant cost and schedule growth on its Uranium Processing Facility project, a major system project.²³ In 2008, we reported that conducting more frequent independent peer reviews contributed to Science's success in managing projects by helping it identify and address problems before they affected cost, schedule, and technical goals.²⁴ In 2009, we removed Science from our High Risk List in recognition of improved project management outcomes.²⁵

- **Less development of personnel expertise and fewer lessons learned.** According to the order, peer review teams are to be established with the agency's most talented federal and contractor personnel to develop project management expertise by learning from each other. Other benefits of the peer reviews include helping the agency to identify lessons learned in a more routine and timely manner. We reported in 2018 that DOE considered independent peer reviews to be a primary source of project management lessons learned for capital asset projects.²⁶

How do DOE and NNSA plan to evaluate the effectiveness of the Secretary's directions to streamline project management?

We found that DOE has not established specific goals or performance measures to evaluate the overall effectiveness of implementing the Secretary's directed revisions. In addition, Science and NNSA officials told us they have not developed any specific goals or performance measures to evaluate the effectiveness of actions taken to implement changes at the level of their individual offices. For example, Science officials said they did not have estimates of the potential cost savings or scheduling efficiencies, or plans to develop such estimates, that might be achieved by delegating critical decision approval authority to laboratory directors. Instead, they told us they would continue to use the existing annual contractor performance evaluation process that determines the M&O contractor's fee award to evaluate the implementation. Through this process, which is limited to providing information on performance at a particular laboratory or NNSA plant or site, the federal offices evaluate M&O contractors against performance goals, associated objectives, and key outcomes that are specified in the contract's annual performance evaluation plans. The performance goals focus on the M&O contractors' scientific and technical performance, overall leadership and stewardship, and managerial and operational performance.

For Science, officials told us that their evaluation of an M&O contractor's construction and infrastructure activities is an objective that factors into the evaluation of the goal for the contractor's managerial and operational performance.

For NNSA, officials explained that they recently elevated construction and infrastructure activities as a standalone goal in the annual M&O contractor performance evaluation plans for fiscal year 2025. They stated the intent of this change was to increase the visibility and accountability of M&O contractors' project execution performance and more directly link that performance to the overall ratings and fee earned. For example, in the fiscal year 2025 performance plan section of the Y-12 National Security Complex M&O contract, a new goal 5 was added to focus on evaluating the contractor's execution of capital construction projects in accordance with cost, scope, and schedule baselines. Officials told us that elevating this goal could also motivate M&O contractors to improve the accuracy and quality of the project cost estimates. Additionally, it could provide a financial incentive by providing a more direct connection to determining the fee award the contractor could earn for the year.

However, as noted above, the annual M&O performance evaluation process is limited to providing information on effectiveness of a contractor's project management at a particular laboratory or NNSA site. These evaluations will not provide data and evidence needed for DOE and NNSA to assess the overall, agencywide effectiveness of the actions taken toward achieving the broad goals of the Secretary's directed revisions.²⁷

Our 2018 report on agency reform efforts describes leading practices agencies can use in implementing reform efforts, including efforts to streamline and improve the efficiency and effectiveness of operations.²⁸ These practices include designing proposed reforms to achieve specific, identifiable goals, outcomes, and performance measures to help decision-makers reach a shared understanding of the purpose of the reforms.²⁹ In 2023, NNSA updated its policy on organizational change to reflect these practices, including using specific outcome-oriented goals and performance measures in determining whether intended goals or objectives of an organizational change were met.³⁰ By establishing clear goals, outcomes and performance measures for the Secretary's directed revisions, DOE and NNSA would be better positioned to determine and communicate whether the streamlining reforms are achieving the desired results.

Conclusions

DOE offices and NNSA have taken varying steps to implement the Secretary's directed revisions. While DOE and NNSA officials identified the potential for improved efficiencies and cost savings from these changes, especially for lower cost or successfully performing projects, our analysis found the changes could also result in less reliable project estimates and late identification of cost and schedule overruns. DOE and NNSA, however, do not have specific goals or performance measures to assess the overall effectiveness of the efforts to streamline project management, including any costs saved. Science and NNSA officials told us they will use the existing annual M&O contractor performance evaluation process to evaluate the implementation. These reviews, however, are limited to assessing contractor project management at a particular laboratory or NNSA site. Establishing clear goals, outcomes, and performance measures would better position DOE and NNSA to determine whether the agency streamlining reforms are achieving the desired results.

Recommendations for Executive Action

The Secretary of Energy should ensure that specific, identifiable goals, outcomes, and performance measures are established and used to evaluate the overall, agencywide effectiveness of the Secretary's directed revisions to streamline project management. (Recommendation 1)

The NNSA Administrator should ensure that specific, identifiable goals, outcomes, and performance measures are established and used to evaluate the overall, NNSA-wide effectiveness of the Secretary's directed revisions to streamline project management. (Recommendation 2)

Agency Comments

We provided a draft of this report to DOE for review and comment. In its comments, reproduced in Appendix I, DOE concurred with our recommendations. NNSA provided technical comments, which we incorporated as appropriate.

How GAO Did This Study

To describe how the Secretary's memorandum could change DOE's project management and independent review requirements, we identified the requirements in DOE Order 413.3B and compared them with the revisions directed in the Secretary's March 2025 memorandum. To describe how DOE and NNSA program offices are implementing the Secretary's directed revisions in

managing ongoing projects, we reviewed DOE Office of Science and NNSA memorandums and guidance documents. We also obtained and summarized DOE and NNSA project data maintained in DOE's Project Assessment and Reporting System database. To identify potential implications for project oversight, we reviewed DOE orders and guidance, and NNSA supplemental directives and policies, on conducting independent project reviews required by DOE Order 413.3B.

We conducted interviews with knowledgeable officials at DOE's Office of Science, Office of Project Assessment, Office of Project Management, and NNSA's Office of Cost Estimating and Program Evaluation, Office of Infrastructure, Office of Management and Budget, and Office of Partnership and Acquisition Services. We used these interviews to identify actions taken to implement the Secretary's memorandum, how DOE and NNSA planned to evaluate the effectiveness of the changes, and potential implications for federal oversight of M&O contractor's project performance.

We conducted this performance audit from June 2025 to July 2026 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 the Department of Energy



Department of Energy
Office of Science
Washington, DC 20585

June 29, 2026

Ms. Allison Bawden
Managing Director
National Resources and Environment
United States Government Accountability Office
441 G Street Northwest
Washington, DC 20548

Dear Ms. Bawden:

The Department of Energy (DOE or Department) appreciates the opportunity to comment on the Government Accountability Office's (GAO) draft report titled, "*Department of Energy: Efforts to Streamline Project Management at National Laboratories and Nuclear Sites (GAO-26-108520)*."

The draft report contained a total of two (2) recommendations to DOE. DOE concurred with GAO's recommendations.

GAO should direct any questions to Mr. Nicholas Dienna, Director, Science Laboratories Infrastructure, at (301) 830-2476.

Sincerely,

A handwritten signature in black ink, appearing to read "Harriet Kung", is positioned above the printed name.

Harriet Kung
Deputy Director for Science Programs

Enclosure

Response to Report Recommendations

Recommendation 1: The DOE Secretary should ensure that specific, identifiable goals, outcomes, and performance measures are established and used to evaluate the overall, agency-wide effectiveness of the Secretary's directed revisions to streamline project management.

DOE Response: Concur

DOE possesses a robust framework under **DOE Order 413.3B** and via the **Project Assessment and Reporting System (PARS)** that mandates the continuous collection, measurement, and reporting of rigorous project performance metrics. These existing requirements capture critical data points, including Earned Value Management System (EVMS) indices, baseline deviation frequencies, and phase-by-phase schedule durations, for all applicable capital asset projects.

Rather than creating a redundant reporting mechanism, DOE will leverage these existing, mandated PARS data fields to evaluate the overall, agencywide effectiveness of the Secretary's directed revisions to streamline project management. Specifically, DOE will:

1. **Establish a Comparative Evaluation Methodology:** DOE will systematically compare the performance metrics of streamlined projects—specifically those utilizing tailoring strategies and consolidated Critical Decisions authorized under DOE Order 413.3B, Appendix C—against a baseline of non-streamlined (traditional) projects of similar scope and complexity.
2. **Analyze Key Performance Indicators (KPIs):** The comparative analysis will focus on existing PARS data points to determine if streamlining efforts achieve their goals without introducing baseline instability.
3. **Report Agencywide Effectiveness:** The Office of Science will synthesize these comparative findings into a continuous assessment process to determine whether the streamlined pathways successfully accelerate project delivery while maintaining adherence to cost, schedule, and technical baselines.

Estimated Completion Date: September 30, 2027

Recommendation 2: The NNSA Administrator should ensure that specific, identifiable goals, outcomes, and performance measures are established and used to evaluate the overall, NNSA-wide effectiveness of the Secretary's directed revisions to streamline project management.

DOE Response: Concur

NNSA currently captures a wide variety of metrics to evaluate project performance. In coordination with DOE, NNSA will support implementation of the processes described in response to Recommendation 1, as necessary.

Estimated Completion Date: September 30, 2027

List of Addressees

The Honorable Patty Murray
Ranking Member
Subcommittee on Energy and Water Development
Committee on Appropriations
United States Senate

The Honorable Marcy Kaptur
Ranking Member
Subcommittee on Energy and Water Development
Committee on Appropriations
House of Representatives

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

GAO Contact Information

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Endnotes

¹The statutory definition of the term “nuclear security enterprise” is the physical facilities, technology, and human capital of the national security laboratories and the nuclear weapons production facilities. 10 U.S.C. § 6101(5). For purposes of this report, we refer to elements of the nuclear security enterprise in the manner NNSA commonly does as “laboratories, plants, and sites.”

²DOE’s order on project management for capital asset projects applies to all projects estimated to cost more than \$50 million. Department of Energy, *Program and Project Management for the Acquisition of Capital Asset*, DOE Order 413.3B (Change 7) (Washington, D.C.: June 21, 2023).

³DOE defines a capital asset project as a project with defined start and end points required in the acquisition of a capital asset. Capital assets are defined as land, structures, equipment, and intellectual property, which are used by the federal government and have an estimated useful life of two years or more. Major items of equipment acquisitions are defined as 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.

⁴Department of Energy, Office of Science, *Office of Science is Exempt from DOE Order 413.3B, Program and Project Management for the Acquisition of Capital Assets*, Office of the Director Memorandum for Office of Science Associate Directors (Washington, D.C.: Feb. 2, 2011).

⁵For projects that do not yet have an approved estimated cost baseline, we used the low-end and high-end total project cost estimate range for preliminary design.

⁶This is a subproject of the U1a Complex Enhance Project. Subcritical experiments do not produce a self-sustaining nuclear fission chain reaction.

⁷Department of Energy, the Secretary of Energy, *Strengthening National Laboratory Efficiency and Mission Execution*, Memorandum for Heads of Departmental Elements and National Laboratory Directors (Washington, D.C.: Mar. 21, 2025). The memorandum includes several provisions for changes to project management at the laboratories, but for our report we focus on those pertaining to DOE Order 413.3B.

⁸For hazard category 1, 2, and 3 nuclear facilities the final design review is also completed prior to CD-2 approval.

⁹Since 2011, annual appropriations acts have restricted funds for approval of CD-2 (performance baseline) and CD-3 (start of construction) for projects exceeding \$100 million until an independent cost estimate has been developed. See, e.g., Commerce, Justice, Science; Energy and Water Development; and Interior and Environment Appropriations Act, 2026, Pub. L. No. 119-74, div. B, title III, § 303, 140 Stat. 5, 86.

¹⁰An external independent review to assess construction or execution readiness is required prior to CD-3 for projects costing \$750 million or more. An external independent review will be conducted for projects that need to be re-baselined after CD-3 approval.

¹¹The order requires that a project's tailoring strategy be documented and approved by the project management executive.

¹²DOE's Office of Project Management is responsible for DOE Order 413.3B within its broader responsibilities for providing leadership and assistance in developing and implementing DOE-wide policies, procedures, programs, and management systems pertaining to project management, and independently monitoring, assessing, and reporting on project performance.

¹³NNSA uses directives including NNSA Policies and Supplemental Directives as its primary means to establish, communicate, and institutionalize policies, requirements, responsibilities, and procedures specific to NNSA elements and contractors.

¹⁴Department of Energy, Office of Science, *Delegated Project Authority for the Office of Science National Laboratories*, Deputy Director for Science and Deputy Director for Operations Memorandum for Office of Science National Laboratory Directors (Washington, D.C.: Apr. 29, 2025).

¹⁵National Nuclear Security Administration, *National Nuclear Security Administration's (NNSA) Action Taken Regarding S-1 Memo, "Strengthening National Laboratory Efficiency and Mission Execution"*, Director Office of Partnership Services Management and Operating Head of Contracting Activity Memorandum for National Nuclear Security Administration Contracting Officers (Washington, D.C.: Apr. 17, 2025).

¹⁶As a separately organized agency within DOE, NNSA has its own General Counsel, or chief legal officer, apart from that of the department. The NNSA Administrator may also establish administration-specific policies, unless disapproved by the Secretary of Energy. 50 U.S.C. §§ 2407, 2402(d).

¹⁷Other memoranda also delegated to NNSA the authority to appoint and certify federal project directors for all NNSA projects, certify earned value management systems, and apply varying levels of confidence in establishing project baselines, among other things.

¹⁸Under 50 U.S.C. § 2411, NNSA's Office of Cost Estimating and Program Evaluation is responsible for conducting independent cost reviews and independent cost estimates that are required by statute, DOE and NNSA policy, or at the request of the Administrator. Statutory requirements for when independent cost estimates and independent cost reviews are to be performed are codified at 10 U.S.C. § 6125. Most of these requirements are for major atomic energy defense acquisition programs managed under the Phase X or Phase 6.X process, which are not applicable to capital asset projects conducted according to DOE Order 413.3B. However, 10 U.S.C. § 6125(b)(1)(A)(v) requires an independent cost estimate for each new nuclear facility within the nuclear security enterprise that is estimated to cost more than \$500 million before such facility achieves CD-1 and before such facility achieves CD-2 in the acquisition process. Independent acquisition project reviews are required to be conducted prior to CD-0, CD-1, and CD-2 for defense-funded NNSA capital asset projects costing more than \$500 million. 10 U.S.C. § 6312. In 2011, Congress enacted additional reporting requirements for certain NNSA construction projects that will exceed their approved cost baseline by 25 percent or more. 10 U.S.C. § 6284.

¹⁹According to the order, project peer reviews form one of DOE's project management principles for successful project execution. Utilization of peer reviews throughout the life of a project is intended

to appropriately assess and make course corrections to improve performance.

²⁰Department of Energy, *Project Reviews for Capital Asset Projects*, DOE G 413.3-9A (Washington, D.C.: Sept. 14, 2018).

²¹GAO, *Nuclear Security Enterprise: Assessments of NNSA Major Projects*, [GAO-26-107777](#) (Washington, D.C.: Feb. 26, 2026).

²²Department of Energy, *Root Cause Analysis and Corrective Action Plan Closure Report* (Washington, D.C.: Feb. 2011). See also GAO, *High-Risk Series: An Update*, [GAO-11-278](#) (Washington, D.C.: Feb. 16, 2011).

²³GAO, *Modernizing the Nuclear Security Enterprise: Opportunities Exist to Better Prepare for Delay in New Uranium Processing Facility*, [GAO-25-107330](#) (Washington, D.C.: Sept. 18, 2025).

²⁴GAO, *Department of Energy: Office of Science Has Kept Majority of Projects within Budget and on Schedule, but Funding and Other Challenges May Grow*, [GAO-08-641](#) (Washington, D.C.: May 30, 2008).

²⁵GAO, *High-Risk Series: An Update*, [GAO-09-271](#) (Washington, D.C.: Jan. 22, 2009).

²⁶GAO, *Project Management: DOE and NNSA Should Improve Their Lessons-Learned Process for Capital Asset Projects*, [GAO-19-25](#) (Washington, D.C.: Dec. 21, 2018).

²⁷These broad goals include streamlining capital asset project management processes, placing decision-making at the appropriate level, and reducing unnecessary administrative burden.

²⁸GAO, *Government Reorganization: Key Questions to Assess Agency Reform Efforts*, [GAO-18-427](#) (Washington, D.C.: June 13, 2018). The term “reform” broadly includes any organizational changes—such as transformations, mergers, consolidations, and other reorganizations—as well as efforts to streamline and improve the efficiency and effectiveness of government operations.

²⁹[GAO-18-427](#). Outcomes are defined as the desired results of products and services delivered by a program or activity.

³⁰National Nuclear Security Administration, Management and Budget, *Organizational Change Policy*, NAP 110.2 (Aug. 21, 2023).