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Congressional Committees

Financial Management: DOE and NNSA Have Opportunities to Improve Management of Carryover Balances

Congress appropriates funds to the Department of Energy (DOE) every fiscal year to provide new authority to enter into financial obligations that will result in immediate or future outlays of federal funds to achieve desired missions, and many of these funds may be carried over from year to year.¹ These funds support various DOE missions, including those of its Office of Environmental Management (EM) and National Nuclear Security Administration (NNSA), which oversee the cleanup of DOE's legacy sites and the operation of the nuclear security enterprise, respectively. Specifically, EM has a mission to clean up radioactive and hazardous contamination produced by more than five decades of nuclear energy and weapons production and research. NNSA has missions to maintain and modernize the U.S. nuclear weapons stockpile and to lead and support nuclear nonproliferation efforts. EM and NNSA rely on and oversee management and operating (M&O) contractors to execute these agencies' missions.²

A majority of the funds appropriated to EM and NNSA to support their missions remain available for obligation until they are expended, or costed.³ Appropriated funds that remain available

¹An agency's obligational authority is the sum of (1) budget authority enacted for a given fiscal year, (2) unobligated balances of amounts that have not expired brought forward from prior years, (3) amounts of offsetting collections to be credited and available to specific funds or accounts during that year, and (4) budget authority transferred from other funds or accounts. The balance of obligational authority is an amount carried over from one year to the next if the budget authority is available for obligation in the next fiscal year. Not all obligational authority that becomes available in a fiscal year is obligated and paid out in that same year. Balances are described as (1) obligated, (2) unobligated, or (3) unexpended. An outlay is the issuance of checks, disbursement of cash, or electronic transfer of funds made to liquidate a federal obligation. GAO, *A Glossary of Terms Used in the Federal Budget Process*, [GAO-05-734SP](#) (Washington, D.C.: September 2005).

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

³The terms "expended" and "costed" are often used interchangeably by DOE and NNSA and are used interchangeably in instances in this report. However, there are minor technical differences. Expenditures, or outlays, refer to when an obligation is actually liquidated through issuance of a check, electronic transfer of funds, or disbursement of cash. An obligation is considered "costed" after the invoice for work has been received, the work has been completed to government satisfaction, and/or the invoice is approved for payment. Costs can also include accruals, which are DOE's estimates of work performed during a period but for which an invoice has not been received.

indefinitely are commonly referred to as "no-year" funds.⁴ With no-year funding authority, EM and NNSA may retain unobligated⁵ and unexpended,⁶ or "uncosted," balances indefinitely. These types of balances are collectively referred to as "carryover balances."

We have reported on DOE's efforts to manage its carryover balances since 1996. In April 1996, we found that DOE was accumulating uncosted balances and persistently carrying them over for expenditure in future fiscal years without adjusting future years' budget requests in consideration of these balances.⁷ At the time, we reported that DOE's large and persistent carryover balances raised concerns within the department and Congress that DOE was carrying over balances that exceeded the minimum needed to support its programs, tying up resources that could be put to other uses. We also found that DOE did not have a standard, effective approach for identifying excess carryover balances that might be available to reduce future budget requests and that it relied on broad estimates of potentially excess balances in its individual programs. Moreover, our review found that trends in uncosted balances showed that the balances increased from \$7.7 billion in fiscal year 1991 to \$12 billion in fiscal year 1995. Based in part on recommendations from our 1996 report, DOE established targets, or "thresholds," for reviewing uncosted balances carried over into each subsequent fiscal year for operating funds and recapitalization projects funded with operating dollars.⁸

Since DOE established its carryover thresholds for uncosted balances, we have conducted numerous technical assistance reviews for relevant congressional committees that evaluated EM's and NNSA's carryover balances against these thresholds.⁹ These reviews have helped

⁴In a May 2018 communication to the House of Representatives Joint Select Committee on Budget and Appropriations Process Reform, the Congressional Budget Office reported that approximately 92 percent of DOE's budget authority was no-year funding for fiscal year 2017. Congressional Budget Office, *Re: Period of Availability of Appropriated Funds* (Washington, D.C.: May 21, 2018).

⁵An unobligated balance is the portion of obligational authority that has not yet been obligated, that is, committed to create a legal liability of the government for the payment of goods and services ordered or received, or a legal duty that could mature into a legal liability by virtue of actions beyond the control of the United States. For a no-year account, the unobligated balance is carried forward indefinitely, unless specific congressional or executive action is taken. [GAO-05-734SP](#).

⁶An unexpended balance is generally defined as the sum of obligated and unobligated balances (net of expenditures). However, when DOE reports uncosted balances, these balances only reflect obligated balances net of expenditures. DOE separately reports unobligated balances. Despite this definitional difference, the terms "uncosted" and "unexpended" are often used interchangeably by DOE and NNSA. According to DOE Manual 135.1-1A, an "unexpended (uncosted) balance" is defined as budget authority obligated but not costed representing a portion of contract obligations for goods and services that have not yet been received. The DOE manual further states that unexpended obligations are part of doing business and play a key role in budget formulation and execution cycles supporting continuity of operations at the beginning of the year. For the purpose of this report, we refer to "uncosted" balances to preserve the difference in definitions.

⁷GAO, *DOE Management: DOE Needs to Improve Its Analysis of Carryover Balances*, [GAO/RCED-96-57](#) (Washington, D.C.: Apr. 12, 1996).

⁸Operating activities generally involve expenses for items, such as employees' salaries, that do not meet the monetary and service life criteria for capitalization (i.e., a service life of 2 years or more and a cost equal to or greater than \$5,000) normally associated with construction projects and purchases of capital equipment.

⁹These reviews have also identified unobligated balances and significant uncosted balances for line-item construction projects, for which DOE did not establish thresholds. When we provide this type of technical assistance to Congress, the work is considered a routine nonaudit service and does not result in a publicly available product. However, the work is conducted in accordance with all relevant sections of GAO's Quality Assurance Framework, and DOE does have the opportunity to review the factual accuracy of the information we provide and to suggest technical corrections.

Congress identify balances in excess of thresholds and for which DOE officials provided insufficient justification. In some cases, identifying and reporting these balances to Congress has resulted in rescissions or a reduction in funding for certain EM and NNSA programs. During the fiscal year 2021 appropriations process, Members of Congress expressed concerns about whether EM and NNSA were factoring in carryover balances when formulating their budgets in light of high totals of reported carryover balances concurrent with the President's request for significant increases to appropriations.¹⁰

Over the years, Congress has required DOE to publicly report on carryover balance information and has shown consistent interest in understanding how DOE identifies and monitors balances. Most recently, a provision in the National Defense Authorization Act for Fiscal Year 2021 contained language intended to improve reporting on financial balances.¹¹

A committee report accompanying the Senate bill for the National Defense Authorization Act for Fiscal Year 2021 included a provision for us to review EM's and NNSA's management of carryover balances.¹² This correspondence examines five related areas: (1) EM's and NNSA's budget structure and budget execution process; (2) amounts and ages of EM and NNSA carryover balances at the end of fiscal year 2021; (3) EM and NNSA practices for identifying uncosted balances that warrant greater scrutiny and the amounts of these balances at the end of fiscal year 2021; (4) drivers of EM and NNSA excess uncosted balances and actions they take to manage these balances; and (5) limitations to the thresholds and guidance that EM and NNSA use to manage excess uncosted balances.

To address all five areas, we examined applicable documents, analyzed data, compared DOE practices to those used at other agencies, interviewed relevant DOE and NNSA officials, and reviewed relevant criteria. To describe EM's and NNSA's budget structure and budget execution process, we reviewed congressional appropriations acts and associated committee direction that structured the programs, projects, and activities (PPA) for fiscal year 2021.¹³ We also reviewed related DOE and NNSA budget execution guidance and financial management requirements.

To identify the amounts and ages of EM and NNSA carryover balances at the end of fiscal year 2021, we obtained and analyzed financial data as of the end of fiscal year 2021 for activities within EM's appropriation accounts and for NNSA's Weapons Activities and Defense Nuclear

¹⁰*Matters Relating to the Budget of the National Nuclear Security Administration, Before the Senate Committee on Armed Services*, 116th Cong. 20-37 (2020) (transcript from hearing). For a discussion of the requested increase for NNSA, see GAO, *National Nuclear Security Administration: Information on the Fiscal Year 2021 Budget Request and Affordability of Nuclear Modernization Activities*, [GAO-20-573R](#) (Washington, D.C.: July 30, 2020).

¹¹Among other things, DOE is required to report on the total balance of uncosted funds, the threshold for the balance of uncosted funds, the amount of any uncosted balance that is over or under threshold, and for balances over threshold, an explanation for why the balance is over that threshold. Pub. L. No. 116-283, Div. C, tit. XXXI, § 3151(a), 134 Stat. 3388, 4389 (codified at 50 U.S.C. § 2772).

¹²S. Rep. No. 116-236, at 414-15 (2020).

¹³A PPA is an element within a budget account. For annually appropriated accounts, the Office of Management and Budget (OMB) and agencies identify a PPA by reference to congressional committee reports and budget justifications. For permanent appropriations, OMB and agencies identify a PPA by the program and financing schedules that the President provides in the "Detailed Budget Estimates" in the budget submission for the relevant fiscal year. Program activity structures are intended to provide a meaningful representation of the operations financed by a specific budget account—usually by project, activity, or organization. [GAO-05-734SP](#).

Nonproliferation (DNN) appropriation accounts.¹⁴ These accounts represent the two largest appropriation accounts within NNSA's appropriations that were relevant to our review. We also reviewed documents detailing the practices that EM and NNSA use for identifying uncosted balances that warrant greater scrutiny. We analyzed those balances warranting greater scrutiny. To determine the reliability of these data, we performed electronic testing of the data to ensure completeness and accuracy and interviewed cognizant officials. We determined that the data were sufficiently reliable for the purposes of reporting on EM's and NNSA's total carryover balances.

To identify drivers of EM and NNSA excess uncosted balances and the actions they take to manage these balances, we interviewed DOE and NNSA budget officials about the causes and justifications for carryover balances of PPAs within EM's and NNSA's Weapons Activities and DNN appropriation accounts. We also compared the practices that EM and NNSA use to those used by other relevant federal agencies. To carry out this analysis, we identified relevant agencies using the following criteria: agency size, amount of "no-year" funding received, and the extent to which the agency conducted work or activities similar to EM and NNSA. Using the criteria and with consideration of time and resource constraints, we selected three agencies—the Departments of Defense (DOD), Homeland Security (DHS), and State—and interviewed agency officials to learn about the practices these agencies used to manage their respective carryover balances. Findings from this report cannot be generalized to other agencies we did not select and review.

To identify limitations to the thresholds and guidance that EM and NNSA use to manage excess uncosted balances, we reviewed documentation detailing DOE's and NNSA's approach for using the thresholds. We also examined guidance that EM and NNSA use to manage these balances and interviewed relevant officials. For a more detailed discussion on our scope and methodology, see enclosure I.

We conducted this performance audit from September 2020 to July 2022 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.

EM's and NNSA's Budget Structure and Budget Execution Process

What were the budget structures and authorities for selected EM and NNSA appropriations for fiscal year 2021?

EM's budget structure for fiscal year 2021 included three appropriation accounts: (1) Defense Environmental Cleanup, (2) Non-Defense Environmental Cleanup, and (3) Uranium Enrichment

¹⁴NNSA's Weapons Activities appropriation account supports, among other things, the nation's current and future defense posture and necessary nationwide infrastructure of science, technology, and engineering capabilities without conducting underground testing. The Defense Nuclear Nonproliferation appropriation account supports activities focused on preventing adversaries from acquiring nuclear weapons or weapons-usable materials, technology, and expertise; countering efforts to acquire such weapons or materials; and responding to nuclear or radiological accidents and incidents domestically and abroad. NNSA receives two other appropriations that we did not include in our scope. We did not include NNSA's Federal Salaries and Expenses and Naval Reactors accounts as part of this analysis because NNSA has only 2-year funding authority for the Federal Salaries and Expenses account and because activities conducted with funds from the Naval Reactors account are carried out jointly with the Navy.

Decontamination and Decommissioning Fund.¹⁵ Within these three appropriation accounts, EM managed 53 programs, projects, and activities (PPA).¹⁶ EM received approximately \$7.6 billion in new budget authority, the vast majority of which was no-year funding.¹⁷

NNSA's budget structure for fiscal year 2021 included four appropriation accounts: (1) Weapons Activities, (2) Defense Nuclear Nonproliferation (DNN), (3) Naval Reactors, and (4) Federal Salaries and Expenses. As the focus of our review, we selected the two largest appropriation accounts: Weapons Activities and DNN.¹⁸ Within these two accounts, NNSA managed 85 PPAs.¹⁹ NNSA received approximately \$17.6 billion in new budget authority for the Weapons Activities and DNN accounts, the vast majority of which was no-year funding.²⁰

Enclosure II presents the PPAs from EM's three appropriation accounts and NNSA's Weapons Activities and DNN appropriation accounts for fiscal year 2021.

What are the steps in EM's and NNSA's processes for executing appropriated funds consistent with congressional direction for each PPA?

EM and NNSA take a series of steps, in concert with Congress, the Office of Management and Budget (OMB), and DOE to execute appropriated funds consistent with congressional direction for each PPA. DOE and NNSA directives outline the steps that EM and NNSA are to take, and we summarize this process below:²¹

¹⁵Work performed under EM's Defense Environmental Cleanup appropriation account focuses on cleanup efforts at multiple defense nuclear facilities at sites across the country. Work performed under the Non-Defense Environmental Cleanup appropriation account focuses on cleanup efforts at facilities not involved in work done for defense purposes, such as government-sponsored nuclear energy research. The Uranium Enrichment Decontamination and Decommissioning Fund focuses on completing cleanup at DOE's three former uranium enrichment sites near Oak Ridge, Tennessee; Paducah, Kentucky; and Portsmouth, Ohio.

¹⁶The 53 EM PPAs are those included in EM's fiscal year 2021 budget structure, which is detailed in the explanatory statement for the Energy and Water Development and Related Agencies Appropriations Act, 2021, which was enacted as Division D of the Consolidated Appropriations Act, 2021.

¹⁷EM's Defense Environmental Cleanup Program Direction receives some 2-year funding that provides for salaries and expenses to support the federal workforce responsible for the overall direction and administrative support of EM, including headquarters and field personnel. In fiscal year 2021, the Defense Environmental Cleanup Program Direction activity received about \$289 million in new budget authority.

¹⁸We did not include NNSA's Federal Salaries and Expenses and Naval Reactors accounts as part of this analysis because NNSA has only 2-year funding authority for the Federal Salaries and Expenses account and because activities conducted with funds from the Naval Reactors account are carried out jointly with the Navy.

¹⁹The 85 NNSA PPAs are those included in the fiscal year 2021 budget structure for NNSA's Weapons Activities and DNN appropriation accounts, which is detailed in the explanatory statement for the Energy and Water Development and Related Agencies Appropriations Act, 2021, which was enacted as Division D of the Consolidated Appropriations Act, 2021.

²⁰NNSA's Secure Transportation Asset Program Direction, a PPA within the Weapons Activities appropriation account, receives 2-year funding that provides for salaries, travel, and other related expenses in support of federal agents and the secure transportation workforce. In fiscal year 2021, the Secure Transportation Asset Program Direction activity received about \$123.7 million in new budget authority.

²¹In particular, see Department of Energy, *Budget Planning, Formulation, Execution, and Departmental Performance Management*, Order 130.1A (Washington, D.C.: Jan. 7, 2021); and National Nuclear Security Administration, *Planning, Programming, Budgeting, and Evaluation (PPBE) Process*, NAP 130.1B (Washington, D.C.: May 25, 2021).

- 1) **Appropriate and apportion:** Congress appropriates funds to DOE through annual appropriations acts and continuing resolutions. During the fiscal year, OMB apportions the funding amounts available to DOE for obligation.²²
- 2) **Allot:** DOE allots apportioned funding directly to each departmental element, such as EM and NNSA, on the basis of approved financial plans for each program.²³ These plans, developed by EM and NNSA in conjunction with DOE's Office of the Chief Financial Officer, provide direction on the amount of funding to be allotted to the departmental element and the timing of those allotments during the fiscal year.
- 3) **Obligate:** EM and NNSA can obligate allotted funds to conduct activities consistent with the purposes described in their appropriations and consistent with congressional direction. For example, EM and NNSA may obligate funds through an order for delivery of goods or services or commit funds to a contract under which a contractor may order goods or services. However, allotments are not always fully obligated. For example, funding may not be obligated if an activity cannot yet proceed because, for example, it is awaiting completion of an environmental review, or there is a delay in making a contract award. These unobligated balances can accumulate from one fiscal year to the next when the associated appropriation account is provided multiyear or no-year budget authority.
- 4) **Expend or cost:** As EM, NNSA, and their contractors receive goods and services, they liquidate or "cost" their obligations. When performed by EM and NNSA, this liquidation is referred to as "expending." When performed by contractors, it is referred to as "costing."²⁴ However, not all the obligations are expended or costed during a given year; such unexpended or uncosted obligations can accumulate from one fiscal year to the next.

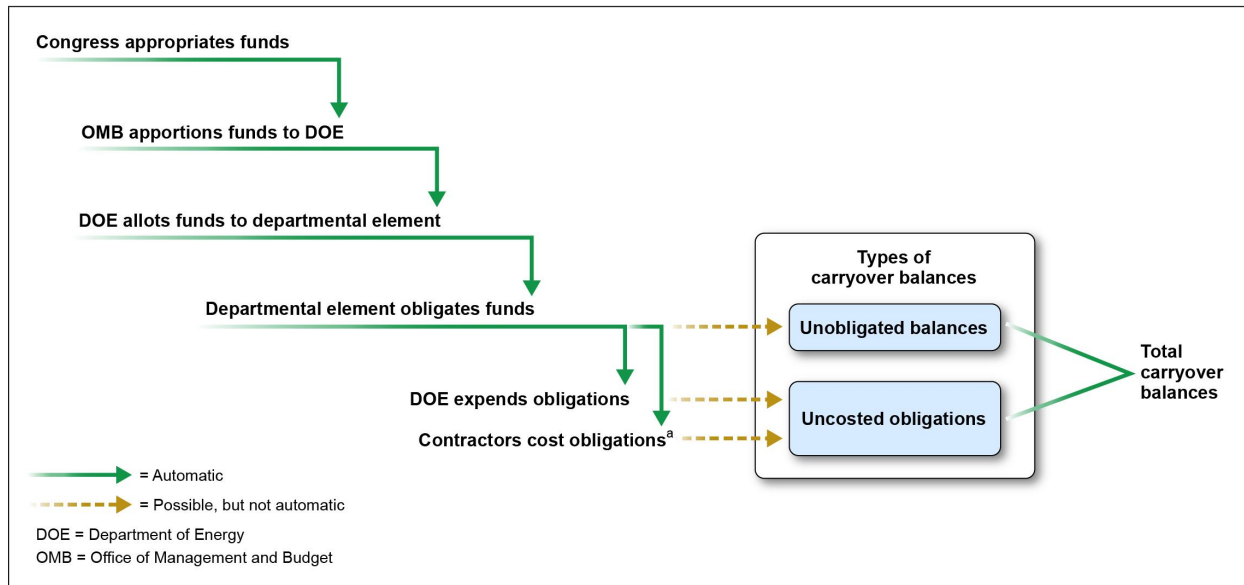
Figure 1 depicts the steps in DOE's funding execution process and opportunities for carryover balances to accumulate.

²²OMB provides guidance for federal agencies to use when preparing and executing a budget. See Executive Office of the President, Office of Management and Budget, *Circular No. A-11: Preparation, Submission, and Execution of the Budget* (Washington, D.C.: Aug. 6, 2021).

²³A departmental element is defined as a first-tier organization at DOE headquarters and in the field. In addition to EM and NNSA, departmental elements include a variety of other offices, such as the Offices of Fossil Energy and Carbon Management, Legacy Management, and Science.

²⁴For the purposes of this report, we are combining federal and contractor liquidation under the term "costing" because the vast majority of EM's and NNSA's obligations are ultimately liquidated by contractors.

Figure 1: DOE's Funding Execution Process



Source: GAO analysis of DOE information. | GAO-22-104541

^aAs DOE's Office of Environmental Management (EM), the National Nuclear Security Administration (NNSA), and their contractors receive goods and services, they liquidate their obligations. When performed by EM and NNSA, this liquidation is referred to as "expending." When performed by contractors, this liquidation is referred to as "costing."

How do uncertainties surrounding the timing of the appropriations process affect DOE's ability to execute its funds?

We have previously reported that while continuing resolutions provide funding that allows agencies to continue operations until agreement is reached on their final appropriations, they also create uncertainty for agencies.²⁵ This uncertainty arises because when a federal agency operates under a continuing resolution, officials do not know how much funding will be available in the new fiscal year. This presents challenges for federal agencies such as DOE that may be planning to initiate new construction projects at the start of a new fiscal year or to increase programmatic activity in the new fiscal year, such as a new weapon modernization program.²⁶ These programs and projects require officials to coordinate activities and associated funding across multiple DOE sites and M&O contractors.²⁷

In 2009, we reported that challenges caused by continuing resolutions continued even after the agencies we reviewed received their full-year appropriations.²⁸ In general, we found that longer continuing resolutions can make it more difficult for agencies to implement unexpected changes

²⁵GAO, *Budget Issues: Budget Uncertainty and Disruptions Affect Timing of Agency Spending*, [GAO-17-807T](#) (Washington, D.C.: Sept. 20, 2017).

²⁶NNSA undertakes weapon modernization programs to refurbish or replace nuclear weapons' components to extend their lives, enhance their safety and security characteristics, and consolidate the stockpile into fewer weapon types to minimize maintenance and testing costs while preserving needed military capabilities.

²⁷Amounts appropriated under a continuing resolution are not available to initiate or resume projects or activities for which appropriations, funds, or authority were not available during the prior fiscal year.

²⁸GAO, *Continuing Resolutions: Uncertainty Limited Management Options and Increased Workload in Selected Agencies*, [GAO-09-879](#) (Washington, D.C.: Sept. 24, 2009).

in their regular appropriations because they have a limited time to do so. However, we also found that multiyear funding tended to mitigate the difficulties associated with continuing resolutions at the agencies we reviewed because these agencies had less pressure to obligate funds before the end of the fiscal year. More recently, in our 2021 report on DOD's experiences with continuing resolutions, department officials told us that incremental planning for operating under a continuing resolution—creating spending plans for various continuing resolution scenarios and adjusting contracts to reflect available funding during a continuing resolution—was not effective or efficient but had become routine.²⁹

We analyzed appropriations spanning from fiscal years 1990 through 2021 and found that one or more continuing resolutions were enacted for DOE in 26 of these 32 fiscal years. Moreover, we found that in each fiscal year beginning in fiscal year 2000, an average of at least three (but as many as eight) continuing resolutions affecting the certainty of DOE funding were signed into law for each fiscal year.³⁰

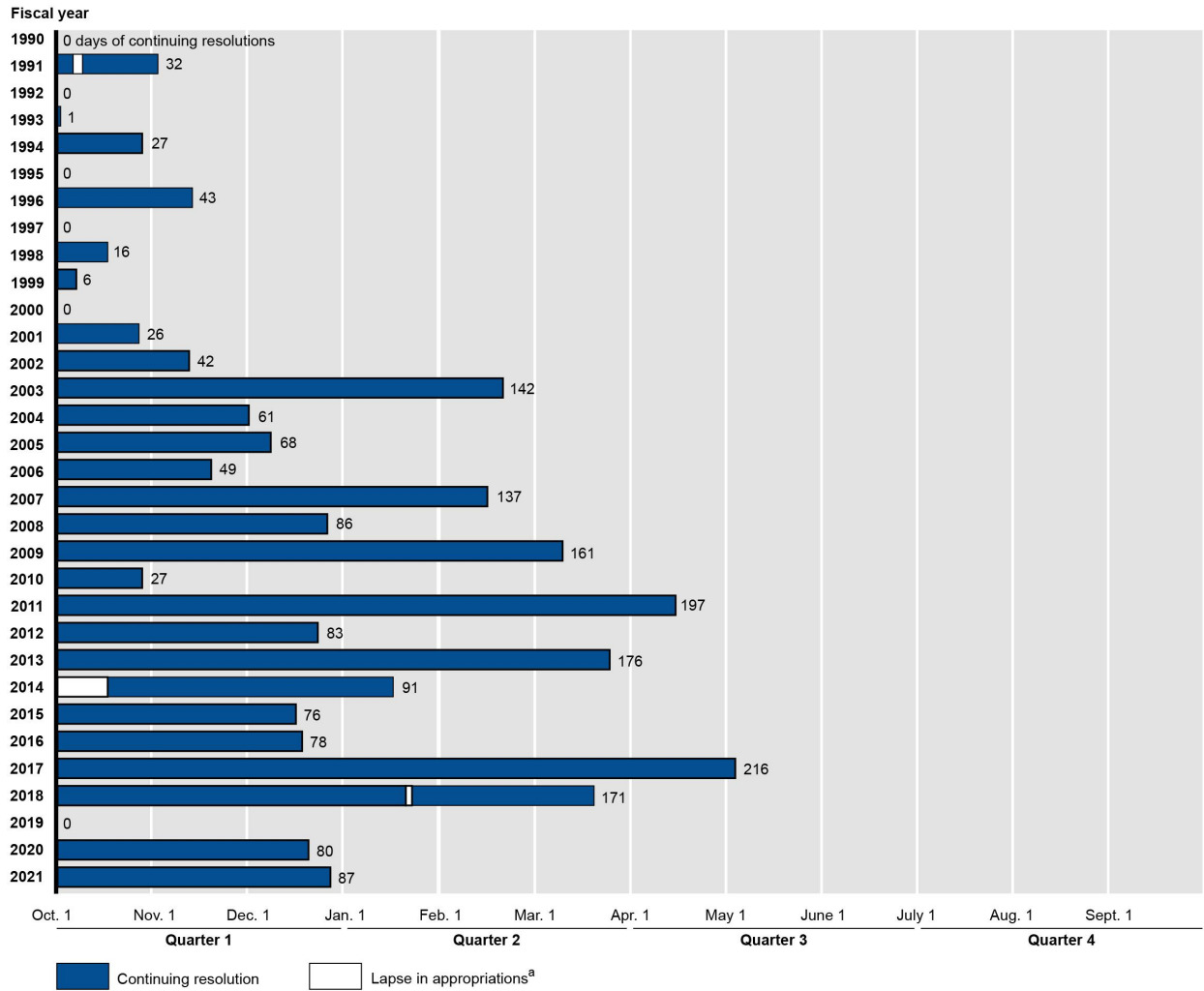
Our analysis also shows that the duration of continuing resolutions increased substantially after fiscal year 2000. Specifically, we found that DOE operated under a continuing resolution affecting the certainty of its funding for an average of 93 days each fiscal year, beginning in 2000.³¹ Figure 2 presents information on the duration of continuing resolutions that affected DOE in fiscal years 1990 through 2021.

²⁹GAO, *Defense Budget: DOD Has Adopted Practices to Manage Within the Constraints of Continuing Resolutions*, [GAO-21-541](#) (Washington, D.C.: Sept. 13, 2021).

³⁰By “continuing resolutions affecting the certainty of DOE funding” we mean those continuing resolutions that did not run through the end of the fiscal year, because once DOE received a continuing resolution running through the end of a fiscal year, it no longer had uncertainty about its funding for that fiscal year. For example, in 2007, DOE operated under four continuing resolutions. We counted three as affecting the certainty of DOE funding for that fiscal year because the fourth continuing resolution ran through the end of the fiscal year, and so DOE knew what its funding was for that fiscal year as soon as the fourth continuing resolution was enacted.

³¹DOE operated under a continuing resolution for the entirety of fiscal years 2007, 2011, and 2013.

Figure 2: Duration of Continuing Resolutions Affecting Certainty of DOE Annual Funding, Fiscal Year 1990 through Fiscal Year 2021



Source: GAO analysis of the Department of Energy's (DOE) continuing resolutions passed from fiscal year 1990 through fiscal year 2021. | GAO-22-104541

Accessible Data for Figure 2: Duration of Continuing Resolutions Affecting Certainty of DOE Annual Funding, Fiscal Year 1990 through Fiscal Year 2021

Fiscal year	Total Days operating in a Continuing Resolution	Date of Final Appropriations Enactment	Notes
1990	0	9/29/1989	
1991	32	11/5/1990	Please reflect a 3 day funding gap between 10/5/1990 and 10/9/1990
1992	0	8/17/1991	
1993	1	10/2/1992	
1994	27	10/28/1993	
1995	0	8/26/1994	
1996	43	11/13/1995	
1997	0	9/30/1996	

Fiscal year	Total Days operating in a Continuing Resolution	Date of Final Appropriations Enactment	Notes
1998	16	10/17/1997	
1999	6	10/7/1998	
2000	0	9/29/1999	
2001	26	10/27/2000	
2002	42	11/12/2001	
2003	142	2/20/2003	
2004	61	12/1/2003	
2005	68	12/8/2004	
2006	49	11/19/2005	
2007	137	2/14/2007	
2008	86	12/26/2007	
2009	161	3/11/2009	
2010	27	10/28/2009	
2011	197	4/14/2011	
2012	83	12/23/2011	
2013	176	3/25/2013	
2014	91	1/17/2014	Reflect a lapse in appropriations between October 1, 2013 through October 16, 2013.
2015	76	12/16/2014	
2016	78	12/18/2015	
2017	216	5/5/2017	
2018	171	3/23/2018	Please reflect a lapse in appropriations between January 20, 2018 through January 21, 2018.
2019	0	9/21/2018	No continuing resolutions in fiscal year 2019.
2020	80	12/20/2019	
2021	87	12/27/2020	

Note: This table reflects the number of days in each fiscal year that DOE spent under a continuing resolution that did not run through the end of the fiscal year. For example, in fiscal year 2007, DOE operated under four continuing resolutions. We counted the days under the first three. We did this because the fourth continuing resolution ran through the end of the fiscal year, and once that fourth continuing resolution was enacted, DOE no longer had any uncertainty about its budget for the fiscal year.

^aA lapse in appropriations can occur when appropriations are not enacted, and this limits an agency's ability to continue operations during this period.

According to DOE officials, operating under a continuing resolution can have two effects on EM's and NNSA's processes for executing appropriated funds consistent with congressional direction for PPAs:

- Compressed time frames.** After a continuing resolution ends, agencies may face a compressed time frame to obligate and cost funds from the final appropriations. Specifically, DOE guidance directs EM and NNSA officials to spend at a conservative rate when operating under a continuing resolution, in order to hedge against a scenario

in which the amount of funding appropriated is less than that appropriated for the prior fiscal year (i.e., the amount appropriated under the continuing resolution adjusted to reflect the period covered by the continuing resolution). However, after final appropriations decisions are made, agencies face a compressed time frame to obligate and cost funds. This can make it difficult for officials to obligate all newly appropriated funds by the end of the fiscal year and cost them at a faster rate than under the continuing resolution, particularly if the amount of the final appropriation increases from what was funded for the prior year. According to officials, this may result in new or increased carryover balances.

- **Delays in starting new programs and projects.** Statutory requirements prevent federal agencies from starting a new program or project during a continuing resolution, as agency officials acknowledged to us. Such requirements can affect program planning and, according to DOE officials, can have an impact on the timeliness of obligations and expenditures well after a full-year appropriation has passed, and which may also lead to new or increased carryover balances.

Amounts and Ages of EM and NNSA Carryover Balances at the End of Fiscal Year 2021

How do EM and NNSA identify carryover balances?

EM and NNSA identify carryover balances, both unobligated and uncosted, through general financial management practices and as part of DOE's overall budget execution and formulation activities. In particular, EM and NNSA staff identify unobligated balances for specific PPAs by reviewing financial information that, according to DOE officials, is reported in DOE's official financial management system, the Standard Accounting and Reporting System, which they said regularly interfaces with other DOE systems such as the Funds Distribution System.³² Staff from DOE's Office of the Chief Financial Officer also use the Funds Distribution System to identify and maintain unobligated balances held in reserves. For example, a PPA may have a preplanned amount of new budget authority held in reserve so that the funds can be carried over into the next fiscal year and be available for immediate use.

In addition, as part of the department's annual budget execution and formulation activities, DOE elements such as EM and NNSA respond to a departmental call to estimate their unobligated balances. This usually takes place a few months before the end of the fiscal year. DOE uses this information to inform its initial apportionment request to OMB for estimated unobligated carryover, new budget authority, or both. More specifically, according to DOE's financial management handbook, unobligated balances from accounts in which the balances remain available for incurring new obligations must be reapportioned by OMB, and reallocated by the Office of the Chief Financial Officer, before unobligated balances can become available for obligation by DOE elements in the following fiscal year. While EM and NNSA may retain their unobligated balances from year to year for unexpired accounts, EM and NNSA must receive OMB's apportionment approval for obligation at the start of each new fiscal year, in accordance with OMB Circular No. A-11.

³²DOE's Funds Distribution System is an unclassified, centralized, online, interactive database and report retrieval budget execution system that provides for the receipt, control, and distribution of all obligational authority available to DOE. This system is the means by which officials within DOE (allottees) are delegated the authority to incur obligations within a specific amount pursuant to OMB apportionment or reapportionment action or other statutory authority making funds available for obligation.

EM and NNSA identify uncosted balances in similar ways. For example, EM and NNSA staff also use the Standard Accounting and Reporting System and other departmental systems to identify uncosted balances for specific PPAs. Furthermore, according to DOE's financial management handbook, as part of the department's internal effort to review and report on obligations, departmental elements such as EM and NNSA periodically project, analyze, and report uncosted balances. For example, EM and NNSA staff identify uncosted balances when executing their budgets throughout the fiscal year and as part of their standard fiscal year-end accounting reviews.

As noted above, DOE's financial management system allows for EM and NNSA staff to identify unobligated and uncosted balances at the PPA level. The system also provides visibility below the PPA level, including the year that the funds comprising the balances were appropriated and, for uncosted balances, the entity to which the funds were obligated and that has not yet costed the funds. In order to identify and report on carryover balances at the appropriation account level, EM and NNSA staff combine the balances for each PPA within an appropriation account.

Why is it important to understand the age of EM's and NNSA's carryover balances?

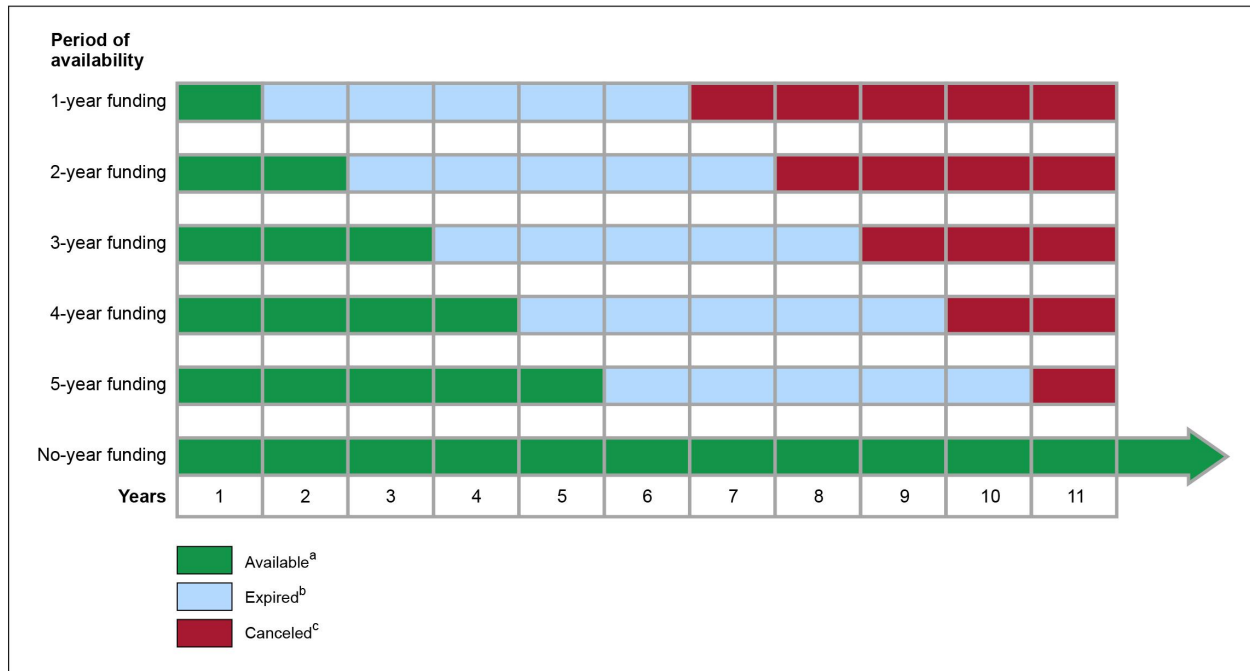
Assessing the age of EM's and NNSA's carryover balances can be an important tool in helping to ensure that funds are being efficiently executed. As previously described, because most funds appropriated to EM and NNSA are no-year funds, both agencies' appropriation accounts—and the PPAs within those accounts—may have, or be expected to have, unobligated and uncosted balances that carry over from one fiscal year to the next. EM and NNSA can continue to obligate and cost these balances indefinitely, resulting in carryover.

This contrasts with appropriations that have a fixed period of availability, typically 1 to 5 years.³³ During this fixed period, the funds are available for obligation and expenditure. When the fixed period ends, the funds expire. Expired funds can be used for an additional 5 years to liquidate or make certain adjustments to obligations incurred during the period of availability. These funds are canceled 5 years after they expire and are no longer available for any purpose.³⁴ Evaluating no-year funds as if they were 1-year funds, by assessing the extent to which funds are costed within 5 fiscal years of their appropriation, can be beneficial. Such analysis can indicate problems executing the funds or that the purpose for which the funds were initially appropriated has been met. Figure 3 illustrates the available, expired, and canceled years for different fixed-period and no-year appropriations.

³³GAO, *Principles of Federal Appropriations Law*, 4th ed., 2016 rev., ch. 2, [GAO-16-464SP](#) (Washington, D.C.: March 2016), and *Principles of Federal Appropriations Law*, 3rd ed., vol. I, [GAO-04-261SP](#) (Washington, D.C.: January 2004).

³⁴For more information about canceled appropriations, see GAO, *Federal Budget: A Few Agencies and Program-Specific Factors Explain Most Unused Funds*, [GAO-21-432](#) (Washington, D.C.: May 25, 2021).

Figure 3: Funds Life-Cycle Phases Showing Periods during Which Funds Are Available, Expired, and Canceled for Different Fixed-Period and No-Year Appropriations



Sources: GAO analysis of GAO, *Principles of Federal Appropriations Law*, 3rd ed., vol. I, GAO-04-261SP (Jan. 2004); and Defense Contract Management Agency Manual 2501-03, *Funds Life Cycle* (Apr. 3, 2019). | GAO-22-104541

^a“Available” means that funds can be obligated during this period.

^b“Expired” means that the funds can only be used to liquidate or make certain adjustments to obligations incurred during the period of availability.

^c“Canceled” means that the funds are no longer available for any purpose.

What were EM’s and NNSA’s total carryover balances at the end of fiscal year 2021, and how have these balances changed over the past five fiscal years?

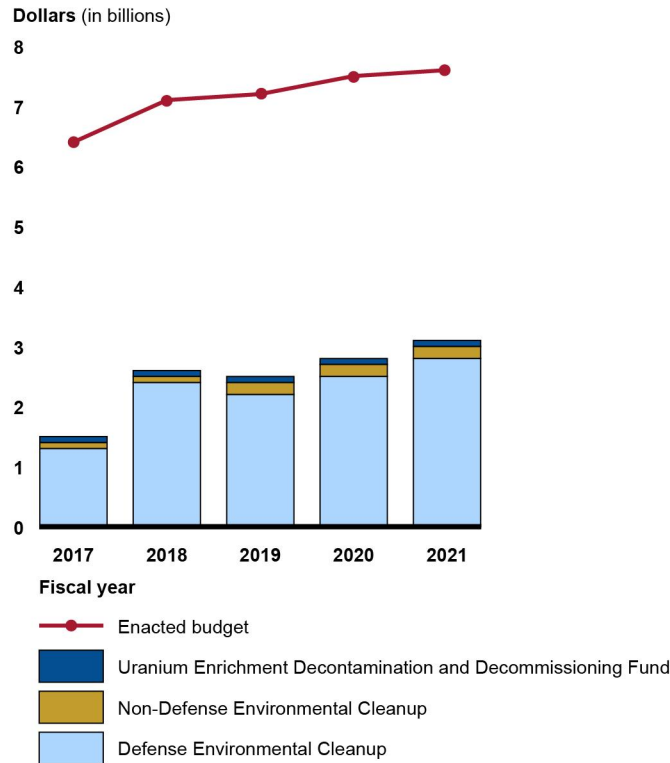
EM and NNSA carried over about \$14.1 billion at the end of fiscal year 2021. In particular, EM’s carryover balance totaled about \$3.2 billion, equivalent to about 42 percent of the funds appropriated to EM for fiscal year 2021. The carryover balance for NNSA’s Weapons Activities and DNN appropriation accounts was about \$10.9 billion, equivalent to about 62 percent of the funds appropriated to these accounts for fiscal year 2021.³⁵

According to our analysis of EM and NNSA data, we found that EM’s and NNSA’s total carryover balances have increased over 4 of the past 5 fiscal years, the exception being fiscal year 2019, when EM’s total carryover balance decreased slightly. Specifically, we found that over the past 5 fiscal years, EM’s lowest total carryover balance was about \$1.5 billion, in fiscal year 2017; its highest balance was about \$3.2 billion, in fiscal year 2021. During this period, EM also received increased funding, with its enacted budget increasing by about 19 percent during that period, from about \$6.4 billion in fiscal year 2017 to about \$7.6 billion in fiscal year 2021.

³⁵As previously discussed, for the purposes of our report, when discussing NNSA’s carryover funding amounts as of the end of fiscal year 2021, we are referring to NNSA’s Weapons Activities and DNN appropriation accounts. We do not include the Naval Reactors or Federal Salaries and Expenses appropriation accounts in our analysis.

Figure 4 provides additional details about EM's total carryover balances and enacted budgets for fiscal years 2017 through 2021.

Figure 4: EM Carryover Balances at Fiscal Year-End by Appropriation Account and Enacted Budget, Fiscal Years 2017 through 2021



Source: GAO analysis of Department of Energy, Office of Environmental Management (EM) fiscal year-end data for fiscal years 2017 through 2021. | GAO-22-104541

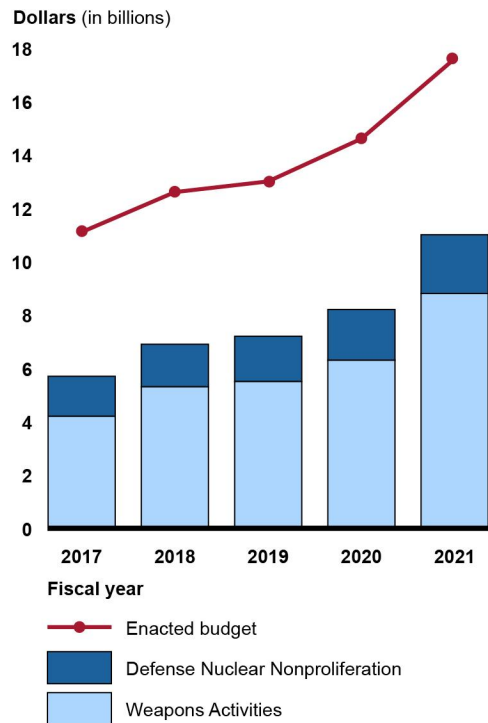
Accessible Data for Figure 4: EM Carryover Balances at Fiscal Year-End by Appropriation Account and Enacted Budget, Fiscal Years 2017 through 2021

Fiscal year	Defense Environmental Cleanup (dollars in billions)	Non-Defense Environmental Cleanup (dollars in billions)	Uranium Enrichment Decontamination and Decommissioning Fund (dollars in billions)
2017	1.3	0.1	0.1
2018	2.4	0.1	0.1
2019	2.2	0.2	0.1
2020	2.5	0.2	0.1
2021	2.8	0.2	0.1

Fiscal year	EM enacted budget (dollars in billions)
2017	6.4
2018	7.1
2019	7.2
2020	7.5
2021	7.6

Similarly, NNSA’s total carryover balances for its Weapons Activities and DNN appropriation accounts increased in each fiscal year during this 5-year period, from about \$5.7 billion in fiscal year 2017 to about \$10.9 billion in fiscal year 2021. During this period, NNSA also received increased funding, with its enacted budget increasing by about 59 percent for these accounts, from about \$11.1 billion in fiscal year 2017 to about \$17.6 billion in fiscal year 2021. Figure 5 provides additional details about NNSA’s total carryover balances and enacted budgets for these accounts for fiscal years 2017 through 2021.

Figure 5: NNSA Carryover Balances at Fiscal Year-End by Appropriation Account and Enacted Budget, Fiscal Years 2017 through 2021



Source: GAO analysis of National Nuclear Security Administration (NNSA) fiscal year-end data for the Weapons Activities and Defense Nuclear Nonproliferation appropriation accounts for fiscal years 2017 through 2021. | GAO-22-104541

Accessible Data for Figure 5: NNSA Carryover Balances at Fiscal Year-End by Appropriation Account and Enacted Budget, Fiscal Years 2017 through 2021

Fiscal year	Weapons Activities (dollars in billions)	Defense Nuclear Nonproliferation (dollars in billions)
2017	4.2	1.5
2018	5.3	1.6
2019	5.5	1.7
2020	6.3	1.9
2021	8.8	2.2

Fiscal year	NNSA enacted budget (dollars in billions)
2017	11.1
2018	12.6
2019	13.0
2020	14.6
2021	17.6

What were EM’s and NNSA’s unobligated balances at the end of fiscal year 2021, and to what extent were these balances comprised of funds appropriated more than 5 years ago?

At the end of fiscal year 2021, EM and NNSA had unobligated balances of about \$559.4 million and \$1.3 billion, respectively, for a total of about \$1.9 billion at the end of fiscal year 2021. About \$34 million (or about 1.8 percent) of these balances were comprised of funds appropriated more than 5 years ago, with our analysis showing that the majority of EM’s and NNSA’s unobligated balances were from recent fiscal years and were often preplanned, such as to support specific multiyear construction activities. Specific to NNSA, we also found that a significant amount of the DNN appropriation account’s unobligated balance related to the Mixed Oxide Fuel Fabrication Facility, which has been terminated. NNSA has proposed this balance for cancellation.³⁶

As table 1 shows, the majority of EM’s unobligated balance came from the Defense Environmental Cleanup appropriation account.

³⁶The Mixed Oxide Fuel Fabrication Facility, which was being constructed at the Savannah River Site in South Carolina, was to play a key role in NNSA’s strategy to dispose of large quantities of weapons-grade plutonium deemed no longer required for national security. However, the project experienced significant cost increases and schedule delays and was terminated in October 2018. NNSA’s May 2021 justification of the President’s budget for fiscal year 2022 proposed permanently canceling \$330 million in prior-year funds for the construction of this facility.

Table 1: EM Unobligated Balances by Appropriation Account, as of September 2021

EM appropriation	Unobligated balance, as of September 2021 (dollars in millions)
Defense Environmental Cleanup	547.7
Non-Defense Environmental Cleanup	2.0
Uranium Enrichment Decontamination and Decommissioning Fund	9.7
Total	559.4

Source: GAO analysis of Department of Energy (DOE) Office of Environmental Management (EM) data from DOE's September 2021 base financial report. | GAO-22-104541

About \$298.2 million (or about 53 percent) of EM's total unobligated balance was appropriated in fiscal year 2021 (see table 2). We analyzed these balances and found that they included about \$34.6 million in 2-year funding for Defense Environmental Cleanup Program Direction. The remaining \$263.6 million was no-year funding, of which about \$163 million (or about 62 percent) was preplanned carryover held in reserve for five line-item construction projects.³⁷ Our analysis also shows that about \$22.7 million of EM's prior-year unobligated balances was appropriated from fiscal year 2005 through fiscal year 2016.³⁸ This funding remains available because it was no-year funding. By comparison, single-year funding appropriated during this period would no longer be available.

Table 2: EM Unobligated Balances by Appropriation Account and Appropriation Year, as of September 2021 (dollars in millions)

EM appropriation	2005 - 2016	2017	2018	2019	2020	2021	Unobligated balance, as of September 2021
Defense Environmental Cleanup	12.5	0.6	82.0	35.8	119.5	297.3 ^a	547.7
Non-Defense Environmental Cleanup	0.6	0.0	0.0	0.3	0.3	0.9	2.0
Uranium Enrichment Decontamination and Decommissioning Fund	9.6	0.0	0.0	0.0	0.0	0.0	9.7
Total	22.7	0.6	82.0	36.1	119.8	298.2	559.4

Source: GAO analysis of Department of Energy (DOE) Office of Environmental Management (EM) data from DOE's September 2021 base financial report. | GAO-22-104541

Note: Totals may not match because of rounding.

^aThis total includes \$34.6 million in 2-year funding for EM's Defense Environmental Cleanup Program Direction that will expire at the end of fiscal year 2022. The remaining \$262.7 million is no-year funding.

³⁷The five line-item construction projects included the (1) Waste Treatment and Immobilization Plant LBL/Direct Feed Low-Activity Waste Facility at DOE's Hanford Site in Washington; (2) Advanced Manufacturing Collaborative Facility at DOE's Savannah River Site in South Carolina; (3) On-Site Waste Disposal Facility at DOE's Oak Ridge Site in Tennessee; (4) Hoisting Capability project at the Waste Isolation Pilot Plant in New Mexico; and (5) Outfall 200 Mercury Treatment Facility, also at DOE's Oak Ridge Site.

³⁸About \$10.6 million of the \$22.7 million unobligated balance was appropriated in fiscal year 2016 for Central Plateau Remediation activities at the Hanford Site. An additional \$8.5 million was appropriated in fiscal year 2015 for the On-Site Waste Disposal Facility at DOE's Paducah Site, home to the Paducah Gaseous Diffusion Plant. According to DOE documents, OMB placed these funds in reserve because the prospective need for this facility to support waste disposition activities was deferred beyond the current 10-year window of the site's cleanup strategy.

The majority of NNSA's unobligated balance of about \$1.3 billion came from the Weapons Activities appropriation account (see table 3).

Table 3: NNSA Unobligated Balances by Appropriation Account, as of September 2021

NNSA appropriation	Unobligated balance, as of September 2021 (dollars in millions)
Weapons Activities	872.0
Defense Nuclear Nonproliferation	466.3
Total	1,338.3

Source: GAO analysis of National Nuclear Security Administration (NNSA) data for the Weapons Activities and Defense Nuclear Nonproliferation appropriation accounts from the Department of Energy's September 2021 base financial report. | GAO-22-104541

About \$895.1 million (or about 67 percent) of NNSA's total unobligated balances for its Weapons Activities and DNN appropriation accounts was appropriated in fiscal year 2021 (see table 4). We analyzed these balances and found that they included about \$18.5 million in 2-year funding for the Secure Transportation Asset Program Direction operating activity within the Weapons Activities appropriation account.³⁹ The remaining \$876.6 million was no-year funding, of which about \$859.3 million (or about 98 percent) was preplanned carryover held in reserve for 48 operating activities and eight line-item construction projects. Our analysis also shows that about \$11.3 million of the prior-year unobligated balances was appropriated between fiscal years 2005 and 2016.⁴⁰ This funding remains available because it was no-year funding. By comparison, single-year funding appropriated during this period would no longer be available.

Table 4: NNSA Unobligated Balances by Appropriation Account and Appropriation Year, as of September 2021 (dollars in millions)

NNSA appropriation	2005 - 2016	2017	2018	2019	2020	2021	Unobligated balance, as of September 2021
Weapons Activities	6.1	12.7	2.7	4.5	7.7	838.5 ^a	872.0
Defense Nuclear Nonproliferation	5.2	0.0	16.7	97.9	289.8	56.6	466.3 ^b
Total	11.3	12.7	19.4	102.4	297.5	895.1	1,338.3

Source: GAO analysis of National Nuclear Security Administration (NNSA) data for the Weapons Activities and Defense Nuclear Nonproliferation appropriation accounts from the Department of Energy's September 2021 base financial report. | GAO-22-104541

Note: Totals may not match because of rounding.

^aThis total includes \$18.5 million in 2-year funding for the Secure Transportation Asset Program Direction operating activity within the Weapons Activities appropriation account that will expire at the end of fiscal year 2022. The remaining \$820 million is no-year funding.

^bOf the Defense Nuclear Nonproliferation appropriation account's \$466.3 million unobligated balance at the end of September 2021, \$334.1 million (or about 72 percent) was held in reserve. Specifically, \$330 million was held in reserve for the cancellation, in fiscal year 2022, of funds previously appropriated for the Mixed Oxide Fuel Fabrication facility, which was terminated in October 2018.

³⁹NNSA's Secure Transportation Asset Program Direction provides salaries, travel, and other related expenses in support of federal agents and the secure transportation workforce.

⁴⁰Two Weapons Activities PPAs and two DNN PPAs contributed to about \$7.2 million (or about 64 percent) of the \$11.3 million total unobligated balance from fiscal years 2005 through 2016. Specifically, from Weapons Activities, the Dynamic Materials Properties program had an unobligated balance of about \$1.1 million, and the Uranium Processing Facility line-item construction project at NNSA's Y-12 National Security Complex in Tennessee had an unobligated balance of about \$2.4 million. From DNN, the International Nuclear Materials Protection and Cooperation program had an unobligated balance of about \$2.1 million, and the Waste Solidification Building line-item construction project at the Savannah River Site in South Carolina had an unobligated balance of about \$1.6 million.

Once canceled, the funds are to be returned to the U.S. Treasury. The additional \$4.1 million was held in reserve to support the completion of other remaining termination activities.

Our analysis of EM's and NNSA's fiscal year 2021 unobligated balances also shows that EM and NNSA, in coordination with DOE's Office of the Chief Financial Officer, manage unobligated balances in ways consistent with how other federal agencies actively manage such balances. Specifically, our prior work in this area has shown that actively managing unobligated balances includes actions such as regularly reviewing unobligated balances, including ongoing monitoring and tracking throughout the year, and tracking which year the balances were appropriated.⁴¹

What were EM's and NNSA's uncosted balances at the end of fiscal year 2021, and to what extent were these balances comprised of funds appropriated more than 5 years ago?

According to our analysis, EM's and NNSA's uncosted balances totaled approximately \$12.2 billion at the end of fiscal year 2021. About \$168.7 million (around 1.4 percent) of these balances were comprised of funds appropriated more than 5 years ago. Our analysis shows that while the majority of these funds were no-year funds, it generally does not take EM and NNSA longer to cost their funds than it would if the funds were single-year funds.⁴²

EM's uncosted balance at the end of fiscal year 2021 totaled about \$2.6 billion (see table 5). This included about \$37 million in 2-year funding for EM's Defense Environmental Cleanup Program Direction. Our analysis shows that of EM's total uncosted balance, about \$1.7 billion was for operating activities, and about \$918.1 million was for line-item construction projects.

Table 5: EM Uncosted Balances by Appropriation Account and Category of Balances, as of the End of Fiscal Year 2021 (dollars in millions)

EM appropriation	Uncosted balances for operating activities	Uncosted balances for line-item construction projects	Total uncosted balance, as of the end of fiscal year 2021
Defense Environmental Cleanup	1,352.6	914.3	2,266.9
Non-Defense Environmental Cleanup	206.8	0.0	206.8
Uranium Enrichment Decontamination and Decommissioning Fund	131.1	3.8	134.9
Total	1,690.5	918.1	2,608.6

Source: GAO analysis of Department of Energy Office of Environmental Management (EM) data as of the end of fiscal year 2021. | GAO-22-104541

Our analysis shows that nearly all of EM's uncosted balance at the end of fiscal year 2021 was from funds appropriated during the past 5 fiscal years (see table 6). In contrast, about \$29.6 million (or about 1 percent of the \$2.6 billion total) was appropriated between fiscal years 2005

⁴¹GAO, *2013 Sequestration and Shutdown: Selected Agencies Generally Managed Unobligated Balances in Reviewed Accounts, but Balances Exceeded Target Levels in Two Accounts*, GAO-16-26 (Washington, D.C.: Oct. 30, 2015).

⁴²Under a fixed, or time-limited, appropriation, once the appropriation's period of availability has expired, the funds are no longer available for new obligations but remain available to an agency to liquidate obligations for an additional 5 years. Funds that have been obligated but not yet costed are at risk of being canceled if they remain at the end of the expired phase. After that, the appropriation account is closed, and any remaining balances are canceled.

and 2016 (i.e., more than 5 years old).⁴³ Of EM's \$29.6 million in uncosted balances more than 5 years old, about \$21.2 million was for operating activities, and about \$8.4 million was for line-item construction projects.⁴⁴

Table 6: EM Uncosted Balances by Appropriation Account and Appropriation Year, as of September 2021 (dollars in millions)

EM appropriation	2005 - 2016	2017	2018	2019	2020	2021	Uncosted balance, as of September 2021
Defense Environmental Cleanup	24.3	14.8	47.8	159.5	324.3	1,696.3	2,267.0
Non-Defense Environmental Cleanup	2.1	0.0	14.3	48.6	45.7	96.1	206.8
Uranium Enrichment Decontamination and Decommissioning Fund	3.2	0.1	0.6	0.4	1.5	128.9	134.7
Total	29.6^a	14.9	62.7	208.5	371.5	1,921.3	2,608.5

Source: GAO analysis of Department of Energy (DOE) Office of Environmental Management (EM) data from DOE's September 2021 base financial report. | GAO-22-104541

Note: Amounts in this table may not match the total amounts presented in table 5 as a result of rounding.

^aAbout \$19.7 million (or about 67 percent) of the \$29.6 million was appropriated in fiscal years 2015 and 2016.

The uncosted balances for NNSA's Weapons Activities and DNN appropriation accounts totaled about \$9.6 billion at the end of fiscal year 2021 (see table 7). This included about \$14.9 million in 2-year funding for the Secure Transportation Asset Program Direction operating activity. Our analysis shows that of NNSA's \$9.6 billion uncosted balance, about \$7.4 billion was for operating activities, and about \$2.2 billion was for line-item construction projects.

Table 7: NNSA Uncosted Balances by Appropriation Account and Category of Balances, as of the End of Fiscal Year 2021 (dollars in millions)

NNSA appropriation	Uncosted balances for operating activities	Uncosted balances for line-item construction projects	Total uncosted balance, as of the end of fiscal year 2021
Weapons Activities	5,870.2	2,014.9	7,885.1
Defense Nuclear Nonproliferation	1,518.1	158.5	1,676.6
Total	7,388.3	2,173.4	9,561.7

Source: GAO analysis of National Nuclear Security Administration (NNSA) data for the Weapons Activities and Defense Nuclear Nonproliferation appropriation accounts as of the end of fiscal year 2021. | GAO-22-104541

⁴³About \$162,000 of the \$29.6 million in uncosted balances more than 5 years old was 2-year funding for EM's Defense Environmental Cleanup Program Direction. These funds were appropriated in fiscal year 2016, with the period of availability being fiscal years 2016 and 2017.

⁴⁴In some instances, older uncosted balances may remain on a contract to cover any unexpected costs during the contract closeout process. For example, EM officials indicated that about \$2.1 million of the \$8.4 million in uncosted balances more than 5 years old attributable to line-item construction projects was for a project about to begin the closeout process. The officials said that once this process was completed and all commitments and liabilities were resolved, any remaining funds would be deobligated.

Note: The amounts presented in this table exclude offsetting collections, such as international contributions for certain nonproliferation programs.

We found that, similar to EM, nearly all of NNSA’s uncosted balances for these accounts were from funds appropriated between fiscal years 2017 and 2021 (see table 8). Our analysis shows that about \$139.1 million (around 1.5 percent of the \$9.6 billion total) was more than 5 years old as of the end of fiscal year 2021.⁴⁵ Of NNSA’s \$139.1 million in uncosted balances more than 5 years old, about \$99.4 million was for operating activities, and about \$39.7 million was for line-item construction projects. Moreover, about \$56.5 million (or about 41 percent) of the \$139.1 million was appropriated for two DNN programs—International Nuclear Materials Protection and Cooperation and International Nuclear and Radiological Material Removal and Protection.

Table 8: NNSA Uncosted Balances by Appropriation Account and Appropriation Year, as of September 2021 (dollars in millions)

NNSA appropriation	2005 - 2016	2017	2018	2019	2020	2021	Uncosted balance, as of September 2021
Weapons Activities	47.8	53.1	129.1	135.9	864.2	6,655.0	7,885.1
Defense Nuclear Nonproliferation	91.3	33.2	65.6	61.3	189.1	1,236.2	1,676.6
Total	139.1^a	86.3	194.7	197.2	1,053.3	7,891.2	9,561.7

Source: GAO analysis of National Nuclear Security Administration (NNSA) data for the Weapons Activities and Defense Nuclear Nonproliferation appropriation accounts from the Department of Energy’s September 2021 base financial report. | GAO-22-104541

Note: The amounts presented in this table exclude offsetting collections, such as international contributions for certain nonproliferation programs. In addition, the totals may not match as a result of rounding.

^aAbout \$93.3 million (or about 67 percent) of the \$139.1 million was appropriated in fiscal years 2015 and 2016.

DOE and NNSA officials told us that they take steps to track older uncosted balances, particularly those older than 5 years, and to ensure that older funds are spent before newer funds. For example, they use DOE’s financial management system to track available funds by appropriation year and share this information with contractors to provide awareness of, and visibility into, the age of any uncosted balances. NNSA officials said that sharing this information has helped contractors identify and reduce older balances. As a result, NNSA officials said, they are coordinating more with contractors to identify and draw down older, uncosted balances.

EM and NNSA Practices for Identifying Uncosted Balances That Warrant Greater Scrutiny and the Amounts of These Balances at the End of Fiscal Year 2021

How do EM and NNSA identify uncosted balances that warrant greater scrutiny?

To identify uncosted balances that warrant greater scrutiny for reasons other than balance age, EM and NNSA review uncosted balances for each PPA at the end of each fiscal year. Both agencies use an approach that entails evaluating the balances for (1) operating activities against predefined percentage target thresholds that DOE and NNSA developed; or (2) other activities, such as line-item construction projects, on a case-by-case basis. Percentage target thresholds identify the expected level of uncosted balances at the end of a fiscal year, if an

⁴⁵About \$136,000 of the \$139.1 million in uncosted balances more than 5 years old was 2-year funding for the Secure Transportation Asset Program Direction operating activity within the Weapons Activities appropriation account. These funds were appropriated in fiscal year 2016, with the period of availability being fiscal years 2016 and 2017.

operating activity is running smoothly. DOE developed this approach in fiscal year 1996 and has continued to use it since, with minimal changes.

When it developed this approach in 1996, DOE assessed the types of activities being performed to achieve project and program objectives. These types included contractor operating costs, federal operating costs, capital equipment procurement, and grants. DOE identified these activities with specific costing categories that display similar and predictable costing patterns. Because of this predictability, DOE assigned each costing category a percentage target threshold. According to DOE documents, uncosted balances greater than their target threshold at the end of a fiscal year should be scrutinized further to determine the extent to which the balances are appropriate.⁴⁶ DOE also found costing patterns for certain categories, such as line-item construction projects, to be less predictable. As a result, DOE decided to evaluate uncosted balances on a case-by-case basis rather than apply a percentage target threshold.⁴⁷

For costing categories that have a percentage target threshold, EM and NNSA use these thresholds to identify, for each PPA, an uncosted balance generally deemed appropriate to carry over at the end of each fiscal year. For each PPA, the target threshold is expressed as a percentage of that PPA's total funds available to cost in the current fiscal year.⁴⁸ For example, if a PPA had \$1 million available to cost in fiscal year 2021 and its percentage target threshold was 15 percent, it would generally be deemed appropriate to carry over a \$150,000 uncosted balance into fiscal year 2022. Table 9 describes the original costing categories that DOE developed in 1996 and, where applicable, the predefined percentage target thresholds and underlying assumptions and rationale supporting them.

⁴⁶DOE documents specifically define a target threshold as an analytical reference point (i.e., a specific dollar value or percentage of funds available) beyond which uncosted obligation balances should be given greater scrutiny.

⁴⁷We have previously reported that there is no need to establish a target level of carryover balances for construction projects because each one is unique, and its level of carryover balances can easily be measured against the remaining scope of work, milestones, and specific budget request. [GAO/RCED-96-57](#).

⁴⁸According to DOE's prior reports on uncosted balances, "total funds available to cost" represents the total of all obligated amounts that are available for costing during the year. It is calculated as the sum of uncosted obligations at the beginning of a fiscal year plus the current fiscal year's obligations. This total, however, does not include unobligated amounts. As a result, unobligated balances are not subject to target threshold analysis.

Table 9: DOE’s Original Costing Categories for Determining an Appropriate Level of Uncosted Balances at the End of a Fiscal Year

Costing category	Percentage target threshold^a	Description of costing category	DOE’s assumptions and rationale for the percentage target threshold
Contractor operating costs	13	Represents costs incurred by site and facility management contractors, which include management and operating contractors	DOE assumed a standard obligation cycle, meaning that there would be no significant delays in the apportionment of funds, such as those caused by a continuing resolution that would effectively delay DOE’s process for planning to obligate its new appropriations for the full fiscal year. The 13 percent target threshold represents about 6 to 7 weeks of operating funds, an amount that DOE determined would be appropriate for the contractors’ more streamlined procurement process.
Federal operating costs	17	Represents costs incurred for federal expenses, which can vary from federal procurements to payments for employees’ salaries and travel	DOE assumed that there would be no delays in the apportionment of funding and that only standard funding instruments, such as contracts, would be used. The 17 percent target threshold represents approximately 2 months of carryover, an amount that DOE determined would be appropriate at the beginning of the next fiscal year to facilitate the receipt of new funding and to process procurement requests.
Capital equipment, general plant projects, and accelerator improvement projects ^b	50	Represents costs incurred for these types of equipment and minor construction projects	According to DOE documents, minor construction projects or procurements like these typically have higher uncosted balances because they generally take more than 1 year to complete. As a result, DOE determined that as much as 50 percent could be uncosted in the first year for these types of activities.
Line-item construction projects, ^c grants, ^d cooperative agreements, ^e and reimbursable work ^f	Not subject to a specific threshold	Represents costs incurred for individual programs, projects, and activities for which the budgetary resources needed for their execution are finite and based on documentation, such as cost estimates	According to DOE documents, the department determined that these costing categories would not be subject to a specific threshold and must be evaluated on a case-by-case basis.

Source: GAO analysis of the Department of Energy (DOE) documents. | GAO-22-104541

^aThe percentage target thresholds are representative of the total funds available to cost in the current fiscal year for each program, project, and activity. According to DOE documents, the total funds available to cost is calculated as the sum of uncosted obligations at the beginning of a fiscal year plus the current fiscal year’s obligations; no unobligated amounts are included.

^bCapital equipment includes real and personal property owned by DOE and recorded in the completed plant accounts; it is property that meets monetary and service life criteria for capitalization (i.e., service life of 2 years or more and cost of \$25,000 or more), regardless of appropriation or fund charged. General plant projects are miscellaneous minor construction projects with a total estimated cost of less than \$10 million and that are necessary to construct or adapt facilities to new or improved production

techniques; to affect economy of operations; and to reduce or eliminate health, fire, and security hazards. Accelerator improvement projects are similar to general plant projects, but involve improvements for less than \$20 million to accelerators.

^oLine-item construction projects are distinct design, construction, betterment, or fabrication activities, efforts, or projects for which Congress will be requested to authorize and appropriate specific funds (capital or operating) and where the resulting asset (structure, equipment, facility, product, system, or plant) has an estimated useful life of 2 years or more.

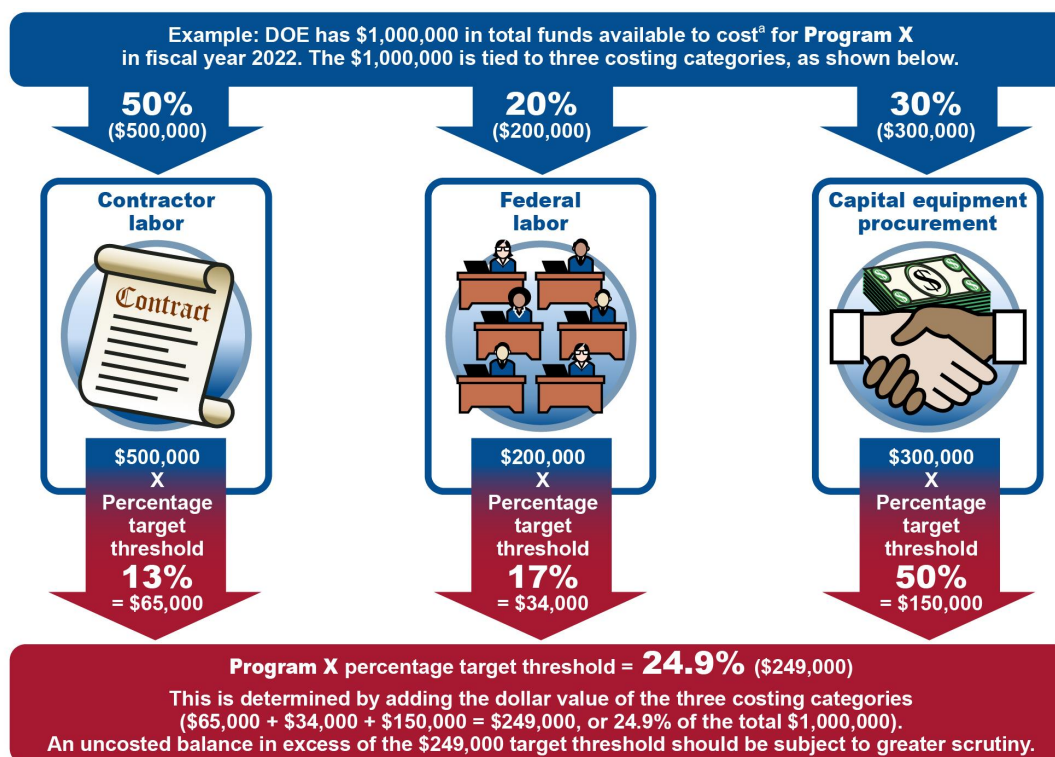
^dGrants are a type of federal assistance, in the form of money or property, authorized by federal law to support programs with a public purpose that the government wishes to encourage.

^eCooperative agreements are a type of federal assistance that, while similar to a grant, differ because under a cooperative agreement, there is substantial involvement between the department and the recipient during the performance of the funded activity.

^fReimbursable work is work or services performed or to be performed for a federal or nonfederal customer. DOE is compensated by reimbursement, which may be credited, as authorized by law, to the appropriation or to a DOE fund account that incurred the costs.

Because PPAs can include a combination of activities described by different costing categories, DOE blends the category-based thresholds to create a weighted percentage target threshold for each PPA that is representative of all of the activities being performed. Figure 6 shows an example of how the category-based thresholds of a generic DOE PPA are blended to create a weighted percentage target threshold.

Figure 6: Example of the Construction of a Weighted Percentage Target Threshold for a DOE Program, Project, or Activity



Source: GAO analysis of Department of Energy (DOE) documents. | GAO-22-104541

Note: The example in this figure does not apply to line-item construction projects, which are not subject to a specific threshold and are evaluated on a case-by-case basis.

^aAccording to DOE documents, “total funds available to cost” represents the total of all obligated amounts available for costing during the year. It is calculated as the sum of uncosted obligations at the beginning of a fiscal year plus the current fiscal year’s obligations. This total, however, does not include unobligated amounts.

When using the thresholds to identify excess uncosted balances that warrant further scrutiny, EM and NNSA compare the blended threshold amount with the PPA’s total fiscal year-end

uncosted balance to determine the difference between the blended threshold target and the actual uncosted carryover balance. Because the thresholds are used to determine this difference, they are elements of DOE's internal control system, and DOE uses them as tools to monitor its financial performance and to indicate when excess uncosted balances may warrant greater scrutiny.⁴⁹

Since 1996, DOE has added two costing categories and assigned them percentage target thresholds. First, around 2008, DOE officials said they established a costing category for grants and cooperative agreements and assigned it a 40 percent target threshold.⁵⁰ According to DOE officials, the execution period for most grants and cooperative agreements ranges from 3 to 5 years. Some grants and cooperative agreements are fully funded from the start, but others are not, the officials said. As a result, the department chose the 40 percent target threshold based on the historical average for the execution period for most grants and cooperative agreements.

Second, in early 2016, NNSA established a 45 percent target threshold for its weapon modernization programs, which primarily include life extension programs (LEP).⁵¹ Within DOE, these programs are funded solely through NNSA's Weapons Activities appropriation account. Historically, because NNSA obligated most funding for LEPs to site and facility management contractors, the programs were generally subject to a 13 percent threshold, according to an NNSA document that discussed the need for an LEP-specific threshold. However, the document argued, NNSA's LEPs consistently exceeded DOE's uncosted balance thresholds for several years and would benefit from an increased threshold, in part because the program management strategy for LEPs mirrored more closely the strategy of a construction project than of an operating activity. For example, LEPs have a clear scope of work, milestones that extend over multiple years, and are very procurement intensive. As a result, a senior NNSA official said, NNSA agreed on the 45 percent threshold for LEPs and other weapon modernization programs.

To what extent did EM and NNSA operating activities have uncosted balances that warranted greater scrutiny at the end of fiscal year 2021?

We analyzed EM and NNSA data and identified 144 operating activities (i.e., PPAs that use operations and maintenance funds, in contrast to line-item construction projects) that had uncosted balances warranting greater scrutiny at the end of fiscal year 2021 because they exceeded their applicable thresholds by about \$3.5 billion.⁵² This amount represents about 38

⁴⁹An internal control system is a continuous built-in component of operations, effected by people, that provides reasonable assurance, not absolute assurance, that an entity's objectives will be achieved. Moreover, an effective internal control system helps an entity adapt to shifting environments, evolving demands, changing risks, and new priorities. For more, see GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014).

⁵⁰Under DOE's original costing categories, thresholds did not apply to grants and cooperative agreements. According to DOE's financial management handbook, a grant is federal assistance, in the form of money or property, authorized by federal law to support programs with a public purpose that the government wishes to encourage. A cooperative agreement is federal assistance similar to that of a grant. However, the primary distinguishing feature between a grant and a cooperative agreement is that, under a cooperative agreement, there is substantial involvement between the department and the recipient during the performance of the funded activity.

⁵¹NNSA weapon modernization programs include not only LEPs but also weapon alterations and modifications. Much like an LEP, a weapon alteration replaces or refurbishes components to ensure that the weapon can continue to meet military requirements. However, an alteration generally refurbishes fewer components than an LEP and does not specifically extend a weapon's operational lifetime. More recently, NNSA has begun weapon modernization programs constituting a broader scope than LEPs and, in one case, is managing a program as a new acquisition.

⁵²These uncosted balances pertain only to EM and NNSA operating activities and do not include balances for line-item construction projects, which are not subject to specific thresholds. Moreover, the total is not a net balance that

percent of the approximately \$9.1 billion total uncosted balance for EM's and NNSA's operating activities. More specifically:

- **EM had 34 out of 52 operating activities with uncosted balances that exceeded their applicable thresholds by a total of about \$584.2 million.**⁵³ This amount represents about 34 percent of the approximately \$1.7 billion total uncosted balance for EM's operating activities. Nine of these 34 operating activities had uncosted balances that exceeded their applicable thresholds by \$15 million or more, for a total of about \$494.4 million (or about 85 percent of the \$584.2 million).⁵⁴ For example, the Small Sites operating activity within EM's Non-Defense Environmental Cleanup appropriation account had an uncosted balance that exceeded its applicable threshold by about \$111.7 million.⁵⁵ Also, the operation of the Waste Isolation Pilot Plant within EM's Defense Environmental Cleanup appropriation account had an uncosted balance that exceeded its applicable thresholds by about \$89.1 million.⁵⁶ Table 17 in enclosure III provides additional information about the EM operating activities with uncosted balances in excess of their applicable thresholds by \$15 million or more at the end of fiscal year 2021.
- **NNSA had 110 out of 165 operating activities with uncosted balances that exceeded their applicable thresholds by about \$2.9 billion.**⁵⁷ This amount represents about 39 percent of the approximately \$7.4 billion total uncosted balance for NNSA's operating activities. Of these 110 operating activities, 41 had uncosted balances that exceeded their applicable thresholds by \$15 million or more, for a total of about \$2.8 billion (or about 97 percent of the \$2.9 billion). For example, the Infrastructure and

includes both the over- and under threshold balances. That is, the \$3.5 billion amount represents the sum of all of the amounts over the thresholds for all PPAs and excludes any PPAs that had year-end uncosted balances under the applicable thresholds.

⁵³EM's 52 operating activities includes a mix of current PPAs that are part of the fiscal year 2021 budget structure, as well as older PPAs that are either not part of the current structure but still have funds being costed or are in the closeout process and, therefore, need to retain funds until that process is completed.

⁵⁴To better understand EM and NNSA operating activities with uncosted balances in excess of applicable thresholds at the end of fiscal year 2021, we identified a nongeneralizable sample of 50 EM and NNSA operating activities to review further by selecting those activities with balances that exceeded DOE's thresholds by \$15 million or more. We selected the \$15 million benchmark based on our review of EM's and NNSA's data, in part because we judged that it represented a natural breakpoint that described the majority of the uncosted balances that exceeded the applicable thresholds. As these 50 EM and NNSA operating activities are a nongeneralizable sample, our results cannot be generalized to all EM and NNSA operating activities.

⁵⁵The Small Sites operating activity includes work performed at multiple EM locations, including the Brookhaven National Laboratory in Upton, New York; Energy Technology Engineering Center near eastern Ventura County, California; Idaho National Laboratory in Idaho Falls, Idaho; Lawrence Berkeley National Laboratory in Berkeley, California; Moab Site in southeastern Utah; and Oak Ridge Site in Oak Ridge, Tennessee.

⁵⁶The Waste Isolation Pilot Plant, located near Carlsbad, New Mexico, is the nation's only deep geologic repository for the disposal of a specific type of defense-related nuclear waste, referred to as transuranic waste, generated by DOE's nuclear weapons research and production and cleanup activities at sites across the country. For more details, see GAO, *Nuclear Waste Disposal: Better Planning Needed to Avoid Potential Disruptions at Waste Isolation Pilot Plant*, [GAO-21-48](#) (Washington, D.C.: Nov. 19, 2020).

⁵⁷NNSA's 165 operating activities includes a mix of current PPAs that are part of the fiscal year 2021 budget structure for the Weapons Activities and DNN appropriation accounts, as well as older PPAs that are either not part of the current structure but still have funds being costed, or are in the closeout process and, therefore, need to retain funds until that process is completed.

Safety activity in the Weapons Activities appropriation account had an uncosted balance that exceeded its threshold by about \$295.3 million. Also, the Nuclear Smuggling Detection and Deterrence program in the DNN appropriation account had an uncosted balance that exceeded its threshold by about \$150.5 million. Table 19 in enclosure III provides additional information about the NNSA operating activities with uncosted balances in excess of applicable thresholds by \$15 million or more at the end of fiscal year 2021.

Many of the EM and NNSA operating activities with year-end uncosted balances that exceeded their applicable thresholds by \$15 million or more at the end of fiscal year 2021 also carried over balances in excess of their thresholds in prior years, according to our analysis. For example, we found that EM's Small Sites and Oak Ridge Cleanup and Disposition activities carried over uncosted balances in excess of their applicable thresholds by \$15 million or more in each of the past 5 fiscal years (see table 18 in enc. III for additional details). We also found that many of the 41 NNSA operating activities with excess uncosted balances at the end of fiscal year 2021 had carried over uncosted balances in excess of DOE's thresholds by \$15 million or more in each of the past 5 fiscal years (see table 20 in enc. III for additional details).

Identifying and understanding these types of trends is important because excessive or growing carryover balances over a number of years can indicate potential problems within a program or project. Such problems may include poor program or project management practices that prevent timely execution of funding or a program or project that receives more resources than it can use effectively or efficiently. These types of growing carryover balances should receive greater scrutiny to ensure that they do not reflect an inefficient use of resources or tie up funds that could be appropriated by Congress for other priorities.

What other factors does NNSA consider with uncosted balances, and how do they relate to balances in excess of thresholds at the end of fiscal year 2021?

NNSA—specifically DNN—also considers encumbrances when evaluating whether its operating activities have uncosted balances in excess of applicable thresholds. NNSA does so because it is required to report to Congress on such balances.⁵⁸ According to NNSA documents, obligated funds are “encumbered” by awarding direct contracts to non-M&O contractors, awarding or issuing subcontracts or purchase orders by M&O contractors to third parties, or undertaking certain other encumbering actions by M&O contractors.⁵⁹ As a result, uncosted balances can be encumbered or unencumbered. An unencumbered balance represents the portion of the uncosted balance not yet encumbered by the contractor.⁶⁰

⁵⁸DNN reports to Congress annually on any unencumbered or uncosted balances that exceed DOE's thresholds in response to requirements in 50 U.S.C. § 2575(c)(6). NNSA documents also state that DNN measures financial performance in terms of the percentage of funds that have been costed and encumbered, rather than just the percentage of funds that has been costed, because a great deal of DNN's work involves multiyear projects or is performed overseas. NNSA officials have previously told us that to perform work overseas, an overseas partner frequently requires funds to be encumbered in full but may cost the work slowly or unpredictably.

⁵⁹We have previously reported that encumbrances can consist of uncosted balances of (1) purchase orders issued; (2) contracts and subcontracts awarded, including the full liability under lease purchases and capital leases; and (3) termination costs for incrementally funded, firm-fixed price contracts, operating lease agreements, and multiyear service contracts that contain termination clauses. GAO, *Energy Management: Additional Uncosted Balances Could Be Used to Meet Future Budget Needs*, [GAO/RCED-94-26](#) (Washington, D.C.: Oct. 26, 1993).

⁶⁰We have previously reported that unencumbered balances can be categorized as (1) approved work scope, which consists of balances for work that is clearly defined in task or work authorizations or program direction letters; (2) prefinancing, which is funding maintained for the purpose of ensuring continuity of contractor operations during a

DOE's percentage target thresholds apply to uncosted balances in their entirety and do not take encumbrances into account. However, because the nature of DNN work overseas can affect the predictability of costing patterns, DOE also considers encumbrances when determining DNN uncosted balances that warrant greater scrutiny. In our review of DNN's fiscal year 2021 data, when comparing the thresholds to only the unencumbered portion of the balance, we found that 21 DNN operating activities exceeded the uncosted balance thresholds by about \$244.6 million at the end of fiscal year 2021. This amount represents about 36 percent of the approximately \$673.3 million total unencumbered uncosted balance for these activities.

In addition, we found that six of these 21 operating activities had unencumbered uncosted balances of \$15 million or more, for a total of about \$192.5 million (or about 79 percent of the \$244.6 million). Table 21 in enclosure III provides additional information. We also found that several of the six DNN operating activities with year-end unencumbered uncosted balances exceeding the thresholds by \$15 million or more at the end of fiscal year 2021 also had unencumbered uncosted balances in excess of the thresholds in prior years. For example, the International Nuclear Security and Material Disposition activities carried over unencumbered uncosted balances in excess of the thresholds by \$15 million or more in each of the past 5 fiscal years (table 22 in enc. III provides additional details).

To what extent did EM's and NNSA's line-item construction projects have uncosted balances at the end of fiscal year 2021?

In our analysis of EM and NNSA data, we identified 59 EM and NNSA line-item construction projects with about \$3.1 billion in uncosted balances at the end of fiscal year 2021.⁶¹ Specifically, EM had 23 line-item construction projects with a total uncosted balance of approximately \$918.1 million. NNSA's Weapons Activities and DNN appropriation accounts had 36 line-item construction projects with a total uncosted balance of approximately \$2.2 billion. According to DOE documents, because line-item construction projects are not subject to a specific threshold, their uncosted balances are to be reviewed on a case-by-case basis to determine whether the balances being carried over to the next fiscal year are appropriate.

Drivers of EM and NNSA Excess Uncosted Balances and Actions They Take to Manage These Balances

What are the drivers of EM and NNSA excess uncosted balances?

According to our analysis of EM and NNSA data and interviews with agency officials, we identified a number of drivers that contribute to excess uncosted balances.⁶² Some of these

potential funding lapse at the beginning of a fiscal year; or (3) remaining unencumbered, which is the portion that remains after subcontracting approved work scope and prefinancing and may be potential excess funding resulting from project and program underruns and changing program missions. [GAO/RCED-94-26](#).

⁶¹The 59 line-item construction projects discussed here include ongoing EM and NNSA projects and completed EM and NNSA projects that are undergoing the project closeout process. In such cases, funds need to remain on the contract for any unexpected associated costs. Once the contract closeout process is completed, any remaining funds should be deobligated.

⁶²We previously identified some of the drivers for EM and NNSA excess uncosted balances in technical assistance reviews we conducted for relevant congressional committees between fiscal years 2017 and 2020 that evaluated EM's and NNSA's uncosted balances against DOE's thresholds. This type of technical assistance to Congress is considered a routine nonaudit service and does not result in a publicly available product. However, the work is conducted in accordance with all relevant sections of GAO's Quality Assurance Framework, and DOE has the opportunity to review the factual accuracy of the information we provide and suggest technical corrections.

drivers may fully explain the uncosted balance for a specific program, requiring no further scrutiny. For example, the impacts of continuing resolutions, long-lead procurements, and the COVID-19 pandemic may fully explain an uncosted balance. Table 10 provides additional examples of these types of drivers.

Table 10: Examples of Drivers of Excess Uncosted Balances That May Fully Explain a Balance for DOE’s Office of Environmental Management (EM) and National Nuclear Security Administration (NNSA)

Driver	Description of effects on uncosted balances
Continuing resolutions	<p>Continuing resolutions delay full-year funding. This can result in EM and NNSA programs, projects, and activities (PPA) accumulating uncosted balances for several reasons:</p> <ul style="list-style-type: none"> • EM and NNSA operate on a conservative basis because of uncertainty about when Congress will approve the regular appropriations act. When enactment of the regular appropriations act is delayed months into the fiscal year, PPAs often face difficulty in fully costing available funds before the end of the fiscal year because of the shorter period in which to execute the regular appropriation. • EM and NNSA are prohibited from engaging in any “new starts” for contracts or projects. As a result, these activities are deferred until later in the fiscal year (i.e., after the regular appropriations act is enacted), which shortens the amount of time during which the funds can be obligated and made available for costing before the end of the fiscal year. • EM and NNSA PPAs may keep uncosted balances to ensure that they can continue operations with the limited funds available during a continuing resolution at the beginning of the following fiscal year.
Receiving larger-than-requested appropriations	Receiving larger-than-requested appropriations can cause execution challenges and contribute to excess uncosted balances, particularly when significant increases coincide with continuing resolutions.
Up-front funding of PPAs	In certain cases, PPAs fully fund contracts at contract award even though the contract is to be executed over multiple years. As a result, uncosted balances will persist for a time, since the costing is spread over an extended period.
Long-lead procurements	Long-lead procurements—orders for equipment, services, or materials that must be placed well in advance of the need because of long delivery times—can contribute to the growth of uncosted balances. This is particularly true for long-lead procurements that can take multiple years to cost, as well as those that take several months but occur across budget periods.
Reprogramming ^a	The time it can take to carry out a reprogramming can lead to the late receipt of reprogrammed funds, such as at the end of a fiscal year. The late availability of such funds can delay contract awards and cause costing delays, such as for long-lead procurements.
Closeout process for contracts	After contract deliverables are completed, a contract closeout process starts, during which some uncosted balances must be retained pending completion of closeout procedures. These include the receipt and payment of final invoices, conduct of final contract audits, and final settlement of cost and fee.
COVID-19 pandemic	The COVID-19 pandemic has affected EM and NNSA uncosted balances, particularly as a result of work stoppages and slowdowns and delays for long-lead procurements, which have caused costing delays.

Source: GAO analysis of Department of Energy (DOE) EM and NNSA data and documents and interviews with agency officials. | GAO-22-104541

^aReprogramming is the shifting of funds within an appropriation or fund account for purposes other than those contemplated at the time of appropriation. Generally, agencies may shift funds within an appropriation or fund account as part of their duty to manage their funds. As such, agencies may reprogram without additional statutory authority. Nevertheless, reprogramming often involves some form of notification to the congressional appropriations committees, authorizing committees, or both.

We also identified drivers that can contribute to EM’s and NNSA’s excess uncosted balances but may not fully explain a balance and may warrant further scrutiny to address any underlying

issues. Examples of such drivers include unanticipated changes to program scope, challenges with construction execution, and problems with procurement. Table 11 provides examples of such drivers.

Table 11: Examples of Drivers of Excess Uncosted Balances That May Not Fully Explain a Balance, for DOE’s Office of Environmental Management (EM) and National Nuclear Security Administration (NNSA)

Driver	Description of effects on uncosted balances
Unanticipated changes in program or project scope	The scope of a program or project may be reduced or eliminated after it obligates funding. Funding associated with that work scope, if not redirected to other program or project activities that can utilize it, may lead to a higher than planned uncosted balance because the program or project has funding that exceeds the amount needed to meet the reduced scope.
Delays in procurement	A program or project may experience a procurement delay, such as while negotiating a contract for delivery of goods or services by a contractor. Delays in getting appropriate contracting vehicles in place may delay the start of a program or project activity and defer the planned costing of funds. Persistent delays in a procurement can indicate a larger execution challenge.
Unanticipated program execution challenges or delays	<p>A program or project may encounter delays in its ability to execute in accordance with a planned schedule on account of unforeseen circumstances, such as delays in the delivery of goods or services by a contractor or subcontractor, or litigation. Such challenges or delays may prevent timely costing of funding by the program or project and contribute to higher uncosted balances.</p> <p>In addition, construction projects may encounter delays if bids from subcontractors come in higher than original estimates indicated, there are challenges with a project’s design, or a project is subject to regulatory decisions from a third party.</p>
Irregular costing and obligation patterns for contracts or grants	A program may experience irregular costing patterns for contracts or grants, in which the recipient’s costing plans do not align with the fiscal year. For example, NNSA officials noted that there are often long lead times in awarding grants to institutions of higher learning and that it can take universities longer to pay for invoices, sometimes upwards of 3 to 6 months. These circumstances may preclude costing of funding in the year of obligation and result in higher uncosted balances until costing activities occur in the subsequent fiscal year.
Delays associated with work performed in foreign countries	Costing of program work in foreign countries follows a different pattern than for program work domestically. In particular, this can include different or more complicated contract negotiations with overseas contractors or subcontractors who may require that all program funds be encumbered up front. Further, activities performed by a foreign contractor or subcontractor may cost more slowly as specific work tasks are verified as completed.

Source: GAO analysis of Department of Energy (DOE) EM and NNSA data and documents and interviews with agency officials. | GAO-22-104541

Some of the drivers behind EM’s and NNSA’s excess uncosted balances result from events outside EM’s and NNSA’s control, particularly the timing of when Congress enacts DOE’s and NNSA’s regular appropriations and whether EM and NNSA need to operate under multiple short-term continuing resolutions. The COVID-19 pandemic has also contributed to some of EM’s and NNSA’s more recent excess uncosted balances. For example, EM and NNSA have taken actions since March 2020 that include adopting necessary workplace safety measures such as undertaking work stoppages or slowdowns and implementing a maximum telework posture. These actions have, in a number of cases, contributed to increased uncosted balances as a result of costing delays, reduced project team efficiencies, and the inability to execute certain PPAs. However, as table 11 shows, some drivers are related to program management and budget execution challenges that EM and NNSA can take actions to address to manage excess uncosted balances and to realign PPAs with their applicable thresholds.

What actions are EM and NNSA taking to manage excess uncosted balances?

EM and NNSA officials told us that they manage excess uncosted balances by monitoring the balances and periodically reviewing and discussing them with the M&O contractor representatives who manage DOE's and NNSA's sites. For example, EM officials told us that they met with the site contractors at the Waste Isolation Pilot Plant to discuss the contractors' spend rates, activities that would need to take place to come in under or at the relevant thresholds, and the site contractors' plans to expend funds for the rest of the year. The officials also told us that information on the site contractors' uncosted balances can inform EM's priority list of projects that EM plans to carry out in the upcoming fiscal year and future budget requests. However, they noted that this review is informal and not documented in EM's budget development process. NNSA officials told us that they also review uncosted balances during their discussions with site contractors. These discussions are guided by NNSA's monthly execution reports, which include information on amounts of uncosted funds, DOE thresholds, federally encumbered funds, M&O encumbered funds, and end-of-year rate of execution. The officials told us that these discussions help provide the contractors with awareness about the age of any uncosted balances.

In addition to monitoring these balances, and in coordination with Congress, EM and NNSA manage their excess uncosted balances by taking additional actions, including the following:

- **Reprogramming.** EM and NNSA can initiate a shift between PPA levels within a single appropriation account, but doing so may require certain procedures. For example, DOE's fiscal year 2021 appropriation provides that DOE shall notify the congressional appropriations committees before any proposed reprogramming that would cause any PPA funding level to increase or decrease by more than \$5 million or 10 percent, whichever is less. DOE has historically used the phrase "internal or limited reprogramming" to refer to reprogrammings below these levels. NNSA officials told us that they can execute an internal reprogramming fairly quickly. For example, they said that NNSA reprogrammed nearly \$120 million in excess carryover balances between fiscal years 2017 and 2022. In contrast, DOE officials told us that they have at times faced difficulties in carrying out other types of reprogrammings, in part because it can be time consuming to notify congressional appropriations committees. Nonetheless, the officials said that they are considering ways to streamline the process, such as completing closeout audits sooner so officials have a more accurate picture of funding available for reprogramming.
- **Rescission.** Congress may enact a rescission, which is legislation that cancels the availability of previously enacted budget authority before the authority would otherwise expire. Rescissions of budget authority may be proposed for fiscal policy or other reasons. Congress or the agency can initiate a rescission. For example, in its fiscal year 2021 budget request, DOE proposed a rescission of \$109 million in funds for work to address high-risk and legacy contamination at Lawrence Livermore National Laboratory.⁶³
- **Planning for use of prior-year funds.** During their budget formulation process, EM and NNSA can identify excess carryover balances that they intend to cost during a subsequent fiscal year and include information about this planning in their congressional budget justifications. Such information can justify a lower-than-usual budget request for

⁶³According to a DOE document, the \$109 million was identified for rescission as a prior-year offset (i.e., a source of funds to offset a future year's funding requirements). Although DOE proposed the rescission, Congress did not rescind the funds.

a PPA in a given fiscal year. For example, EM officials told us that in preparing EM's fiscal year 2021 budget request, they had sufficient carryover funds for four construction projects and did not request additional funding.⁶⁴ Also, NNSA officials told us that as part of NNSA's fiscal year 2023 budget development cycle, they reviewed some NNSA contractors' spend plans in part because the plans consider carryover balances. Officials from DOE's Office of the Chief Financial Officer also told us that DOE intends to do a more consolidated review and reprioritization of current uncOSTed balances for future budget requests. However, because this is a new effort, the officials did not have additional details on how DOE would implement it or any changes to the budget formulation process that could result from this effort.

- **Modifying the scope or contract of a PPA.** As described above, accumulating uncOSTed balances in excess of thresholds can indicate broader execution problems that program and project managers need to address. EM and NNSA can take actions to cancel problematic procurements, make modifications to contracts, or assess program and project management challenges. For example, after our October 2010 recommendation that NNSA better account for large uncOSTed balances in the Tritium Readiness Program, NNSA changed the timing of its contract option structure to better coincide with the cycles of work being performed.⁶⁵ These changes resulted in NNSA obligating and costing program funds in a more efficient manner over the multiyear contract.

While EM and NNSA can take such actions to manage excess uncOSTed balances, DOE's annual appropriations laws can limit available actions. For example, DOE's fiscal year 2021 appropriation provides that reprogrammed funds are not available to (1) create, initiate, or eliminate a PPA; (2) increase funds or personnel for any PPA for which funds are denied or restricted by the act; or (3) reduce funds that are directed to be used for a specific PPA by the act. In addition, DOE guidance states that DOE shall not reprogram funds to initiate a new program or to seek reconsideration of a program or of funding specifically denied, limited, or decreased by Congress in an appropriation or associated reports.

To what extent are the actions EM and NNSA take similar to those selected agencies use to manage and reduce carryover balances?

We found that some of the actions that EM and NNSA use are similar to those used by DHS, DOD, and State, agencies that also manage carryover balances that we selected for further review. For example, EM and NNSA officials stated that they discuss carryover balance data with the contractors who manage their sites and programs. Similarly, officials from DHS's Office of the Chief Financial Officer told us that they discuss unobligated balances with components of the department, as required, after the monthly submission and review of obligation plans, as well as during midyear program reviews.⁶⁶ Likewise, officials from State's Bureau of Budget and

⁶⁴In fiscal year 2021, DOE did not request funding for four projects: (1) Safety Significant Confinement Ventilation System, Waste Isolation Pilot Plant, New Mexico; (2) Waste Encapsulation and Storage Facility Modifications and Capsule Storage, Hanford Site, Washington; (3) Waste Treatment and Immobilization Plant Pretreatment Facility, Hanford Site; and (4) Waste Treatment and Immobilization Plant High-Level Waste Facility, Hanford Site. Although DOE did not request funding for these projects, Congress provided funding for all but the Waste Treatment and Immobilization Plant Pretreatment Facility.

⁶⁵GAO, *Nuclear Weapons: National Nuclear Security Administration Needs to Ensure Continued Availability of Tritium for the Weapons Stockpile*, GAO-11-100 (Washington, D.C.: Oct. 7, 2010).

⁶⁶DHS officials indicated in our discussions that the agency focuses its attention primarily on managing multiyear unobligated funds, in part because they manage significantly more multiyear funding with specific dates for when the

Planning told us that they have regular dialogue with the bureaus about the appropriate levels of carryover balances for a given program.

However, we found that DHS, DOD, and State have management practices that more clearly demonstrate how carryover balance information can inform their decisions on budget execution and future budget development. For example, DHS officials told us that they prepare monthly obligation plans and execution reports that they use to adjust future funding needs and ongoing spend plans. If DHS budget officials question the justification for a component office's high carryover balance, the budget staff retain the option to elevate the issue to senior leadership and recommend that the underutilized funding be made available for reprogramming. State officials told us that they regularly review information on unliquidated obligations and unobligated balances to identify all potential carryover balances, recommend funds for reprogramming, and prioritize use of these funds to support State's highest priorities.

Officials from DOD's Office of the Comptroller also provided us with information on how carryover balances inform their budget execution decisions. DOD officials told us that they manage these balances by using benchmarks to routinely analyze the rates for expending funds for the procurement and research, development, test and evaluation (RDT&E) appropriation accounts. Such benchmarks are known internally as the "80/55 rule." Under these benchmarks, DOD officials said, at least 80 percent of the funds are to be obligated by the end of the first year of availability for procurement programs, and 55 percent of the funds are to be expended by the end of the first year of availability for RDT&E programs.⁶⁷

According to DOD officials, an Office of the Comptroller team analyzes procurement and RDT&E program balances—usually by the middle of the fiscal year—to determine if any are unlikely to meet the "80/55" benchmarks by the end of the fiscal year. After identifying and discussing potential excess balances with program staff, Office of the Comptroller staff told us that, in coordination with the Comptroller, they can and often do send program decision memorandums to the Deputy Secretary that identify options for excess funds, such as reprogramming excess balances to other programs.

Limitations to the Thresholds and Guidance Used to Manage Excess Uncosted Balances

What limitations are there in the thresholds and guidance that EM and NNSA use to manage their excess uncosted balances?

We identified five limitations to the thresholds and guidance that EM and NNSA use to manage their excess uncosted balances. These thresholds serve as tools to monitor the department's financial performance and thus are elements of DOE's internal control system designed to indicate when excess uncosted balances may warrant greater scrutiny. Therefore, it is important for the thresholds to operate effectively as indicators. Consistent with internal control standards, it is also important for there to be clear documentation of these thresholds and guidance for their use. However, through our review of DOE and NNSA data and documents and interviews with agency officials, we found that DOE and NNSA (1) did not clearly document their thresholds; (2) did not document well-justified bases for the newest thresholds; (3) do not periodically review their thresholds; (4) do not have a documented process to guide assessments of, and justifications for, excess uncosted balances; and (5) do not have guidance detailing how staff

funds expire. Nevertheless, DHS officials told us that they do have conversations about the status of no-year balances, although conversations related to those types of carryover balances occur less frequently.

⁶⁷DOD does not have a specific benchmark for procurement expenditures.

should incorporate information on excess uncosted balances into the budget formulation process.

1. **Thresholds not clearly documented.** Neither DOE nor NNSA clearly documented their thresholds. In particular, we found that the primary documentation of DOE's thresholds is in older reports on DOE uncosted balances that DOE provided to Congress, most recently in July 2016.⁶⁸ These reports provide a brief background on DOE's approach to applying predefined percentage target thresholds for certain costing categories (described earlier in table 9) to identify excess balances that should be given greater scrutiny. However, the reports only present more detailed information about the three original costing categories for which DOE established percentage target thresholds (13, 17, and 50 percent). Neither DOE nor NNSA have documented guidance or requirements about how the thresholds should be applied to uncosted balances or that makes clear their purpose (i.e., that uncosted balances should be able to be well justified, if the thresholds are exceeded).

We found that as a result of an absence of documentation detailing how thresholds should be applied, EM and NNSA sometimes inconsistently applied the thresholds to identify uncosted balances in excess of applicable thresholds. For example, according to EM data and EM officials, EM applies a 50 percent threshold to line-item construction projects. However, as discussed above, line-item construction projects are not intended to be subject to a specific threshold. Rather, documents indicate that such projects must be evaluated on a case-by-case basis. In addition, two senior DOE officials told us that EM and NNSA staff do not always interpret the thresholds in the same way. These officials said that some treat the thresholds as a floor, or target, and aim to carry over a certain amount of uncosted balances, whereas others treat the thresholds as a ceiling or level that should not be exceeded. As a result of this inconsistent understanding of the thresholds, EM and NNSA staff—particularly among staff treating the thresholds as a floor, or target amount of uncosted balances they should try to carryover at the end of a fiscal year—may carryover an unnecessarily large amount of uncosted balances from one fiscal year to the next.

According to *Standards for Internal Control in the Federal Government*, documentation is required to demonstrate the effective design, implementation, and operating effectiveness of an entity's internal control system.⁶⁹ Such documentation is a necessary part of an internal control system, as effective documentation assists management's design of internal control by establishing and communicating to personnel the who, what, when, where and why of internal control execution.⁷⁰ Without documentation that clearly details how to apply thresholds—including in cases when activities do not need to be subject to a threshold—and better defines the purpose of percentage targets, EM and NNSA could continue using the thresholds inconsistently or in ways that reinforce behaviors that seek to maximize uncosted carryover balances.

2. **No documentation of well-justified bases for the newest thresholds.** We found that DOE and NNSA did not document well-justified bases for their newest thresholds—the

⁶⁸Department of Energy, *Report on Uncosted Balances for Fiscal Year Ended September 30, 2014* (Washington, D.C.: July 2016).

⁶⁹[GAO-14-704G](#).

⁷⁰[GAO-14-704G](#).

DOE-wide 40 percent threshold for grants and cooperative agreements and the NNSA-specific 45 percent threshold for weapon modernization programs. According to DOE and NNSA officials, the percentage target thresholds were selected based on historical averages, such as the average execution period for most grants being 3 to 5 years, or 55 percent of costs for LEPs being procurement related. However, the officials could not provide any analysis or documentation to support these conclusions, in part because of staff turnover since the agencies selected these percentage targets as the thresholds. Moreover, in the document that NNSA provided to us that discussed the need to increase the threshold for LEPs and similar weapon modernization programs, NNSA did not identify, or present analysis to support, a 45 percent target threshold. Rather, the NNSA analysis concluded that weapon modernization programs should not be subject to a specific threshold and should be evaluated on a case-by-case basis like line-item construction projects.

According to *Standards for Internal Control in the Federal Government*, management should design control activities to achieve objectives and respond to risks.⁷¹ Such controls are aimed at validating the propriety and integrity of both the entity and individual indicators. Without documenting well-justified bases for DOE's and NNSA's newest thresholds, the agencies do not have clear evidence to support the established thresholds as appropriate indicators for determining whether the amount of excess uncosted balances for these costing categories is adequate, too small, or too large.

- 3. No periodic reviews of thresholds.** DOE and NNSA have not conducted periodic reviews of the thresholds to ensure that the percentage targets remain appropriate, current, and accurate. According to DOE officials, DOE last conducted a department-wide review of the thresholds in 2010. The review, led by a working group composed of DOE and NNSA staff, examined the costing categories and associated thresholds to determine if they remained acceptable and, if not, to prepare a proposal detailing any suggested changes and the rationale behind the suggestions. While the working group considered potential changes, such as increasing the 13 percent target threshold for contractor operating costs in response to the effects of continuing resolutions, DOE officials told us that the working group ultimately determined, but did not formally document, that the thresholds were still correct and did not need to be changed.

However, we found that the original department-wide thresholds that DOE and NNSA use do not appear to reflect the current budget environment. According to DOE documents, when the department established the 13, 17, and 50 percent targets in fiscal year 1996, it did so under the assumption of on-time fiscal year appropriations cycles and that there would be no significant delays in the release of full funding (e.g., delays caused by a continuing resolution). This assumption is not valid because it does not reflect the current budget environment. Specifically, our analysis shows that for the period from fiscal year 1996 through fiscal year 2010, when DOE officials said they last reviewed the thresholds, there was an average of three continuing resolutions affecting the certainty of DOE's funding each fiscal year, with an average total duration of about 58 days. During the period from fiscal year 2011 through fiscal year 2021, the average number of continuing resolutions stayed the same, but the average total duration of the

⁷¹GAO-14-704G. Control activities, which are the policies, procedures, techniques, and mechanisms that enforce management's directives to achieve the entity's objectives and address related risks, help management fulfill responsibilities and address identified risk responses in the internal control system. Other examples of common categories of control activities include the establishment and review of performance measures and indicators and appropriate documentation of transactions and internal control.

continuing resolutions increased to 114 days. These durations are much longer than the assumptions that DOE used when developing its thresholds.

In addition, DOE officials told us that while DOE has not conducted a department-wide review since 2010, Office of the Chief Financial Officer and NNSA staff held subsequent discussions about, and conducted additional analysis related to, changing the thresholds applied to NNSA's LEPs and other weapon modernization programs. These subsequent discussions resulted in NNSA adopting the 45 percent threshold for these programs in early 2016. However, an NNSA official told us that NNSA has not reviewed the 45 percent threshold since its establishment to ensure that it remains appropriate.

According to *Standards for Internal Control in the Federal Government*, effective implementation of control activities includes periodic management review of policies, procedures, and related control activities for continued relevance and effectiveness in achieving the entity's objectives or addressing related risks.⁷² Management uses quality information to make informed decisions and evaluate the entity's performance in achieving key objectives and addressing risks. By not conducting periodic reviews of the DOE-wide thresholds in more than 10 years or the NNSA-specific threshold in more than 5 years, DOE and NNSA cannot ensure that the percentage targets they use continue to provide quality information about EM and NNSA uncosted balances that is appropriate, current, and accurate. Further, in light of substantial changes to the budget environment in which EM and NNSA operate—changes not reflected in DOE's and NNSA's thresholds—EM and NNSA cannot be sure whether the amounts of carryover balances proposed for their programs' use are appropriate or exceed programmatic requirements and could, therefore, be available to reduce future budgets.

4. **No documented process to guide assessments of, and justifications for, excess uncosted balances.** EM and NNSA officials told us that they assess excess uncosted balances and justifications for why the balances exceeded their thresholds. However, we found that DOE does not have a documented process to guide such assessments within EM and NNSA.⁷³ For example, and as noted earlier, DOE documents state that uncosted balances in excess of the thresholds should receive more intensive review. In particular, the documents state that the excess balances require a more detailed explanation or justification to determine their causes. Nonetheless, there is no guidance on how staff should assess excess balances and justifications or make and document determinations about the sufficiency of justifications. Moreover, officials from DOE's Office of the Chief Financial Officer told us that their office did not have written guidelines for assessing justifications provided for PPAs with excess uncosted balances.

As previously noted, *Standards for Internal Control in the Federal Government* state that, in addition to management developing and maintaining documentation of its internal control system, effective documentation assists in management's design of internal control by establishing and communicating to personnel the who, what, when, where,

⁷²GAO-14-704G.

⁷³We have previously reported that uncosted balances need to be analyzed as part of the budget formulation process to determine the extent to which these balances may be used to reduce future appropriation requests. In particular, in a March 1992 report, we found that DOE did not have an effective system in place to ensure that uncosted obligations were analyzed as part of its budget formulation process. GAO, *Energy Management: Systematic Analysis of DOE's Uncosted Obligations Is Needed*, GAO/T-RCED-92-41 (Washington, D.C.: Mar. 24, 1992).

and why of internal control execution.⁷⁴ Without documented guidance describing the process that EM and NNSA staff should use to assess excess uncosted balances and their justifications, it remains unclear how and whether EM and NNSA are making consistent determinations about the sufficiency of the justifications and where they document these decisions.

- 5. No guidance detailing how staff should incorporate information on excess uncosted balances into the budget formulation process.** In our review of DOE's policies and responsibilities for budget formulation, execution, and funds control, and NNSA's related supplemental policy directive, we did not find clear requirements or guidance for how EM and NNSA staff should consider excess uncosted balances when preparing future budgets.⁷⁵ EM and NNSA officials told us that they review excess uncosted balances at fiscal year-end and use the information when developing future budget requests. For example, NNSA officials explained that when formulating the fiscal year 2023 budget request, NNSA analyzed carryover balances for each PPA. Specifically, the analysis considered factors such as variance from spend plans, rates of execution, amounts of carryover projected to be over applicable thresholds, impacts from COVID-19, and encumbrances for DNN programs. The officials told us that this analysis informed NNSA's fiscal year 2023 request and reflected the use of prior-year carryover. However, EM and NNSA officials said that they generally do not formally document their considerations of excess uncosted balances as part of their budget formulation processes.

When reviewing a preliminary draft of this report, NNSA officials indicated that NNSA was developing programming guidance for the fiscal year 2024 planning, programming, budgeting, and evaluation process. This guidance could formalize and document how staff may consider balances and potential offsets when formulating the fiscal year 2024 budget request.⁷⁶ The NNSA officials also said that the process might be documented in the programming guidance issued by the NNSA Administrator and could require that NNSA staff provide information about the planned use of prior-year balances for their respective appropriations by PPA when developing the 5-year Future-Years Nuclear Security Program plan to ensure that proposed budget scenarios are executable.⁷⁷ The officials added that each program office could be required to justify any planned carryover balances above the applicable thresholds. However, the DOE and NNSA officials we met with indicated that this effort would be specific to PPAs within NNSA's Weapons Activities appropriation account. They said that EM and other DOE elements

⁷⁴[GAO-14-704G](#).

⁷⁵See Department of Energy, *Budget Planning, Formulation, Execution, and Departmental Performance Management*, DOE Order 130.1A; and National Nuclear Security Administration, *Planning, Programming, Budgeting, and Evaluation (PPBE) Process*, NAP 130.1B.

⁷⁶NNSA's planning, programming, budgeting, and evaluation process provides a framework for the agency to plan, prioritize, fund, and evaluate its program activities. The process has four major phases for each budget cycle: planning, programming, budgeting, and evaluation (which includes execution and performance). The phases appear to be sequential, but the process is continuous and concurrent because of the amount of time required to develop priorities and review resource requirements, with at least two phases ongoing at any time.

⁷⁷NNSA's annual justification of the President's budget provides program information and budget estimates for the next 5 years and is called the Future-Years Nuclear Security Program. The budget estimates in this 5-year plan reflect funding levels approved by OMB.

were not undertaking a similar effort, nor was NNSA, for its other appropriation accounts, such as DNN.

Similar to the discussion above, *Standards for Internal Control in the Federal Government* state that some level of documentation is necessary so that the components of internal control can be designed, implemented, and operated effectively.⁷⁸ Documentation also provides a means to retain organizational knowledge and mitigate the risk of having that knowledge limited to a few personnel and provides a means to communicate that knowledge, as needed, to external parties, such as external auditors. Without documented guidance, such as in DOE Order 130.1A or other relevant programming guidance documents, that clearly describes how EM and NNSA staff should incorporate information on excess uncosted balances into the annual planning, programming, budgeting, and evaluation process, DOE and NNSA cannot be assured that EM's and NNSA's budget requests consistently account for excess uncosted balances across PPAs and represent an optimal level of carryover funding needed to effectively and efficiently carry out operations.

Conclusions

Agencies may carry over unobligated and uncosted balances to a new fiscal year for a number of reasons. However, we identified several limitations to the thresholds and guidance that EM and NNSA use to manage their excess uncosted balances, which totaled about \$14.1 billion at the end of fiscal year 2021. These limitations raise questions about how consistently EM and NNSA apply the thresholds and assess the justifications for the balances, and how, if at all, the agencies factor the excess balances into their future-year budget requests.

For example, DOE and NNSA continue to use their three original percentage target thresholds (13, 17, and 50 percent), established in the late 1990s, to identify excess uncosted carryover. DOE has since implemented a 40 percent threshold for grants and cooperative agreements and a 45 percent threshold for NNSA's weapon modernization programs. However, neither DOE nor NNSA have clearly documented guidance or requirements about how the thresholds should be applied to uncosted balances to assess whether excess carryover is appropriate. We found that this absence of clear documentation has led to inconsistent application of the thresholds and uncertainty about how to manage excess uncosted balances with respect to the thresholds. Without documentation that clearly details how to apply the thresholds—including in cases when activities do not need to be subjected to a threshold—and that better defines the purpose of the percentage targets, EM and NNSA could continue to use the thresholds inconsistently or in ways that reinforce behaviors that make them less effective as a tool to assess uncosted carryover.

Similarly, DOE and NNSA have not documented well-justified bases for two newer percentage target thresholds. Because DOE and NNSA did not identify or present analysis to support these percentage targets, it is unclear whether the thresholds appropriately indicate whether excess uncosted balances are adequate, too small, or too large. By not documenting well-justified bases for these two thresholds, the agencies do not have clear evidence that they allow for reasonable determinations about the amounts of any uncosted balances.

Moreover, DOE and NNSA do not conduct periodic reviews of their thresholds to determine whether the percentage targets remain appropriate, current, and accurate. As a result, EM and

⁷⁸[GAO-14-704G](#).

NNSA continue to use percentage target thresholds established in the late 1990s and that likely are now less useful as reasonable benchmarks for gauging uncosted carryover. For example, we found that the thresholds do not appear to reflect the current budget environment, with the average total duration of continuing resolutions affecting the certainty of funding for DOE and NNSA having increased substantially since DOE last reviewed the thresholds in 2010, from 58 to 114 days per fiscal year. By not reassessing the thresholds, and either revalidating or revising them as appropriate, DOE and NNSA cannot ensure that the thresholds represent appropriate benchmarks for assessing uncosted carryover.

DOE has also not documented a process to guide assessments of, and justifications for, excess uncosted balances. Without documented guidance that details the process for how EM and NNSA staff should assess PPAs' excess uncosted balances and their justifications, it remains unclear how and whether EM and NNSA are making—and documenting—consistent determinations about the sufficiency of the justifications.

In addition, DOE and NNSA do not have documented guidance detailing how EM and NNSA staff should incorporate information on excess uncosted balances when preparing future budgets. Without documented guidance, such as in DOE Order 130.1A or other relevant programming guidance documents, that clearly documents how to incorporate information on excess uncosted balances into the annual planning, programming, budgeting, and evaluation process, DOE and NNSA cannot be assured that EM's and NNSA's budget requests consistently account for excess uncosted balances across PPAs and provide for optimal levels of funding that will be used effectively and efficiently.

Recommendations for Executive Action

We are making a total of seven recommendations, including five to DOE and two to NNSA:

The DOE Chief Financial Officer should document DOE's and NNSA's percentage target thresholds to more clearly describe how the thresholds should be applied to uncosted balances and better define the purpose of the percentage targets to ensure that EM, NNSA, and other departmental elements apply the thresholds consistently. (Recommendation 1)

The DOE Chief Financial Officer, with input from other departmental elements, should either document the basis of support for the 40 percent target threshold that DOE uses to identify and assess uncosted carryover balances in EM and NNSA programs related to the DOE-wide costing category for grants and cooperative agreements or revise the threshold, and then document the methodology and analysis supporting the department's decisions. (Recommendation 2)

The NNSA Associate Administrator for Management and Budget, with input from pertinent NNSA program offices, should either document the basis of support for the 45 percent threshold that NNSA uses to identify and assess uncosted carryover balances related to the NNSA-specific costing category for weapon modernization programs or revise the threshold, and document the methodology and analysis supporting the agency's decisions. (Recommendation 3)

The DOE Chief Financial Officer, with input from other departmental elements, should periodically reassess the four target thresholds that DOE uses to identify and assess uncosted carryover balances in EM and NNSA programs to ensure that they reflect the current budgetary environment, including with respect to any assumptions made about the duration of continuing resolutions, and either revalidate or revise the thresholds. (Recommendation 4)

The NNSA Associate Administrator for Management and Budget, with input from relevant NNSA program offices, should periodically reassess the target threshold that NNSA uses to identify and assess uncosted carryover balances related to its weapon modernization programs to ensure that it reflects the current budgetary environment, including with respect to any assumptions made about the duration of continuing resolutions, and either revalidate or revise the threshold. (Recommendation 5)

The DOE Chief Financial Officer should develop guidance that clearly documents the process that DOE and NNSA staff should use when assessing excess uncosted balances and the sufficiency of their justifications, including describing how to make and document determinations about the sufficiency of the justifications. (Recommendation 6)

The DOE Chief Financial Officer should develop guidance, such as in DOE Order 130.1A, or other relevant programming guidance documents, that clearly documents the steps that DOE and NNSA should take in the annual planning, programming, budgeting, and evaluation process to evaluate and consider excess uncosted balances when developing future funding requests. (Recommendation 7)

Enclosure I: Scope and Methodology

Enclosure II: Fiscal Year 2021 Budget Structures for the Office of Environmental Management and National Nuclear Security Administration

Enclosure III: Examples of Office of Environmental Management and National Nuclear Security Administration Uncosted Carryover Balances That Exceeded Thresholds

Enclosure IV: Comments from the Department of Energy

Agency Comments and Our Evaluation

We provided a draft of this correspondence to the Secretaries of Energy, Defense, Homeland Security, and State; and the Administrator of the National Nuclear Security Administration for review and comment. Neither DHS, DOD, nor State provided comments. DOE provided written comments on its and NNSA's behalf. In DOE's written comments, which are reproduced in enclosure IV, DOE and NNSA concurred with our recommendations and described actions they are taking or considering. DOE also provided a technical comment, which we incorporated in our correspondence as appropriate.

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We are sending copies of this correspondence to the appropriate congressional committees, the Secretary of Energy; the Administrator of NNSA; the Secretaries of Defense, Homeland Security, and State; and other interested parties. In addition, the correspondence is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff members have any questions about this correspondence, please contact me at (202) 512-3841 or bawdena@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this correspondence. Major contributors to this correspondence were William Hoehn (Assistant Director), Kevin Remondini (Analyst-in-charge), Antoinette Capaccio, Tara Congdon, Richard Geiger, Cindy Gilbert, Thomas McCabe, Phillip McIntyre, Donna Morgan, Emily Pinto, Will Reeves, and Dan C. Royer.

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

Allison Bawden
Director, Natural Resources and Environment

List of Committees

The Honorable Jack Reed

Chairman

The Honorable James M. Inhofe

Ranking Member

Committee on Armed Services

United States Senate

The Honorable Dianne Feinstein

Chair

The Honorable John Kennedy

Ranking Member

Subcommittee on Energy and Water Development

Committee on Appropriations

United States Senate

The Honorable Adam Smith

Chairman

The Honorable Mike Rogers

Ranking Member

Committee on Armed Services

House of Representatives

The Honorable Marcy Kaptur

Chairwoman

The Honorable Mike Simpson

Ranking Member

Subcommittee on Energy and Water Development, and Related Agencies

Committee on Appropriations

House of Representatives

Enclosure I: Scope and Methodology

This correspondence examines five areas associated with the Department of Energy's (DOE) Office of Environmental Management (EM) and National Nuclear Security Administration (NNSA) carryover balances. These areas are (1) EM's and NNSA's budget structure and budget execution process; (2) amounts and ages of EM and NNSA carryover balances at the end of fiscal year 2021; (3) EM and NNSA practices for identifying uncosted balances that warrant greater scrutiny and the amounts of these balances at the end of fiscal year 2021; (4) drivers of EM and NNSA excess uncosted balances and actions they take to manage these balances; and (5) limitations to the thresholds and guidance that EM and NNSA use to manage excess uncosted balances.

To describe EM's and NNSA's budget structure, we reviewed how congressional appropriations acts and associated committee direction structured the programs, projects, and activities (PPA) for fiscal year 2021. We also examined EM and NNSA annual justifications of the President's budget for fiscal year 2021 to obtain additional information about EM's and NNSA's budget structure. We interviewed DOE and NNSA budget officials about how EM and NNSA implemented their PPA structures for fiscal year 2021.

To determine the steps in EM's and NNSA's processes for obligating and expending appropriated funds, we reviewed DOE budget execution and financial management requirements.⁷⁹ We similarly reviewed documentation outlining the federal budget process.⁸⁰ We interviewed DOE budget officials about the EM and NNSA funding process and obtained additional information related to the processes that EM and NNSA use to obligate and cost appropriated funds. Finally, we analyzed appropriations spanning fiscal years 1990 through 2021 to determine the number of continuing resolutions that have affected DOE.

To identify and report on the amounts and ages of EM and NNSA carryover balances at the end of fiscal year 2021, we obtained and analyzed the most recent financial data available for each EM appropriation account and for NNSA's Weapons Activities and Defense Nuclear Nonproliferation (DNN) appropriation accounts. These accounts represent the two largest appropriation accounts within NNSA's appropriations that were relevant to our review. Specifically, we obtained data on EM's and NNSA's unobligated balances for fiscal years 2017 through 2021 from DOE's Office of the Chief Financial Officer. We analyzed these data and summed the unobligated balances by EM and NNSA appropriation. We used these data to tabulate total unobligated balances, by appropriation year, for individual EM and NNSA appropriation accounts in order to determine the total amount of prior-year unobligated balances and identify any balances more than 5 years old.

We also obtained uncosted balance data from EM and NNSA for fiscal years 2017 through 2021. We used the year-end data for fiscal year 2021 to calculate the total uncosted balances for each EM appropriation account and NNSA's Weapons Activities and DNN appropriation accounts. We then summed the unobligated and uncosted balances, by appropriation account,

⁷⁹In particular, we reviewed Department of Energy, *DOE Financial Management Handbook* (Washington, D.C.: October 2021); *Budget Planning, Formulation, Execution, and Departmental Performance Management*, DOE Order 130.1A (Washington, D.C.: Jan. 7, 2021); *Department of Energy Budget Execution—Funds Distribution and Control Manual*, DOE Manual 135.1-1A (Washington, D.C.: Jan. 9, 2006); and National Nuclear Security Administration, *Planning, Programming, Budgeting, and Evaluation (PPBE) Process*, NAP 130.1B (Washington, D.C.: May 25, 2021).

⁸⁰For example, see GAO, *Principles of Federal Appropriations Law*, 4th ed., 2016 rev., ch. 2, [GAO-16-464SP](#) (Washington, D.C.: March 2016), and *Principles of Federal Appropriations Law*, 3rd ed., vol. I, [GAO-04-261SP](#) (Washington, D.C.: January 2004).

to identify EM's and NNSA's total carryover balances as of the end of fiscal year 2021. In addition, we calculated the total amount of uncosted balances for EM and NNSA operating activities and line-item construction projects as of the end of fiscal year 2021. Further, we calculated EM's and NNSA's unobligated and uncosted balances, by appropriation account, for fiscal years 2017 through 2020 for the purposes of analyzing EM's and NNSA's total carryover balances over the 5-year period from fiscal year 2017 through fiscal year 2021. We also reviewed EM's and NNSA's enacted budget authority for that same 5-year period. Because NNSA's DNN also measures financial performance in terms of the percentage of funds that have been costed and encumbered, we also analyzed the unencumbered uncosted balances of individual DNN PPAs.⁸¹

We conducted a reliability assessment of the EM and NNSA financial data provided to us. Specifically, we interviewed knowledgeable officials concerning the data and the system that produced them, to include issues such as data entry, access, quality control procedures, and the accuracy and completeness of the data. We also performed electronic testing of the data received to ensure completeness and accuracy, such as by examining the data for missing information and replicating calculations within the data received. In addition, we reviewed external auditor reports of DOE's consolidated financial statements for fiscal years 2017 through 2021 to identify any potential material weaknesses that could affect the reliability of the data. We did not identify any material weaknesses in those reports that would raise questions about the reliability of the data during the time frame of our review. We determined that, overall, the data were sufficiently reliable for the purposes of reporting on EM's and NNSA's total carryover balances, including specific EM and NNSA uncosted balances found to be in excess of the department's thresholds.

To examine EM and NNSA practices for identifying uncosted balances that warrant greater scrutiny and the amounts of these balances at the end of fiscal year 2021, we reviewed relevant DOE and NNSA budget execution and financial management requirements and guidance pertaining to uncosted balances. We also reviewed the Office of Management and Budget's Circular No. A-11, *Preparation, Submission, and Execution of the Budget*, to identify general instructions and policy guidance pertaining to carryover balances.⁸² In addition, to determine EM's and NNSA's practices for identifying excess uncosted balances that warrant further scrutiny, we reviewed DOE uncosted balance reports previously issued to Congress that provide details about the department's approach to using targets, or "thresholds,"⁸³ for evaluating the extent to which the uncosted balances are appropriate.⁸⁴ We also interviewed

⁸¹An encumbered uncosted balance represents the amount of funds that have been obligated by DOE to a contract and have been reserved by the contractor for a specific purpose, such as a subcontract. On the other hand, an unencumbered uncosted balance represents the portion of the uncosted obligation balance that has not yet been encumbered by the contractor.

⁸²Office of Management and Budget Circular No. A-11, *Preparation, Submission, and Execution of the Budget* (Washington, D.C.: Aug. 6, 2021).

⁸³According to DOE documents, a target threshold is defined as an analytical reference point (i.e., specific dollar value or percentage of funds available) beyond which uncosted obligation balances should be given greater scrutiny. The DOE documents further state that balances in excess of these thresholds receive more intensive review and require a more detailed explanation or justification to determine their cause and to identify the expectation for full costing.

⁸⁴For example, see Department of Energy, *Report on Uncosted Balances for Fiscal Year Ended September 30, 2014* (Washington, D.C.: July 2016); and *Report on Uncosted Balances for Fiscal Year Ended September 30, 2007* (Washington, D.C.: August 2008). These reports discuss the approach and underlying rationale and assumptions for the department's original percentage target thresholds—13 percent for contractor operating costs; 17 percent for

DOE and NNSA officials to discuss the threshold that the department established in approximately 2008 for grants, cooperative research and development agreements, and other cooperative agreements. Further, we reviewed an NNSA document and interviewed NNSA officials about the threshold that NNSA established in early 2016 specifically for its weapon modernization programs, particularly the life extension programs (LEP).⁸⁵

Moreover, we analyzed the EM and NNSA uncosted balances data to identify those operating activities with uncosted balances in excess of the thresholds at the end of fiscal year 2021.⁸⁶ Specifically, we calculated the EM and NNSA operating activities' year-end uncosted balances and compared them to the operating activities' combined threshold dollar amount, which consists of the total threshold dollar amounts for each category as calculated by the established percentage targets. To better understand the excess uncosted balances, we identified a nongeneralizable sample of EM and NNSA operating activities to review further by selecting those activities with balances that exceeded DOE's thresholds by \$15 million or more.⁸⁷ We then examined these EM and NNSA operating activities over the 5-year period from fiscal year 2017 through fiscal year 2021 to determine whether the activities previously carried over uncosted balances in excess of DOE's thresholds.

To identify the drivers of EM and NNSA excess uncosted balances, we reviewed EM and NNSA data and interviewed knowledgeable agency officials. To identify what actions EM and NNSA are taking to manage excess uncosted balances, we examined relevant DOE and NNSA budget execution and financial management requirements and guidance and interviewed EM and NNSA officials knowledgeable about how unobligated and uncosted balances are tracked and applied in future-year budget development. To understand how EM and NNSA practices compare to how other federal agencies manage carryover balances, we selected a nongeneralizable sample of three agencies—the Departments of Defense (DOD), Homeland Security (DHS), and State—and reviewed documents and interviewed agency officials about the practices used by these agencies to manage carryover balances. To carry out this analysis, we identified seven relevant agencies using the following criteria: agency size, amount of “no-year” funding received, and the extent to which the agency conducted work or activities similar to EM and NNSA. Of the seven agencies that met our criteria, we then selected DHS, DOD, and State based on the amounts of multi- and no-year funding authority that the agency manages and the type of activities that the agency carried out, including long-lead procurements, major

federal operating costs; and 50 percent for capital equipment, general plant projects, and accelerator improvement projects—that were established in fiscal year 1996.

⁸⁵NNSA weapon modernization programs include not only LEPs but also weapon alterations and modifications. Much like an LEP, a weapon alteration replaces or refurbishes components to ensure that the weapon can continue to meet military requirements. However, an alteration generally refurbishes fewer components than an LEP and does not specifically extend a weapon's operational lifetime. More recently, NNSA has begun weapon modernization programs constituting a broader scope than LEPs and, in one case, is managing a program as a new acquisition.

⁸⁶We did not include the uncosted balances for EM and NNSA line-item construction projects in this analysis because, as DOE documents state, line-item construction projects are not subject to a specific threshold and are evaluated on a case-by-case basis.

⁸⁷To better understand EM and NNSA operating activities with uncosted balances in excess of applicable thresholds at the end of fiscal year 2021, we identified a nongeneralizable sample of 50 EM and NNSA operating activities to review further by selecting those activities with balances that exceeded DOE's thresholds by \$15 million or more. We selected the \$15 million benchmark based on our review of EM's and NNSA's data, in part because we judged that it represented a natural breakpoint that described the majority of the uncosted balances that exceeded the applicable thresholds. As these 50 EM and NNSA operating activities are a nongeneralizable sample, our results cannot be generalized to all EM and NNSA operating activities.

acquisitions, construction projects, and international efforts. Our selection of the three agencies also included a consideration of time and resource constraints. Findings from this report cannot be generalized to other agencies that we did not select and review.

To identify limitations to the thresholds and guidance that EM and NNSA use to manage excess uncosted balances, we reviewed the available methodology and assumptions behind thresholds to understand how DOE and NNSA arrived at the percentage targets being used. We also identified when the final appropriations for DOE and NNSA were enacted over the period subsequent to when DOE last conducted a department-wide review of the thresholds in 2010. In addition, to determine what limitations, if any, exist in the guidance used by EM and NNSA to manage excess uncosted balances, we reviewed the guidance documents that EM and NNSA use to manage excess uncosted balances, such as with respect to assessing excess uncosted balances and making determinations about the sufficiency of the balances.⁸⁸ We also interviewed EM and NNSA officials who are responsible for managing excess uncosted balances for DOE about the thresholds and guidance.

We determined that multiple components of internal control found in *Standards for Internal Control in the Federal Government* were significant to reviewing the practices used by EM and NNSA to identify and manage carryover balances, particularly excess uncosted balances.⁸⁹ Because we found that effective documentation was significant to address questions about how EM and NNSA use thresholds to manage its carryover balances and the extent to which carryover balance information is used to inform future budget requests, we assessed the extent to which the practices used by EM and NNSA to identify and manage uncosted carryover balances were documented. In addition, because we found that control activities should be designed to achieve objectives and respond to risks, we examined the rationale used to support EM and NNSA's newest thresholds. Finally, because we determined that conducting periodic reviews of control activities was significant to how EM and NNSA identify excess uncosted balances, we assessed the extent to which DOE and NNSA have periodically reviewed established thresholds.

We conducted this performance audit from September 2020 to July 2022 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.

⁸⁸For example, we reviewed DOE's financial management handbook, DOE Order 130.1A, DOE Manual 135.1-1A, and NNSA Policy 130.1B.

⁸⁹GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014).

Enclosure II: Fiscal Year 2021 Budget Structures for the Office of Environmental Management and National Nuclear Security Administration

The Department of Energy’s (DOE) Office of Environmental Management (EM) has three appropriation accounts: Defense Environmental Cleanup, Non-Defense Environmental Cleanup, and Uranium Enrichment Decontamination and Decommissioning Fund. Within the three appropriation accounts, EM managed 53 programs, projects, and activities (PPA) in fiscal year 2021.⁹⁰

PPAs funded in EM’s Defense Environmental Cleanup appropriation account are focused on the environmental cleanup of multiple defense nuclear facilities at sites across the country. Table 12 lists the PPAs in EM’s Defense Environmental Cleanup appropriation account for fiscal year 2021.

Table 12: Programs, Projects, and Activities of the Office of Environmental Management’s Defense Environmental Cleanup Appropriation Account, Fiscal Year 2021

Closure sites administration	Closure sites administration information
Richland	<ul style="list-style-type: none"> • River corridor and other cleanup operations • Central plateau remediation • Richland community and regulatory support • Waste encapsulation and storage facility modifications and capsule storage
Office of River Protection	<ul style="list-style-type: none"> • Waste treatment and immobilization plant commissioning • Radioactive liquid tank waste stabilization and disposition • High-level waste facility • Waste treatment and immobilization plant—LBL/Direct feed low-activity waste
Idaho National Laboratory	<ul style="list-style-type: none"> • Idaho cleanup and waste disposition • Idaho community and regulatory support
National Nuclear Security Administration sites	<ul style="list-style-type: none"> • Lawrence Livermore National Laboratory • Separations process research unit • Nevada • Sandia National Laboratory • Los Alamos National Laboratory • Lawrence Livermore National Laboratory excess facilities decontamination and decommissioning

⁹⁰A PPA is an element within a budget account. For annually appropriated accounts, the Office of Management and Budget (OMB) and agencies identify a PPA by reference to congressional committee reports and budget justifications. For permanent appropriations, OMB and agencies identify a PPA by the program and financing schedules that the President provides in the “Detailed Budget Estimates” in the budget submission for the relevant fiscal year. Program activity structures are intended to provide a meaningful representation of the operations financed by a specific budget account—usually by project, activity, or organization. GAO, *A Glossary of Terms Used in the Federal Budget Process*, [GAO-05-734SP](#) (Washington, D.C.: September 2005).

Closure sites administration	Closure sites administration information
Oak Ridge Reservation	<ul style="list-style-type: none"> • Oak Ridge nuclear facility decontamination and decommissioning • U233 disposition program • Oak Ridge cleanup and disposition • Outfall 200 mercury treatment facility • On-site waste disposal facility • Oak Ridge community and regulatory support • Oak Ridge technology development and deployment
Savannah River Site	<ul style="list-style-type: none"> • Savannah River Site risk management operations • Emergency operations center replacement, Savannah River • Savannah River community and regulatory support • Savannah River radioactive liquid tank waste stabilization and disposition • Saltstone disposal unit #7, Savannah River Site • Saltstone disposal unit #10, 11, 12 • Savannah River security system replacement • Saltstone disposal unit #8/9 • Advanced manufacturing collaborative facility
Waste Isolation Pilot Plant	<ul style="list-style-type: none"> • Waste Isolation Pilot Plant • Safety significant confinement ventilation system, Waste Isolation Pilot Plant • Utility shaft, Waste Isolation Pilot Plant • Hoisting capability project
Program direction	
Program support	
Safeguards and security	
Technology development	

Source: GAO analysis of the explanatory statement for the Energy and Water Development and Related Agencies Appropriations Act, 2021, which was enacted as Division D of the Consolidated Appropriations Act, 2021. | GAO-22-104541

PPAs funded in EM's Non-Defense Environmental Cleanup appropriation account are focused on the environmental cleanup of multiple sites across the country that comprise the former nuclear weapons development and government-sponsored nuclear energy research complex. Table 13 lists the PPAs in EM's Non-Defense Environmental Cleanup appropriation account for fiscal year 2021.

Table 13: Programs, Projects, and Activities of the Office of Environmental Management's Non-Defense Environmental Cleanup Appropriation Account, Fiscal Year 2021

Category
Fast flux test reactor facility
Gaseous diffusion plants
Small sites
West Valley demonstration project
Management and storage of elemental mercury

Source: GAO analysis of the explanatory statement for the Energy and Water Development and Related Agencies Appropriations Act, 2021, which was enacted as Division D of the Consolidated Appropriations Act, 2021. | GAO-22-104541

PPAs funded in EM's Uranium Enrichment Decontamination and Decommissioning Fund are focused on completing cleanup at DOE's three former uranium enrichment sites—also referred to as gaseous diffusion plants because they relied on gaseous diffusion to enrich uranium.⁹¹ Table 14 lists the PPAs in EM's Uranium Enrichment Decontamination and Decommissioning Fund appropriation account for fiscal year 2021.

Table 14: Programs, Projects, and Activities of the Office of Environmental Management's Uranium Enrichment Decontamination and Decommissioning Fund Appropriation Account, Fiscal Year 2021

Category
Oak Ridge
Nuclear facility decontamination and decommissioning, Paducah
Portsmouth: Nuclear facility decontamination and decommissioning, Portsmouth
Portsmouth: On-site waste disposal facility, Portsmouth
Portsmouth: On-site waste disposal facility (cell line 2 and 3)
Pension and community and regulatory support
Title X uranium/thorium reimbursement program

Source: GAO analysis of the explanatory statement for the Energy and Water Development and Related Agencies Appropriations Act, 2021, which was enacted as Division D of the Consolidated Appropriations Act, 2021. | GAO-22-104541

NNSA's budget structure for fiscal year 2021 included four appropriation accounts: (1) Weapons Activities, (2) Defense Nuclear Nonproliferation (DNN), (3) Naval Reactors, and (4) Federal Salaries and Expenses. For the purposes of our review, we focused on the two largest appropriation accounts: Weapons Activities and DNN.⁹² Within the Weapons Activities and DNN appropriation accounts, NNSA managed 85 PPAs in fiscal year 2021.

PPAs funded in NNSA's Weapons Activities appropriation account support the nation's current and future defense posture and necessary nationwide infrastructure for nuclear weapons science, technology, and engineering capabilities. Moreover, the Weapons Activities appropriation account provides for the maintenance and refurbishment of nuclear weapons to continue sustained confidence in their safety, reliability, and performance; investment in scientific, engineering, and manufacturing capabilities for certification of the enduring nuclear weapons stockpile; and manufacture of nuclear weapon components. Table 15 lists the PPAs in NNSA's Weapons Activities appropriation account for fiscal year 2021.

⁹¹The three former uranium enrichment sites, which were built starting in the 1940s, are located near Oak Ridge, Tennessee; Paducah, Kentucky; and Portsmouth, Ohio. The Energy Policy Act of 1992 established the Uranium Enrichment Decontamination and Decommissioning Fund to pay for the cleanup at these sites. Energy Policy Act of 1992, Pub. L. No. 102-486, § 1101, 106 Stat. 2776, 2953-2955 (1992) (codified as amended at 42 U.S.C. §§ 2297g-2297g-4).

⁹²We did not include NNSA's Federal Salaries and Expenses and Naval Reactors accounts as part of this analysis because NNSA has only 2-year funding authority for the Federal Salaries and Expenses account and because activities conducted with funds from the Naval Reactors account are carried out jointly with the Navy.

Table 15: Programs, Projects, and Activities of the National Nuclear Security Administration’s Weapons Activities Appropriation Account, Fiscal Year 2021

Category	Category information
Stockpile management	<ul style="list-style-type: none"> • Stockpile major modernization: <ul style="list-style-type: none"> ○ B61 life extension program ○ W88 alteration program ○ W80-4 life extension program ○ W87-1 modification program ○ W93 • Stockpile sustainment • Weapons dismantlement and disposition • Production operations
Production modernization	<ul style="list-style-type: none"> • Primary capability modernization: <ul style="list-style-type: none"> ○ Los Alamos plutonium operations ○ Plutonium pit production project, Los Alamos National Laboratory ○ Savannah River plutonium operations ○ Savannah River plutonium processing facility, Savannah River Site ○ Enterprise plutonium support ○ High explosives and energetics ○ High explosives science and engineering facility, other project costs • Secondary capability modernization: <ul style="list-style-type: none"> ○ Uranium sustainment ○ Process technology development ○ Depleted uranium modernization ○ Lithium modernization • Tritium and domestic uranium enrichment: <ul style="list-style-type: none"> ○ Tritium sustainment and modernization ○ Domestic uranium enrichment ○ Highly enriched uranium downblend ○ Uranium reserve • Nonnuclear capability modernization
Stockpile research, technology, and engineering	<ul style="list-style-type: none"> • Assessment science: <ul style="list-style-type: none"> ○ Primary assessment technologies ○ Dynamic materials properties ○ Advanced diagnostics ○ Secondary assessment technologies ○ Enhanced capabilities for subcritical experiments

Category	Category information
Stockpile research, technology, and engineering	<ul style="list-style-type: none"> • Hydrodynamic and subcritical execution support • Engineering and integrated assessments: <ul style="list-style-type: none"> ○ Archiving and support ○ Delivery environments ○ Weapons survivability ○ Aging and lifetimes ○ Stockpile responsiveness ○ Advanced certification and qualification • Inertial confinement fusion • Advanced simulation and computing • Weapon technology and manufacturing development: <ul style="list-style-type: none"> ○ Surety technology ○ Weapon technology development ○ Advanced manufacturing development • Academic programs
Infrastructure and operations	<ul style="list-style-type: none"> • Operations of facilities • Safety and environmental operations • Maintenance and repair of facilities • Recapitalization: <ul style="list-style-type: none"> ○ Infrastructure and safety ○ Capability-based investments ○ Planning for programmatic construction (precritical decision-1) • Infrastructure and operations construction: <ul style="list-style-type: none"> ○ Uranium processing facility, Y-12 National Security Complex (Y-12) ○ Transuranic liquid waste facility, Los Alamos National Laboratory ○ High explosives science and engineering facility, Pantex ○ TA-55 reinvestment project III, Los Alamos National Laboratory ○ U1a complex enhancements project ○ Exascale computing facility modernization project, Lawrence Livermore National Laboratory ○ Tritium finishing facility, Savannah River Site ○ Lithium processing facility, Y-12 ○ High explosives synthesis, formulation, and production, Pantex ○ Chemistry and metallurgy replacement project, Los Alamos National Laboratory ○ Emergency operations center, Sandia National Laboratories ○ Emergency operations center, Lawrence Livermore National Laboratory ○ 138kV Power transmission system replacement, Nevada National Security Site

Category	Category information
Secure transportation asset	<ul style="list-style-type: none"> Secure transportation asset operations and equipment Program direction
Defense nuclear security	<ul style="list-style-type: none"> Defense nuclear security West end protected area reduction project, Y-12
Information technology and cybersecurity	
Legacy contractor pensions	

Source: GAO analysis of the explanatory statement for the Energy and Water Development and Related Agencies Appropriations Act, 2021, which was enacted as Division D of the Consolidated Appropriations Act, 2021. | GAO-22-104541

PPAs funded in NNSA’s DNN appropriation account are focused on preventing adversaries from acquiring nuclear weapons or weapons-usable materials, technology, and expertise; countering efforts to acquire such weapons or materials; and responding to nuclear or radiological accidents and incidents domestically and abroad. Table 16 lists the PPAs in NNSA’s DNN appropriation account for fiscal year 2021.

Table 16: Programs, Projects, and Activities of the National Nuclear Security Administration’s Defense Nuclear Nonproliferation Appropriation Account, Fiscal Year 2021

Category	Category information
Defense nuclear nonproliferation programs	<ul style="list-style-type: none"> Material management and minimization: <ul style="list-style-type: none"> Conversion Nuclear material removal Material disposition Laboratory and partnership support Global material security: <ul style="list-style-type: none"> International nuclear security Domestic radiologic security International radiologic security Nuclear smuggling detection and deterrence Nonproliferation and arms control National technical nuclear forensics research and development Defense nuclear nonproliferation research and development: <ul style="list-style-type: none"> Proliferation detection Nuclear detection detonation Nonproliferation fuels development Nonproliferation stewardship program Nonproliferation construction: <ul style="list-style-type: none"> Surplus plutonium disposition project, Savannah River Site
Nuclear counterterrorism and incident response	<ul style="list-style-type: none"> Emergency operations Counterterrorism and counterproliferation
Legacy contractor pensions	

Source: GAO analysis of the explanatory statement for the Energy and Water Development and Related Agencies Appropriations Act, 2021, which was enacted as Division D of the Consolidated Appropriations Act, 2021. | GAO-22-104541

Enclosure III: Examples of Office of Environmental Management and National Nuclear Security Administration Uncosted Carryover Balances That Exceeded Thresholds

The Department of Energy’s (DOE) Office of Environmental Management (EM) and the National Nuclear Security Administration (NNSA) use percentage target thresholds to identify excess uncosted obligated balances (uncosted balances) that should be scrutinized further to determine the extent to which the balances are appropriate.⁹³ The thresholds are expressed as percentage targets of the total of all obligated amounts available to a program to cost in any given fiscal year, depending on the types of activities that the program is conducting.⁹⁴ DOE documents state that if any balances are found to be in excess of the thresholds, those balances will become subject to more intensive review and require more detailed justification to determine their appropriateness. Moreover, the thresholds used by EM and NNSA to identify excess uncosted balances apply only to operating activities; line-item construction projects are separate from operating programs and are not subject to any threshold.⁹⁵

According to our analysis of EM data, we identified nine EM operating activities with uncosted balances that exceeded DOE’s thresholds by \$15 million or more at the end of fiscal year 2021.⁹⁶ Table 17 below provides additional details about the operating activities’ uncosted balances at the end of fiscal year 2021, the dollar amount of the DOE thresholds for fiscal year 2021, and the amount of uncosted balances found to be in excess of the DOE thresholds at the end of fiscal year 2021.

Table 17: EM Operating Activities with Uncosted Balances That Exceeded DOE’s Thresholds by \$15 Million or More at the End of Fiscal Year 2021 (dollars in millions)

EM operating activity	Uncosted balance at the end of fiscal year 2021	DOE uncosted thresholds amount for fiscal year 2021	Uncosted balance over DOE thresholds at the end of fiscal year 2021
Small sites	160.3	48.7	111.7
Waste Isolation Pilot Plant	154.4	65.3	89.1
Oak Ridge cleanup and disposition	102.9	28.3	74.6

⁹³DOE documents specifically define a target threshold as an analytical reference point (i.e., a specific dollar value or percentage of funds available) beyond which uncosted obligation balances should be given greater scrutiny.

⁹⁴An uncosted obligation, or uncosted balance, is budget authority obligated but not costed, representing a portion of contract obligations for goods and services that have not yet been received. Not all obligations are costed during a given fiscal year, so for programs, projects, and activities with no-year funding, the uncosted balances can accumulate, or carry over, from one fiscal year to the next.

⁹⁵DOE documents state that line-item construction projects must be evaluated on a case-by-case basis. Moreover, we have previously reported that there is no need to establish a target level of carryover balances for construction projects because each one is unique, and its level of carryover balances can easily be measured against the remaining scope of work, milestones, and specific budget request. See GAO, *DOE Management: DOE Needs to Improve Its Analysis of Carryover Balances*, [GAO/RCED-96-57](#) (Washington, D.C.: Apr. 12, 1996).

⁹⁶To better understand EM and NNSA operating activities with uncosted balances in excess of applicable thresholds at the end of fiscal year 2021, we identified a nongeneralizable sample of 50 EM and NNSA operating activities to review further by selecting those activities with balances that exceeded DOE’s thresholds by \$15 million or more. We selected the \$15 million benchmark based on our review of EM’s and NNSA’s data, in part because we judged that it represented a natural breakpoint that described the majority of the uncosted balances that exceeded the applicable thresholds. As these 50 EM and NNSA operating activities are a nongeneralizable sample, our results cannot be generalized to all EM and NNSA operating activities.

EM operating activity	Uncosted balance at the end of fiscal year 2021	DOE uncosted thresholds amount for fiscal year 2021	Uncosted balance over DOE thresholds at the end of fiscal year 2021
Los Alamos National Laboratory	116.0	44.3	71.7
Lawrence Livermore National Laboratory excess facilities decontamination and decommissioning	59.4	10.0	49.4
Waste treatment and immobilization plant commissioning	34.9	8.0	27.0
Technology development	40.1	13.6	26.5
Nevada	40.2	16.3	23.9
Safeguards and security	79.0	58.5	20.5
Total	787.2	293.0	494.4

Source: GAO analysis of Department of Energy (DOE) Office of Environmental Management (EM) data at the end of fiscal year 2021. | GAO-22-104541

Note: The Small Sites operating activity is funded in EM's Non-Defense Environmental Cleanup appropriation account. The remaining operating activities are funded in EM's Defense Environmental Cleanup appropriation account. In addition, totals may not match because of rounding.

We further examined these nine EM operating activities over the 5-year period from fiscal year 2017 through fiscal year 2021 to determine whether the activities previously carried over uncosted balances in excess of DOE's thresholds. As shown in table 18, many of the nine EM operating activities with year-end uncosted balances that exceeded DOE's thresholds by \$15 million or more at the end of fiscal year 2021 also carried over balances in excess of DOE's thresholds in prior years.

Table 18: Five-Year Trends for EM Operating Activities with Uncosted Balances of \$15 Million or More Over DOE’s Thresholds, as of the End of Fiscal Year 2021

EM operating activity	Fiscal year 2021	Fiscal year 2020	Fiscal year 2019	Fiscal year 2018	Fiscal year 2017
Small sites	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Waste Isolation Pilot Plant	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by less than \$15 million
Oak Ridge cleanup and disposition	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Los Alamos National Laboratory	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by less than \$15 million
Lawrence Livermore National Laboratory excess facilities decontamination and decommissioning	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by less than \$15 million	Over thresholds by less than \$15 million	n/a
Waste treatment and immobilization plant commissioning	Over thresholds by more than \$15 million	Over thresholds by less than \$15 million	Over thresholds by less than \$15 million	Over thresholds by less than \$15 million	Over thresholds by less than \$15 million
Technology development	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by less than \$15 million	Over thresholds by more than \$15 million	Over thresholds by less than \$15 million
Nevada	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by less than \$15 million	Over thresholds by less than \$15 million	Over thresholds by less than \$15 million
Safeguards and security	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by less than \$15 million	Over thresholds by less than \$15 million	Under thresholds

Legend:

- = Over thresholds by more than \$15 million
- ◐ = Over thresholds by less than \$15 million
- = Under thresholds

n/a = Operating activity was not yet created

Source: GAO analysis of Department of Energy (DOE) Office of Environmental Management (EM) data from fiscal years 2017 through 2021, as of the end of fiscal year 2021. | GAO-22-104541

Note: The Small Sites operating activity is funded in EM’s Non-Defense Environmental Cleanup appropriation account. The remaining operating activities are funded in EM’s Defense Environmental Cleanup appropriation account.

In addition, according to our analysis of NNSA data for the Weapons Activities and Defense Nuclear Nonproliferation (DNN) appropriation accounts, we identified 41 NNSA operating activities that had uncosted balances that exceeded DOE’s thresholds by \$15 million or more at the end of fiscal year 2021.⁹⁷ Table 19 below provides additional details about the operating activities’ uncosted balances at the end of fiscal year 2021, the dollar amount of the DOE thresholds for fiscal year 2021, and the amount of uncosted balances found to be in excess of the DOE thresholds at the end of fiscal year 2021.

Table 19: NNSA Operating Activities with Uncosted Balances That Exceeded DOE’s Thresholds by \$15 Million or More at the End of Fiscal Year 2021 (dollars in millions)

Category	NNSA operating activity	Uncosted balance at the end of fiscal year 2021	DOE uncosted thresholds amount for fiscal year 2021	Uncosted balance over DOE thresholds at the end of fiscal year 2021
Weapons Activities	Infrastructure and safety	677.8	382.5	295.3
Weapons Activities	Advanced simulation and computing	388.9	236.2	152.7
Weapons Activities	Stockpile sustainment	273.8	134.2	139.6
Weapons Activities	Operations of facilities	308.3	171.7	136.6
Weapons Activities	Defense nuclear security	251.3	144.1	107.2
Weapons Activities	Maintenance and repair of facilities	211.7	109.7	102.0
Weapons Activities	Tritium modernization	169.3	68.6	100.8
Weapons Activities	Information technology and cybersecurity	167.7	69.6	98.1
Weapons Activities	Highly enriched uranium downblend	89.7	23.6	66.1
Weapons Activities	Domestic uranium enrichment	81.9	18.6	63.3
Weapons Activities	Los Alamos plutonium operations	174.1	114.2	59.9
Weapons Activities	Academic programs	91.2	35.2	56.0
Weapons Activities	Secure transportation asset – operations and equipment	122.6	69.4	53.2
Weapons Activities	Production operations	133.9	82.1	51.8
Weapons Activities	Capability-based investments	136.0	89.2	46.8

⁹⁷We did not include NNSA’s Federal Salaries and Expenses and Naval Reactors accounts as part of this analysis because NNSA has only 2-year funding authority for the Federal Salaries and Expenses account and because activities conducted with funds from the Naval Reactors account are carried out jointly with the Navy.

Category	NNSA operating activity	Uncosted balance at the end of fiscal year 2021	DOE uncosted thresholds amount for fiscal year 2021	Uncosted balance over DOE thresholds at the end of fiscal year 2021
Weapons Activities	Depleted uranium modernization	57.1	14.1	42.9
Weapons Activities	Uranium sustainment	76.8	37.7	39.1
Weapons Activities	Nonnuclear capability modernization	82.6	44.5	38.1
Weapons Activities	Safety and environmental operations	68.9	32.7	36.2
Weapons Activities	W87-1 modification program	282.1	251.7	30.4
Weapons Activities	Inertial confinement fusion	130.3	101.3	29.0
Weapons Activities	Savannah River plutonium operations	53.2	27.2	26.0
Weapons Activities	Enterprise plutonium support	40.5	17.5	23.1
Weapons Activities	Primary assessment technologies	41.4	23.1	18.3
Weapons Activities	Dynamic materials properties	37.1	21.2	15.8
Weapons Activities	Hydrodynamic and subcritical execution support	43.2	28.1	15.1
Defense Nuclear Nonproliferation	Nuclear smuggling detection and deterrence	201.8	51.3	150.5
Defense Nuclear Nonproliferation	International nuclear security	126.5	25.9	100.6
Defense Nuclear Nonproliferation	Domestic radiological security	138.8	43.7	95.1
Defense Nuclear Nonproliferation	Material disposition	160.9	68.4	92.5
Defense Nuclear Nonproliferation	Proliferation detection	134.2	62.1	72.1
Defense Nuclear Nonproliferation	Nuclear detonation detection	132.6	66.1	66.5
Defense Nuclear Nonproliferation	International radiological security	88.4	23.0	65.4
Defense Nuclear Nonproliferation	Conversion	81.4	25.8	55.5
Defense Nuclear Nonproliferation	Nonproliferation stewardship program	51.9	14.9	37.0
Defense Nuclear Nonproliferation	Laboratory and partnership support	69.6	33.9	35.8
Defense Nuclear Nonproliferation	Counterterrorism and counterproliferation	87.6	54.7	32.8

Category	NNSA operating activity	Uncosted balance at the end of fiscal year 2021	DOE uncosted thresholds amount for fiscal year 2021	Uncosted balance over DOE thresholds at the end of fiscal year 2021
Defense Nuclear Nonproliferation	Nonproliferation and arms control	59.3	29.3	30.1
Defense Nuclear Nonproliferation	Nuclear material removal	41.4	11.7	29.7
Defense Nuclear Nonproliferation	International nuclear and radiological material removal and protection	29.2	4.1	25.1
Defense Nuclear Nonproliferation	International material protection and cooperation	27.3	5.5	21.8
n/a	Total	5,622.3	2,868.4	2,753.9

Legend: DOE = Department of Energy

Source: GAO analysis of National Nuclear Security Administration (NNSA) data at the end of fiscal year 2021. | GAO-22-104541

Note: Totals may not match because of rounding.

We also examined the 41 NNSA operating activities with uncosted balances that exceeded DOE’s thresholds by \$15 million or more at the end of fiscal year 2021 over the 5-year period from fiscal year 2017 through fiscal year 2021 to determine whether the activities previously carried over uncosted balances in excess of DOE’s thresholds. As shown in table 20, we found that many of the 41 NNSA operating activities with year-end uncosted balances that exceeded DOE’s thresholds by \$15 million or more at the end of fiscal year 2021 also carried over balances in excess of DOE’s thresholds in prior years.

Table 20: Five-Year Trends for NNSA Operating Activities with Uncosted Balances of \$15 Million or More Over DOE’s Thresholds, as of the End of Fiscal Year 2021

Category	NNSA operating activity	Fiscal year 2021	Fiscal year 2020	Fiscal year 2019	Fiscal year 2018	Fiscal year 2017
Weapons Activities	Infrastructure and safety	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Weapons Activities	Advanced simulation and computing	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Weapons Activities	Stockpile sustainment ^a	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Weapons Activities	Operations of facilities	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million

Category	NNSA operating activity	Fiscal year 2021	Fiscal year 2020	Fiscal year 2019	Fiscal year 2018	Fiscal year 2017
Weapons Activities	Defense nuclear security	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Weapons Activities	Maintenance and repair of facilities	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Weapons Activities	Tritium modernization ^b	Over thresholds by more than \$15 million	n/a	n/a	n/a	n/a
Weapons Activities	Information technology and cybersecurity	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Weapons Activities	Highly enriched uranium downblend	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	n/a	n/a	n/a
Weapons Activities	Domestic uranium enrichment	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Weapons Activities	Los Alamos plutonium operations ^c	Over thresholds by more than \$15 million	n/a	n/a	n/a	n/a
Weapons Activities	Academic programs ^d	Over thresholds by more than \$15 million	n/a	n/a	n/a	n/a
Weapons Activities	Secure transportation asset – operations and equipment	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Weapons Activities	Production operations ^e	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Under thresholds	Under thresholds	Over thresholds by less than \$15 million
Weapons Activities	Capability-based investments	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million

Category	NNSA operating activity	Fiscal year 2021	Fiscal year 2020	Fiscal year 2019	Fiscal year 2018	Fiscal year 2017
Weapons Activities	Depleted uranium modernization ^f	Over thresholds by more than \$15 million	n/a	n/a	n/a	n/a
Weapons Activities	Uranium sustainment	Over thresholds by more than \$15 million	Over thresholds by less than \$15 million	Over thresholds by less than \$15 million	Over thresholds by less than \$15 million	Over thresholds by less than \$15 million
Weapons Activities	Nonnuclear capability modernization ^g	Over thresholds by more than \$15 million	n/a	n/a	n/a	n/a
Weapons Activities	Safety and environmental operations	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Weapons Activities	W87-1 modification program ^h	Over thresholds by more than \$15 million	Under thresholds	Under thresholds	n/a	n/a
Weapons Activities	Inertial confinement fusion ⁱ	Over thresholds by more than \$15 million	Under thresholds	Under thresholds	Under thresholds	Under thresholds
Weapons Activities	Savannah River plutonium operations ^j	Over thresholds by more than \$15 million	n/a	n/a	n/a	n/a
Weapons Activities	Enterprise plutonium support ^k	Over thresholds by more than \$15 million	n/a	n/a	n/a	n/a
Weapons Activities	Primary assessment technologies ^l	Over thresholds by more than \$15 million	Under thresholds	Under thresholds	Under thresholds	Under thresholds
Weapons Activities	Dynamic materials properties ^m	Over thresholds by more than \$15 million	Under thresholds	Under thresholds	Under thresholds	Under thresholds
Weapons Activities	Hydrodynamic and subcritical execution support ⁿ	Over thresholds by more than \$15 million	n/a	n/a	n/a	n/a

Category	NNSA operating activity	Fiscal year 2021	Fiscal year 2020	Fiscal year 2019	Fiscal year 2018	Fiscal year 2017
Defense Nuclear Nonproliferation	Nuclear smuggling detection and deterrence	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Defense Nuclear Nonproliferation	International nuclear security	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Defense Nuclear Nonproliferation	Domestic radiological security	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Defense Nuclear Nonproliferation	Material disposition	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Defense Nuclear Nonproliferation	Proliferation detection	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	n/a
Defense Nuclear Nonproliferation	Nuclear detonation detection	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	n/a
Defense Nuclear Nonproliferation	International radiological security	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Defense Nuclear Nonproliferation	Conversion ^o	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by less than \$15 million	Over thresholds by less than \$15 million	Over thresholds by more than \$15 million
Defense Nuclear Nonproliferation	Nonproliferation stewardship program	Over thresholds by more than \$15 million	Over thresholds by less than \$15 million	n/a	n/a	n/a
Defense Nuclear Nonproliferation	Laboratory and partnership support	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	n/a
Defense Nuclear Nonproliferation	Counterterrorism and counterproliferation	Over thresholds by more than \$15 million	Over thresholds by less than \$15 million	Under thresholds	Over thresholds by less than \$15 million	Over thresholds by more than \$15 million

Category	NNSA operating activity	Fiscal year 2021	Fiscal year 2020	Fiscal year 2019	Fiscal year 2018	Fiscal year 2017
Defense Nuclear Nonproliferation	Nonproliferation and arms control	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Defense Nuclear Nonproliferation	Nuclear material removal	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Defense Nuclear Nonproliferation	International nuclear and radiological material removal and protection	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Defense Nuclear Nonproliferation	International material protection and cooperation	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million

Legend:

● = Over thresholds by more than \$15 million

◐ = Over thresholds by less than \$15 million

○ = Under thresholds

n/a = Operating activity was not yet created

DOE = Department of Energy

Source: GAO analysis of National Nuclear Security Administration (NNSA) data from fiscal years 2017 through 2021, as of the end of fiscal year 2021. | GAO-22-104541

^aThe Stockpile Sustainment program was established as part of NNSA's budget restructure in fiscal year 2021. It consists of two programs from NNSA's previous budget structure for fiscal years 2017 through 2020: (1) Stockpile Systems; and (2) Manufacturing, Technology, and Production. The table entries for fiscal years 2017 through 2020, therefore, are a combination of the two previously separate programs in light of the current fiscal year 2021 structure.

^bThe Tritium Modernization program was established as part of NNSA's budget restructure in fiscal year 2021. Activities funded under this program were previously funded primarily as part of the Tritium Sustainment program but also incorporate activities previously funded under the Strategic Materials Sustainment program.

^cThe Los Alamos Plutonium Operations program was established as part of NNSA's budget restructure in fiscal year 2021. Activities funded under this program were previously funded primarily as part of the Plutonium Sustainment program in fiscal year 2020, which was similarly restructured in fiscal year 2021.

^dAcademic Programs was established as part of NNSA's budget restructure in fiscal year 2021.

^eProduction Operations was renamed from Production Support as part of NNSA's budget restructure in fiscal year 2021. The table entries for fiscal years 2017 through 2020, therefore, reflect the program under this prior name.

^fThe Depleted Uranium Modernization program was established as a new program in fiscal year 2021. It includes new scope of work, as well as the depleted uranium portions of the previous Uranium Sustainment program and other programs.

^gNonnuclear Capability Modernization was established as part of NNSA's budget restructure in fiscal year 2021.

^hThe W87-1 modification program was previously named the Interoperable Warhead-1 program in fiscal year 2019 but underwent a name change in fiscal year 2020.

ⁱThe Inertial Confinement Fusion program was established as part of NNSA's budget restructure in fiscal year 2021. It consists of the Ignition and Other Stockpile Programs; Diagnostic, Cryogenics, and Experimental Support; Pulsed Power Inertial Confinement Fusion; and Facility Operations and Target Production programs from NNSA's previous budget structure for fiscal years 2017 through 2020. The table entries for fiscal years 2017 through 2020, therefore, are a combination of these previously separate programs in light of the current fiscal year 2021 structure.

^jThe Savannah River Plutonium Operations program was established as part of NNSA's budget restructure in fiscal year 2021. Activities funded under this program were previously funded primarily as part of the Plutonium Sustainment program in fiscal year 2020, which was similarly restructured in fiscal year 2021.

^kEnterprise Plutonium Support was established as part of NNSA's budget restructure in fiscal year 2021. It includes some activities previously funded under the Strategic Materials Sustainment program in fiscal year 2020.

^lPrimary Assessment Technologies was reorganized as part of NNSA's budget restructure in fiscal year 2021 and now includes some activities previously funded under the Dynamic Materials Properties subprogram in fiscal year 2020. The table entries for fiscal years 2017 through 2020, therefore, are reflective of the prefiscal year 2021 structure for Primary Assessment Technologies.

^mDynamic Materials Properties was reorganized as part of NNSA's budget restructure in fiscal year 2021, with some activities being moved into Primary Assessment Technologies. The table entries for fiscal years 2017 through 2020, therefore, are reflective of the prefiscal year 2021 structure for Dynamic Materials Properties.

ⁿHydrodynamic and Subcritical Execution Support was established as part of NNSA's budget restructure in fiscal year 2021 and includes activities previously funded under Research and Development Certification and Safety in fiscal year 2020.

^oThe Conversion program was renamed from the Highly Enriched Uranium Reactor Conversion program in fiscal year 2021. The table entries for fiscal years 2017 through 2020, therefore, reflect the program under this prior name.

In addition, we identified six DNN operating activities with unencumbered uncosted balances that exceeded DOE's thresholds by \$15 million or more at the end of fiscal year 2021.⁹⁸ Table 21 below provides additional details about the DNN operating activities' unencumbered uncosted balances at the end of fiscal year 2021, the dollar amount of the DOE thresholds for fiscal year 2021, and the amount of unencumbered uncosted balances found to be in excess of the DOE thresholds at the end of fiscal year 2021.

Table 21: NNSA Defense Nuclear Nonproliferation Operating Activities with Unencumbered Uncosted Balances of \$15 Million or More Over DOE's Thresholds at the End of Fiscal Year 2021 (dollars in millions)

NNSA operating activity	Unencumbered uncosted balance at the end of fiscal year 2021	DOE uncosted threshold amount for fiscal year 2021	Unencumbered uncosted balance over DOE threshold at the end of fiscal year 2021
International nuclear security	103.2	25.9	77.3
Nuclear detonation detection	98.5	66.1	32.4
Proliferation detection	87.9	62.1	25.8
Conversion ^a	50.4	25.8	24.5
Nonproliferation stewardship program	31.8	14.9	16.9
Material disposition	84.0	68.4	15.6
Total	455.8	263.2	192.5

Legend: DOE = Department of Energy

Source: GAO analysis of National Nuclear Security Administration (NNSA) data at the end of fiscal year 2021. | GAO-22-104541

Note: Totals may not match because of rounding.

^aThe Conversion program was renamed from the Highly Enriched Uranium Reactor Conversion program in fiscal year 2021. The table entries for fiscal years 2017 through 2020, therefore, reflect the program under this prior name.

We also examined the six DNN operating activities with unencumbered uncosted balances that exceeded DOE's thresholds by \$15 million or more at the end of fiscal year 2021 over the 5-year period from fiscal year 2017 through fiscal year 2021 to determine whether the activities

⁹⁸According to NNSA documents, because much of DNN's work is performed overseas, DNN measures financial performance in terms of the percentage of funds that have been costed and encumbered rather than just the percentage of funds that have been costed. An encumbered uncosted balance represents the amount of funds that have been obligated by DOE to a contract and have been reserved by the contractor for a specific purpose, such as a subcontract. An unencumbered uncosted balance represents the portion of the uncosted obligation balance that has not yet been encumbered by the contractor.

previously carried over unencumbered uncosted balances in excess of the thresholds. As shown in table 22, we found that two of the six DNN operating activities with year-end unencumbered uncosted balances that exceeded DOE’s thresholds by \$15 million or more at the end of fiscal year 2021 also carried over unencumbered uncosted balances in excess of the thresholds in each of the past 5 fiscal years.

Table 22: Five-Year Trends for NNSA DNN Operating Activities with Unencumbered Uncosted Balances of \$15 Million or More Over DOE’s Thresholds, as of the End of Fiscal Year 2021

NNSA operating activity	Fiscal year 2021	Fiscal year 2020	Fiscal year 2019	Fiscal year 2018	Fiscal year 2017
International nuclear security	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million
Nuclear detonation detection	Over thresholds by more than \$15 million	Under thresholds	Over thresholds by less than \$15 million	Under thresholds	n/a
Proliferation detection	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	n/a
Conversion ^a	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Under thresholds	Under thresholds	Under thresholds
Nonproliferation stewardship program	Over thresholds by more than \$15 million	Over thresholds by less than \$15 million	n/a	n/a	n/a
Material disposition	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million	Over thresholds by more than \$15 million

Legend:

- = Over thresholds by more than \$15 million
- ◐ = Over thresholds by less than \$15 million
- = Under thresholds
- n/a = Operating activity was not yet created
- DOE = Department of Energy

Source: GAO analysis of National Nuclear Security Administration (NNSA) Defense Nuclear Nonproliferation (DNN) data from fiscal years 2017 through 2021, as of the end of fiscal year 2021. | GAO-22-104541

^aThe Conversion program was renamed from the Highly Enriched Uranium Reactor Conversion program in fiscal year 2021. The table entries for fiscal years 2017 through 2020, therefore, reflect the program under this prior name.

Enclosure IV: Comments from the Department of Energy



Department of Energy

Washington, DC 20585

June 22, 2022

Ms. Allison Bawden
Director
Natural Resources and Environment
U.S. Government Accountability Office
441 G Street N.W.
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, "*Financial Management: DOE and NNSA Have Opportunities to Improve Management of Carryover Balance (GAO-22-104541)*." The draft report contains a total of seven recommendations, five of which are directed to the DOE Chief Financial Officer and two of which are directed to NNSA.

DOE concurs with the substance of GAO's recommendations to: reevaluate the uncosted balance thresholds used by the Department as budget execution metrics, with limited changes, since 1996; clarify how the metrics are used in DOE's budget formulation process; and establish procedures to reevaluate the metrics as appropriate in the future. To accomplish this, the CFO will establish a DOE working group with the following objectives:

- Consider why DOE's uncosted balance thresholds were established at their current level and review their effectiveness as budget execution metrics;
- Consider the current structure of DOE's uncosted balance thresholds, and identify whether changes should be made to the number of uncosted balance thresholds used and the categories of spending to which the thresholds are applied;
- Consider other budget execution metrics and processes that could be used either in conjunction with or in lieu of the uncosted balance metrics;
- Provide recommendations for how and which processes and metrics for analyzing uncosted balances should inform DOE's budget formulation processes; and
- Provide recommendations for a process to periodically review and reassess DOE's budget execution metrics.

CFO will incorporate working group recommendations into DOE's forthcoming Planning, Programming, Budgeting, and Execution (PPBE) policy, or other policy as appropriate.

Enclosure

**Management Response
GAO Draft Report:
Financial Management: DOE and NNSA Have Opportunities
to Improve Management of Carryover Balance
(GAO-22-104541)**

Please direct any questions to me at Christopher.Johns@hq.doe.gov or Thomas Griffin at Thomas.Griffin@hq.doe.gov.

Sincerely,

A handwritten signature in blue ink that reads "Christopher Johns". The signature is written in a cursive style.

Christopher Johns
Deputy Chief Financial Officer

Enclosure

**Management Response
GAO Draft Report:
Financial Management: DOE and NNSA Have Opportunities
to Improve Management of Carryover Balance
(GAO-22-104541)**

Office of the Chief Financial Officer (CFO):

Recommendation 1: The DOE Chief Financial Officer should document DOE's and NNSA's thresholds to more clearly describe how the thresholds should be applied to uncosted balances and better define the purpose of the percentage targets to ensure that EM, NNSA, and other departmental elements apply the thresholds consistently.

DOEs Response: Concur

The CFO will establish a DOE working group to provide recommendations regarding the appropriate use of uncosted balance thresholds as a budget execution metric, including the structure of the thresholds used, the category of spending to which the thresholds are applied, how the thresholds are established, how they are reviewed, and how they are used in DOE's budget formulation process.

Working group recommendations will be considered by the CFO and decisions regarding the future use of uncosted balance thresholds will be incorporated into DOE Financial Policy as appropriate.

Estimated Completion Date: March 31, 2023

Recommendation 2: The DOE Chief Financial Officer, with input from other departmental elements, should either develop the basis of support for the 40 percent target threshold DOE uses to identify and assess uncosted carryover balances in EM and NNSA programs related to the DOE-wide costing category for grants and cooperative agreements or revise the threshold, and then document the methodology and analysis supporting the department's decisions.

DOEs Response: Concur

The CFO will establish a DOE working group to provide recommendations regarding the appropriate use of uncosted balance thresholds as a budget execution metric, including the structure of the thresholds used, the category of spending to which the thresholds are applied, how the thresholds are established, how they are reviewed, and how they are used in DOE's budget formulation process.

Working group recommendations will be considered by the CFO and decisions regarding the future use of uncosted balance thresholds will be incorporated into DOE Financial Policy as appropriate.

Estimated Completion Date: March 31, 2023

Enclosure

**Management Response
GAO Draft Report:
Financial Management: DOE and NNSA Have Opportunities
to Improve Management of Carryover Balance
(GAO-22-104541)**

Recommendation 4: The DOE Chief Financial Officer, with input from other departmental elements, should periodically reassess the four target thresholds DOE uses to identify and assess uncosted carryover balances in EM and NNSA programs to ensure they reflect the current budgetary environment, including with respect to any assumptions made about the duration of continuing resolutions, and either revalidate or revise the thresholds.

DOEs Response: Concur

The CFO will establish a DOE working group to provide recommendations regarding the appropriate use of uncosted balance thresholds as a budget execution metric, including the structure of the thresholds used, the category of spending to which the thresholds are applied, how the thresholds are established, how they are reviewed, and how they are used in DOE's budget formulation process.

Working group recommendations will be considered by the CFO and decisions regarding the future use of uncosted balance thresholds will be incorporated into DOE Financial Policy as appropriate.

Estimated Completion Date: March 31, 2023

Recommendation 6: The DOE Chief Financial Officer should develop guidance that clearly documents the process DOE and NNSA staff should use when assessing excess uncosted balances and the sufficiency of their justifications, including describing how to make and document determinations about the sufficiency of the justifications.

DOEs Response: Concur

The CFO will establish a DOE working group to provide recommendations regarding the appropriate use of uncosted balance thresholds as a budget execution metric, including the structure of the thresholds used, the category of spending to which the thresholds are applied, how the thresholds are established, how they are reviewed, and how they are used in DOE's budget formulation process.

Working group recommendations will be considered by the CFO and decisions regarding the future use of uncosted balance thresholds will be incorporated into DOE Financial Policy as appropriate.

Estimated Completion Date: March 31, 2023

Enclosure

**Management Response
GAO Draft Report:
Financial Management: DOE and NNSA Have Opportunities
to Improve Management of Carryover Balance
(GAO-22-104541)**

Recommendation 7: The DOE Chief Financial Officer should develop guidance, such as in DOE Order 130.1A, or other relevant programming guidance documents, that clearly documents the steps DOE and NNSA should take in the annual planning, programming, budgeting, and evaluation process to evaluate and consider excess uncosted balances when developing future funding requests.

DOEs Response: Concur

The CFO will establish a DOE working group to provide recommendations regarding the appropriate use of uncosted balance thresholds as a budget execution metric, including the structure of the thresholds used, the category of spending to which the thresholds are applied, how the thresholds are established, how they are reviewed, and how they are used in DOE's budget formulation process.

Working group recommendations will be considered by the CFO and decisions regarding the future use of uncosted balance thresholds will be incorporated into DOE Financial Policy as appropriate.

Estimated Completion Date: March 31, 2023

Enclosure

**Management Response
GAO Draft Report:
Financial Management: DOE and NNSA Have Opportunities
to Improve Management of Carryover Balance
(GAO-22-104541)**

National Nuclear Security Administration (NNSA):

Recommendation 3: The NNSA Associate Administrator for Management and Budget, with input from pertinent NNSA program offices, should either develop the basis of support for the 45 percent threshold NNSA uses to identify and assess uncosted carryover balances related to the NNSA-specific costing category for weapon modernization programs or revise the threshold, and document the methodology and analysis supporting the agency's decisions

NNSAs Response: Concur.

NNSA, in coordination with DOE CFO, will review the current basis of support for the 45 percent weapon modernization program threshold; maintain or revise the threshold as appropriate; and document any changes to the analysis supporting the final decision.

Estimated Completion Date: The estimated completion date for this action is November 30, 2022.

Recommendation 5: The NNSA Associate Administrator for Management and Budget, with input from relevant NNSA program offices, should periodically reassess the target threshold NNSA uses to identify and assess uncosted carryover balances related to its weapon modernization programs to ensure it reflects the current budgetary environment, including with respect to any assumptions made about the duration of continuing resolutions, and either revalidate or revise the threshold.

NNSAs Response: Concur.

NNSA, in coordination with DOE CFO, will develop a process for the periodic reassessment of our approach for evaluating carryover balances across the Enterprise, including any thresholds or other metrics. The process will consider variables such as duration of continuing resolutions, funds distribution timelines, full funding requirements related to capital assets, contracting approaches, and management reserve and contingency requirements.

Estimated Completion Date: The estimated date for completing these actions is June 30, 2023.

Accessible Text for Enclosure IV: Comments from the Department of Energy

June 22, 2022

Ms. Allison Bawden
Director
Natural Resources and Environment
U.S. Government Accountability Office
441 G Street N.W.
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, "Financial Management: DOE and NNSA Have Opportunities to Improve Management of Carryover Balance (GAO-22- 104541)." The draft report contains a total of seven recommendations, five of which are directed to the DOE Chief Financial Officer and two of which are directed to NNSA.

DOE concurs with the substance of GAO's recommendations to: reevaluate the uncosted balance thresholds used by the Department as budget execution metrics, with limited changes, since 1996; clarify how the metrics are used in DOE's budget formulation process; and establish procedures to reevaluate the metrics as appropriate in the future. To accomplish this, the CFO will establish a DOE working group with the following objectives:

- Consider why DOE's uncosted balance thresholds were established at their current level and review their effectiveness as budget execution metrics;
- Consider the current structure of DOE's uncosted balance thresholds, and identify whether changes should be made to the number of uncosted balance thresholds used and the categories of spending to which the thresholds are applied;
- Consider other budget execution metrics and processes that could be used either in conjunction with or in lieu of the uncosted balance metrics;
- Provide recommendations for how and which processes and metrics for analyzing uncosted balances should inform DOE's budget formulation processes; and
- Provide recommendations for a process to periodically review and reassess DOE's budget execution metrics.

CFO will incorporate working group recommendations into DOE's forthcoming Planning, Programming, Budgeting, and Execution (PPBE) policy, or other policy as appropriate.

Please direct any questions to me at Christopher.Johns@hq.doe.gov or Thomas Griffin at Thomas.Griffin@hq.doe.gov.

Sincerely,

Christopher Johns
Deputy Chief Financial Officer

Office of the Chief Financial Officer (CFO):

Recommendation 1: The DOE Chief Financial Officer should document DOE's and NNSA's thresholds to more clearly describe how the thresholds should be applied to uncosted balances and better define the purpose of the percentage targets to ensure that EM, NNSA, and other departmental elements apply the thresholds consistently.

DOEs Response: Concur

The CFO will establish a DOE working group to provide recommendations regarding the appropriate use of uncosted balance thresholds as a budget execution metric, including the structure of the thresholds used, the category of spending to which the thresholds are applied, how the thresholds are established, how they are reviewed, and how they are used in DOE's budget formulation process.

Working group recommendations will be considered by the CFO and decisions regarding the future use of uncosted balance thresholds will be incorporated into DOE Financial Policy as appropriate.

Estimated Completion Date: March 31, 2023

Recommendation 2: The DOE Chief Financial Officer, with input from other departmental elements, should either develop the basis of support for the 40 percent target threshold DOE uses to identify and assess uncosted carryover balances in EM and NNSA programs related to the DOE-wide costing category for grants and cooperative agreements or revise the threshold, and then document the methodology and analysis supporting the department's decisions.

DOEs Response: Concur

The CFO will establish a DOE working group to provide recommendations regarding the appropriate use of uncosted balance thresholds as a budget execution metric, including the structure of the thresholds used, the category of spending to which the thresholds are applied, how the thresholds are established, how they are reviewed, and how they are used in DOE's budget formulation process.

Working group recommendations will be considered by the CFO and decisions regarding the future use of uncosted balance thresholds will be incorporated into DOE Financial Policy as appropriate.

Estimated Completion Date: March 31, 2023

Recommendation 4: The DOE Chief Financial Officer, with input from other departmental elements, should periodically reassess the four target thresholds DOE uses to identify and assess uncosted carryover balances in EM and NNSA programs to ensure they reflect the current budgetary environment, including with respect to any assumptions made about the duration of continuing resolutions, and either revalidate or revise the thresholds.

DOEs Response: Concur

The CFO will establish a DOE working group to provide recommendations regarding the appropriate use of uncosted balance thresholds as a budget execution metric, including the structure of the thresholds used, the category of spending to which the thresholds are applied, how the thresholds are established, how they are reviewed, and how they are used in DOE's budget formulation process.

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Estimated Completion Date: March 31, 2023

Recommendation 6: The DOE Chief Financial Officer should develop guidance that clearly documents the process DOE and NNSA staff should use when assessing excess uncosted balances and the sufficiency of their justifications, including describing how to make and document determinations about the sufficiency of the justifications.

DOEs Response: Concur

The CFO will establish a DOE working group to provide recommendations regarding the appropriate use of uncosted balance thresholds as a budget execution metric, including the structure of the thresholds used, the category of spending to which the thresholds are applied, how the thresholds are established, how they are reviewed, and how they are used in DOE's budget formulation process.

Working group recommendations will be considered by the CFO and decisions regarding the future use of uncosted balance thresholds will be incorporated into DOE Financial Policy as appropriate.

Estimated Completion Date: March 31, 2023

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DOEs Response: Concur

The CFO will establish a DOE working group to provide recommendations regarding the appropriate use of uncosted balance thresholds as a budget execution metric, including the structure of the thresholds used, the category of spending to which the thresholds are applied, how the thresholds are established, how they are reviewed, and how they are used in DOE's budget formulation process.

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Estimated Completion Date: March 31, 2023

National Nuclear Security Administration (NNSA):

Recommendation 3: The NNSA Associate Administrator for Management and Budget, with input from pertinent NNSA program offices, should either develop the basis of support for the 45 percent threshold NNSA uses to identify and assess uncosted carryover balances related to the NNSA-specific costing category for weapon modernization programs or revise the threshold, and document the methodology and analysis supporting the agency's decisions

NNSAs Response: Concur.

NNSA, in coordination with DOE CFO, will review the current basis of support for the 45 percent weapon modernization program threshold; maintain or revise the threshold as appropriate; and document any changes to the analysis supporting the final decision.

Estimated Completion Date: The estimated completion date for this action is November 30, 2022.

Recommendation 5: The NNSA Associate Administrator for Management and Budget, with input from relevant NNSA program offices, should periodically reassess the target threshold NNSA uses to identify and assess uncosted carryover balances related to its weapon modernization programs to ensure it reflects the current budgetary environment, including with respect to any assumptions made about the duration of continuing resolutions, and either revalidate or revise the threshold.

NNSAs Response: Concur.

NNSA, in coordination with DOE CFO, will develop a process for the periodic reassessment of our approach for evaluating carryover balances across the Enterprise, including any thresholds or other metrics. The process will consider variables such as duration of continuing resolutions, funds distribution timelines, full funding requirements related to capital assets, contracting approaches, and management reserve and contingency requirements.

Estimated Completion Date: The estimated date for completing these actions is June 30, 2023.

(104541)