United States General Accounting Office Washington, D.C. 20548

160889

Resources, Community, and Economic Development Division

B-280169

July 24, 1998

The Honorable Duncan Hunter Chairman, Subcommittee on Military Procurement Committee on National Security House of Representatives

Subject: Department of Energy: Office of Environmental Management's and

Defense Programs' Fiscal Year 1999 Budget Requests

Dear Mr. Chairman:

As agreed with your office, we are providing you with information on our review of the Department of Energy's (DOE) fiscal year 1999 budget requests. This report provides information on (1) DOE's fiscal year 1999 budget requests for funds that may not be needed and (2) funding balances remaining from prior years—carryover balances—that may be available to reduce DOE's fiscal year 1999 funding requests. This review focused on requests to support two programs—Environmental Management (EM) and Defense Programs (DP)—which, together, account for over one-half of the Department's budget. Specifically, we examined requests for funds to support EM's privatization initiative and specific construction and operating projects at EM's Hanford Site in Washington, Idaho National Engineering and Environmental Laboratory, and Savannah River Site in South Carolina. We also examined DP's requests for specific projects at the Los Alamos National Laboratory and the Nevada Test Site. Our review of carryover balances focused on operating funding for EM and DP. We previously provided your office with this information in a briefing on April 14, 1998.

SUMMARY

As discussed in enclosure I, we question about \$110 million in funding requested for the Environmental Management program for fiscal year 1999. For example, \$85 million in funding for three privatization projects may not be needed because either the current budget authority is adequate to cover the contractor's

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expected costs or the Department has decided not to privatize the project. As discussed in enclosure II, we question about \$65 million in funding requested for Defense Programs for fiscal year 1999. For example, up to \$20 million may not be needed for subcritical nuclear experiments at the Nevada Test Site because constraints at the site's underground facility limit the number of tests that can be performed.¹

Our review found that the Environmental Management program may have from a deficit of \$82 million up to \$94 million in potentially available carryover balances for operating funds at the beginning of fiscal year 1999. In addition, our review found that Defense Programs may have from \$229 million to \$341 million in potentially available carryover balances for operating funds at the beginning of fiscal year 1999. (See enc. III.) The range of carryover balances we identified represent only a starting point from which to identify the amount that could be used to offset DOE's budget.

BACKGROUND

DOE's fiscal year 1999 budget request totals over \$18 billion, of which the funds for EM and DP account for about 59 percent, or \$10.6 billion. EM is responsible for managing and addressing the environmental problems resulting from the production of nuclear weapons, nuclear energy activities, and energy research activities. EM's request of \$6.1 billion for fiscal year 1999 includes \$517 million for its privatization initiative and \$2.6 billion for the Hanford Site, the Idaho National Engineering and Environmental Laboratory and the Savannah River Site. DP's mission is to maintain the safety, security, and reliability of the nation's nuclear weapons stockpile. DP's request of \$4.5 billion for fiscal year 1999 includes about \$1.08 billion for activities at the Los Alamos National Laboratory and the Nevada Test Site.

Carryover balances represent funding from prior years' budgets and consist of both unobligated balances and uncosted obligations. Each fiscal year, DOE requests obligational authority from the Congress to meet the costs of running its programs.² Once DOE receives this authority, it obligates funds by placing

¹Subcritical nuclear experiments involve small quantities of nuclear material and are designed to provide information about the behavior of that material during the implosion phase of a nuclear weapon.

²Some appropriations do not restrict the time in which funds must be obligated but state that the funds are "to remain available until expended." This is generally referred to as "no-year" authority. DOE receives no-year authority for

orders or awarding contracts for goods and services that will require payment during the same fiscal year or in the future. Unobligated balances represent the portion of its authority that the Department has not obligated. Uncosted obligations represent the portion of DOE's authority that the Department has obligated for goods and services but for which it has not yet incurred costs. Over the last several years, the Congress has reduced DOE's budget request and recommended that the Department use carryover balances in lieu of new funding.

SPECIFIC EM AND DP PROJECT REQUESTS MAY NOT BE NEEDED

Our review of EM's fiscal year 1999 request for specific projects at its Hanford Site, the Idaho National Engineering and Environmental Laboratory, and the Savannah River Site identified as much as \$111 million for 13 projects that may not be needed. This amount includes \$85 million for three privatization projects that may not be needed because either the current budget authority is adequate to cover the contractor's expected costs or the project is not going to be privatized. This amount also includes up to \$26 million for various construction and operation projects that may not be needed because, for example, the project has been completed for less cost or the project's scope has been reduced.

EM officials did not always agree with our characterization that the funds may not be needed. For example, EM officials agreed that the program would need only \$53 million to \$59 million to operate the In-Tank Precipitation Facility at Savannah River. (See table I.2 in enc. I.) However, they argued that the \$5.3 million to \$11.3 million difference between the estimated operating costs and the \$64.3 million request for this project would be needed to solve technical problems. EM officials could not tell us how much of the difference would actually be needed.

Our review of DP's fiscal year 1999 request for specific projects at the Los Alamos National Laboratory and the Nevada Test Site found that about \$65 million for four projects may not be needed. For example, we found that up to \$20 million may not be needed for subcritical experiments at the Nevada Test Site because limitations at the underground facility constrain the number of tests that can be performed. In addition, we found that up to \$4.3 million may be available from the renovation of the Nuclear Material Storage Facility because of project delays.

most of its activities.

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DOE officials also did not always agree that all of the funds we identified for DP were available either. (See enc. II for the funds we identified.) For example, Los Alamos officials argued that the Nuclear Material Storage Facility is critical to the laboratory's mission and said that during the next few months, they will estimate final design costs. However, even if design costs are estimated, much of the final design work will occur in fiscal year 2000 and the potential exists for the portion of the funding for that to be delayed until the fiscal year 2000 budget request.

SOME CARRYOVER BALANCES MAY BE AVAILABLE

On the basis of our program cost estimates for fiscal year 1998, we project that EM will have about \$801 million in carryover balances at the beginning of fiscal year 1999 for operating funds. Using minimum goals for carryover balances of 12 and 15 percent of total obligational authority,³ we estimate that EM will need a minimum of \$707 million to \$884 million to pay for prior years' commitments that have not yet been completed—thus, leaving about \$94 million in potentially available carryover balances at the beginning of fiscal year 1999 if a goal of 12 percent is assumed but a deficit of almost \$83 million if a 15-percent goal is assumed.

Similarly, we project that DP will have about \$788 million in carryover balances for operating funds at the beginning of fiscal year 1999. Using minimum goals for carryover balances of 12 percent and 15 percent of total obligational authority, we estimate that DP will need a minimum of about \$447 million to \$559 million to pay for prior years' commitments that have not yet been completed—thus, leaving about \$341 million in potentially available carryover

³As discussed in enc. IV, we adopted minimum-level carryover balance goals on the basis of an approach first developed by DOE's EM program. In prior years, we used a goal of a 1-month carryover balance (or 8 percent) for operating funds and a 6-month carryover balance (or 50 percent) for capital equipment funds. However, beginning in fiscal year 1998, operating and capital equipment activities are no longer funded as separate categories. To account for this change, we used a new goal (12 percent) for calculating carryover balances that would be the equivalent of those calculated under the dual-percentage method of prior years. Recognizing that the split between operating and capital equipment funds could vary somewhat from year to year, we also calculated the carryover balance goals at a 15-percent level.

balances at the beginning of fiscal year 1999 if a goal of 12 percent is assumed but about \$229 million if a 15-percent goal is assumed.

The potentially available carryover balances represent the amount of projected carryover balances that exceed minimum goals for balances needed to meet programs' commitments. Thus, these balances represent a starting point from which to identify the amount that could actually be used to offset DOE's budget. It should also be noted that when calculating these balances, we did make some adjustments for the programs' unique requirements. (See enc. IV for information on the adjustments made for each program area.) DOE should be able to quantify any of the programs' unique characteristics that determine the need for balances over the goals in order to determine the amount of the balances available to offset the budget requests.

AGENCY COMMENTS

We provided DOE with a draft of this report for review and comment. DOE disagreed with our overall methodology for analyzing carryover balances and with our findings on Defense Programs' construction projects. DOE raised four specific issues with regard to our methodology. First, DOE objected to the cost projections we used to estimate Defense Programs' fiscal year 1998 carryover balances. Second, DOE criticized our approach for establishing carryover balance goals. Third, DOE stated that our methodology did not identify specific areas where we believed balances may be available. Fourth, DOE criticized us for employing a methodology that it stated we had criticized the Department for using.4 DOE also commented on our findings on Defense Programs' construction projects. Specifically, DOE asserted that since our review questioned only a small percentage of the overall budget, it could be construed as a "significant endorsement" of Defense Programs' budgeting and planning efforts. In addition, DOE raised specific concerns about two of the construction projects we questioned. (See enc. V for DOE's letter and our detailed evaluation of the Department's comments.)

Overall, we continue to believe that our methodology is the correct one. The key differences between our approach and DOE's are that (1) we apply the goals to DOE's total obligational authority⁵ while DOE chooses to apply the goals to

⁴DOE Management: DOE Needs to Improve Its Analysis of Carryover Balances (GAO/RCED-96-57, Apr. 12, 1996).

⁵This amount includes the adjusted new obligational authority for a fiscal year plus any unobligated balances carried over into that-fiscal year.

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its costs and (2) we project carryover balances while DOE evaluates its prioryear cost performance. Applying the goals to DOE's total obligational authority essentially the funds the Congress has given DOE to spend—gives stable goals against which to judge DOE's performance. It also accounts for DOE's often large unobligated balances. If the goals are applied to costs, as done by DOE, as the amount spent goes up, the carryover balance goals also go up, creating the potential for an apparent shortfall in carryover balances. In our view, DOE's approach can create an incentive for DOE and its contractors to spend funds to create the appearance of a need for additional funds to meet their carryover balance goals. With respect to projecting balances, we continue to believe, as we recommended in our 1996 report, that projections are relevant in order to determine what balances may be available for the future budget under consideration.

Regarding DOE's criticism of our cost projections, we specifically tested our approach to determine if it was producing reliable estimates. We did this by comparing the results of using our projection approach with Defense Programs' actual cost experience in prior years. We found that our approach consistently overestimated the amount of costs Defense Programs actually incurred. Since overestimating Defense Programs' projected costs would result in underestimating its potentially available balance, we believed that using the projections we developed allowed an appropriate margin for error. Furthermore, at the request of congressional staff, we updated our results after our briefing. These updated results indicated that Defense Programs' potentially available balances may now range from about \$336 million if a goal of 12 percent is assumed to about \$224 million if a goal of 15 percent is assumed. Originally, we estimated that Defense Programs would have about \$341 million in potentially available carryover balances at the beginning of fiscal year 1999 if a goal of 12 percent is assumed but about \$229 million if a 15-percent goal is assumed.

With respect to the goals we use, we have consistently employed the same general goals DOE programs have developed and adapted them to fit our methodology. Recognizing, as we have over the years, that the results of our analysis "represent only a starting point from which to identify the amount that could be used to offset DOE's budget," we employed several goals in this year's analysis to suggest that there is a range of potentially available balances that may need to be evaluated.

On the issue of whether we identified specific areas where balances may be available, we did, as part of our overall methodology, examine specific construction and privatization projects in Defense Programs and Environmental

Management; however, we did not identify specific areas within DOE's carryover balances for operating funds. We recognize that our approach for analyzing operating funds does produce broad estimates and consistently have stated that these estimates represent a starting point subject to "further justification by DOE." We believe that, as the agency requesting the funds, DOE bears the burden of proof that it has adequately managed its programs and that it is not carrying over funds into the upcoming fiscal year that are in excess of those needed to successfully conduct its programs.

DOE is not correct when it states that we are using a methodology similar to the one we criticized the Department for using. Our April 1996 report recommended that the Department (1) establish carryover balance goals, (2) project carryover balances, and (3) justify the differences between the goals and the projected balances. Because we follow these three steps in this report, we believe our methodology is consistent with our April 1996 recommendation.

With respect to DOE's statement that our analysis is an endorsement of its fiscal year 1999 budget request for Defense Programs because the activities we questioned are a small percentage of the overall budget, we want to make clear that the results of our review are not such an endorsement. Our annual budget work focuses on selected activities for the fiscal year budget requests we are reviewing rather than the entire fiscal year 1999 budget request. We reviewed 25 Defense Programs activities. Of those 25 activities, we selected 5 for an indepth review. In four of the five cases, we found reason to question the amount requested in the budget.

DOE disagreed with our view that up to \$20 million could be reduced from its request because the Nevada Test Site lacks the physical infrastructure to conduct more than two subcritical tests per year, though Defense Programs plans to conduct three to four tests this calendar year. We would note that our findings are based on documents prepared by the contractor who manages the facility. DOE stated that we incorrectly stated that \$30 million was available from the Accelerated Strategic Computing Initiative because of a delay in the delivery of the Blue Mountain computer. However, we believe that DOE's comment that the technical concerns causing the delay have been addressed is misleading, as is its contention that the Blue Mountain system is back on its original performance curve. Instead, DOE has agreed to accept a different architecture than required in the original contract, while apparently agreeing to pay the full contract price.

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We performed our work from February through July 1998 in accordance with generally accepted government auditing standards. Because of the limited time available to complete this work, we did not verify the reliability of the information contained in DOE's financial management information system, which we used to analyze the carryover balances. However, DOE's financial management information system is the basis for its financial statements, which we recently gave an unqualified opinion to in our review of the consolidated financial statement for the federal government. (See enc. IV for a description of our scope and methodology.)

We plan to distribute additional copies of this report to the appropriate congressional committees and to the Secretary of Energy. We will also make copies available to others upon request. Please call me on (202) 512-3464 if you or your staff have any questions. James Noël, William Fenzel, Edward Zadjura, Kenneth Lightner, Chris Pacheco, James Charlifue, Frank Waterous, Tom Perry, John Cass, Gene Barnes, and Ilene Pollack were major contributors to this report.

Sincerely yours,

Associate Director Energy,

Resources, and Science Issues

Enclosures - 5

ENVIRONMENTAL MANAGEMENT'S AVAILABLE AND POTENTIALLY AVAILABLE FUNDING

Table I.1: Environmental Management, Available Funding, Fiscal Year 1999 Budget

Line-item number	Name or task/location	Funds available	Fiscal year 1999 funds requested	Reason why funding is available	
Privatization projects					
97-PVT-2	Advanced Mixed Waste Treatment Idaho National Engineering and Environmental Laboratory	\$30,000,000	\$87,252,000	Budget authority exceeds contractor's expected costs.	
98-PVT-2	Spent Nuclear Fuel Dry Storage Idaho National Engineering and Environmental Laboratory	30,000,000	\$30,000,000	Fiscal year 1998 budget authority adequately covers contractor's expected costs through fiscal year 2000.	
98-PVT-4	Spent Nuclear Fuel Dry Storage Savannah River Site	25,000,000	None	DOE does not expect to privatize this project. Available funds were appropriated in fiscal year 1998.	
Total, privatization		\$85,000,000			
Construction p	orojects				
92-D-182	Sewer System UpgradeIdaho National Engineering and Environmental Laboratory	\$400,000	None	Project was completed in the second quarter of fiscal year 1998.	
93-D-172	Electrical UpgradeIdaho National Engineering and Environmental Laboratory	160,000	None	Project was completed in late fiscal year 1997.	
94-D-415	Medical FacilitiesIdaho National Engineering and Environmental Laboratory	652,000	None	Project was completed in fiscal year 1997.	
94-D-407	Initial Tank Retrieval Systems Hanford Site	4,930,000	\$32,860,000	Funds expected to be unencumbered through the end of fiscal year 1999. Prior-year contingency and program management funds were not used as expected.	

Line-item number	Name or task/location	Funds available	Fiscal year 1999 funds requested	Reason why funding is available
96-D-471	CFC HVAC Chiller Retrofit Savannah River Site	\$8,000	\$8,000,000	Documentary support for the fiscal year 1999 budget request is for \$8,000 less than the request.
96-D-408	Tank Farm Services Upgrade Savannah River Site	5,174,000	\$4,512,000	The project's scope was reduced by \$5,000,000 and the total estimated cost was reduced by \$174,000. \$700,000 of the funds available are from fiscal year 1998.
98-D-401	H-Tank Farm Storm Water System UpgradesSavannah River Site	345,000	\$3,120,000	The fiscal year 1998 and fiscal year 1999 projected unobligated balances of \$305,000 and \$40,000, respectively, will not be needed.
99-D-402	Tank Farm Support Services F&H AreaSavannah River Site	580,000	\$2,745,000	The fiscal year 1999 estimated unobligated balance of \$580,000 is not needed.
Total, construction		\$12,249,000		

Note: Table I.1 includes funds for projects that the Department of Energy (DOE) acknowledges are not needed for their original purpose.

Table I.2: Environmental Management, Potentially Available Funding, Fiscal Year 1999 Budget

Line-item number	Name or task/location	Potential funds available	Fiscal year 1999 funds requested	Reason funding may be available
96-D-464	Electrical and Utility Systems Upgrade Idaho National Engineering and Environmental Laboratory	\$2,150,000	\$11,544,000 ·	Budget authority expected to be unencumbered at the end of fiscal year 1998.
SR-HL04	ITP/ESP/LW Operations Savannah River Site	5,300,000 to 11,300,000	\$64,300,000	DOE has suspended efforts to restart the In-Tank Precipitation Facility, which will reduce operations costs in fiscal year 1999. \$53,000,000 to \$59,000,000 is the minimum needed to maintain the facility safely.
Total potentially available		\$7,450,000 to \$13,450,000		

Note: Table I.2 includes funds for projects that may not be needed for their original purpose, but for which DOE has another purpose in mind.

ENCLOSURE II ENCLOSURE II

DEFENSE PROGRAMS' POTENTIALLY AVAILABLE FUNDING

Line-item number	Name or task/location	Potential funds available	Fiscal year 1999 funds requested	Reason why funding may be available
97-D-122	Nuclear Material Storage Facility Renovation Los Alamos National Laboratory	Up to \$4,300,000	\$9,164,000	Project delays have caused final design work to be carried over into fiscal year 2000 and significant cost uncertainties remain. As a result, DOE may not need up to \$4.3 million of its fiscal year 1999 request. Funding could be deferred.
95-D-102	Chemistry and Metallurgy Research Building Upgrades-Los Alamos National Laboratory	Up to 11,000,000	\$16,000,000	Detailed plans for fiscal year 1999 have not been defined or approved. Upgrades are on hold and some facility operations remain suspended. Until firmer support by DOE is available, funding above the fiscal year 1998 level of \$5 million is questionable.
	Subcritical Experiments Nevada Test Site	Up to 20,000,000	\$82,000,000	Four experiments are scheduled for fiscal year 1999. Based on the "lessons learned" from 2 fiscal year 1997 experiments, DOE can conduct only two because of limitations of the underground facility.
	Accelerated Strategic Computing Initiative Los Alamos National Laboratory	30,000,000	\$599,000,000	The second incremental delivery of the Blue Mountain computer did not meet specifications, and the third will be late. DOE withheld \$30 million in fiscal year 1998 funds that will carry over to fiscal year 1999.
Total		Up to \$65,300,000		

ENCLOSURE III ENCLOSURE III

CARRYOVER BALANCES AND GOALS

<u>Table III.1: Major Defense Programs--Status of Carryover Balances for Operating Funding Assuming 12% and 15% Carryover Goals</u>

Fiscal year 1998 beginning balances	Projected fiscal year 1999 beginning balances	Carryover balance goal assumption	Carryover balance goal for fiscal year 1999	Potentially available balance
\$548,397,502	\$787,636,291	12%	\$446,943,720	\$340,692,571
\$548,397,502	\$787,636,291	15%	\$558,679,650	\$228,956,641

<u>Table III.2: Major Environmental Management Programs--Status of Carryover Balances for Operating Funding Assuming 12% and 15% Carryover Goals</u>

Fiscal year 1998 beginning balances	Projected fiscal year 1999 beginning balances	Carryover balance goal assumption	Carryover balance goal for fiscal year 1999	Potentially available balance
\$791,840,425	\$801,226,070	12%	\$707,097,000	\$94,129,070
\$791,840,425	\$801,226,070	15%	\$883,871,250	(\$82,645,180)

Note: The potentially available carryover balances represent the amounts of projected carryover balances that exceed minimum goals for balances needed to meet program commitments. Thus, these balances represent a starting point from which to identify the amount that could actually be used to offset DOE's budget.

SCOPE AND METHODOLOGY

To identify fiscal year 1999 budget requests for funds that may not be needed, we focused on two programs—the Environmental Management (EM) program and Defense Programs (DP)—which, together, account for over one-half of the Department's budget. Specifically, we examined requests for funds to support EM's privatization initiative and specific construction and operating projects at EM's Hanford Site, Idaho National Engineering and Environmental Laboratory, and Savannah River Site. We also examined DP's requests for specific projects at the Los Alamos National Laboratory and the Nevada Test Site. To conduct our privatization review, we interviewed managers of projects slated for privatization at various facilities in the field. We obtained and reviewed program guidelines, budget request justifications, project plans and cost estimates, and other pertinent documents related to privatization. For our review of specific EM and DP construction and operating projects, we reviewed supporting documentation that justified specific project requests for funding. We also interviewed local DOE field office staff and contractors with responsibility for managing these projects and developing the fiscal year 1999 budget.

To identify carryover balances that may be available to reduce fiscal year 1999 funding requests, we estimated potentially available carryover balances for operating activities for EM and DP. To estimate the amount of potentially available operating fund balances for these programs at the beginning of fiscal year 1999, we (1) projected their carryover balances at the beginning of fiscal year 1999, (2) set carryover balance goals for each program, and (3) analyzed the difference between the goals and the projections to identify potentially excess balances.

We developed our projected total carryover balances for these programs by adding carryover balances at the beginning of fiscal year 1998 to new funding in fiscal year 1998. We then developed fiscal year 1998 cost estimates based on actual costs for the first 4 months of fiscal year 1998, as compared to actual costs for fiscal year 1997. We then subtracted fiscal year 1998 cost estimates from the total resources available to arrive at the projected carryover balances for the beginning of fiscal year 1999.

To develop the minimum level carryover balances needed to meet the programs' requirements, we started with goals based on an approach first developed by DOE's EM program of a 1-month carryover balance (or 8 percent) for operating funds and a 6-month carryover balance (or 50 percent) for capital equipment funds. However, beginning in fiscal year 1997, operating and capital equipment activities are no longer funded as separate categories. To account for this change, we used a new goal (12 percent) for calculating carryover balances that would be the equivalent of those calculated under the dual-percentage method of prior years. This is the same goal cited by EM in its fiscal year 1999 budget request. Recognizing that the split between operating

and capital equipment funds could vary somewhat from year to year, we also calculated the carryover balance goals at a 15-percent level.

We then compared projected fiscal year 1999 carryover balances with goals for the minimum level carryover balances needed to meet the programs' needs for fiscal year 1999. The resulting difference represents the pool of potentially available carryover balances for fiscal year 1999. In analyzing the differences, we adjusted the goals, where possible, to reflect individual programs' characteristics that would affect the amount of carryover balances needed to meet the programs' unique requirements. Specifically, because EM's privatization initiative involves the construction of waste treatment facilities by private companies, for the purpose of our analysis we treated the initiative in the same way as we treat other line-item construction projects. Specifically, we did not set a carryover balance goal; instead, we included these funds with EM's construction line items and reviewed them separately. For DP, we adjusted the analysis by removing funds for worker training because these funds are not managed by DP.

COMMENTS FROM THE DEPARTMENT OF ENERGY

Note: GAO comments supplementing those in the report text appear at the end of this enclosure.



Department of Energy

Washington, DC 20585

July 17, 1998

Mr. Victor Rezendes
Director, Energy Resources and
Science Issues
Resources, Community and
Economic Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Rezendes:

This letter transmits the Department of Energy's (DOE) formal comments on the draft report, "Department of Energy: Office of Environmental Management and Defense Programs' Fiscal Year 1999 Budget Request," GAO/RCED-98-213R. As we have discussed, the Department has serious concerns regarding this review. We appreciate that you are now taking steps to document our comments as part of your final report; however, the impact of your review is already reflected in Congressional action and the report continues to rely upon the same flawed methodologies as earlier drafts. Our detailed comments are enclosed; however, we have two main concerns.

See comments 1, 2, 3, and 4.

We believe the GAO report provides a misleading and inaccurate picture. Simply put, the Department does not have the funds available that are implied to offset our FY 1999 budget request. Doing so amounts to an across the board reduction. The report characterizes significant uncosted and unobligated balances for the Offices of Defense Programs and Environmental Management as "potentially available." This can easily be misinterpreted to mean that, in the case of Defense Programs, between \$229 million and \$341 million might be used to offset the Department's FY 1999 budget request without disturbing program implementation. In fact, there are essentially no "excess" balances that could be taken without programmatic impact.

See comment 1.

We believe the GAO report does not present the full story. Second quarter costing information we supplied at the request of GAO showed a higher costing rate than that predicted by the GAO report; however, this data has not been reflected in the report. In addition, the report does not mention the Department's efforts to improve management of our carryover balances which resulted in a \$5.8 billion reduction in carryover balances since FY 1994.

Thank you for the opportunity to comment on your report.

Sincerely,

Michael L. Telson Chief Financial Officer

Enclosure

U.S. DEPARTMENT OF ENERGY Detailed Comments on GAO Report, GAO RCED-98-213R

GENERAL COMMENTS

See comments 2 and 3.

The Department disagrees with the overall methodology used in the GAO report to analyze carryover balances. GAO's approach relies on the application of a so-called "percentage goal" that is not based on any analysis and does not take into consideration the unique operating characteristics of the Department of Energy. The methodology produces broad estimates of "potentially available" balances, which are not supported by any further analysis or consideration of actual performance in managing uncosted balances. The methodology used in the report is the same approach that the Department was criticized for using by GAO in FY 1996, claiming that it was ineffective and relied on "broad estimates" that did not give any insight into the true availability of funds. It is, therefore, very disturbing that this report adopts the same basic approach.

See comment 4.

The GAO report does not identify specific areas where they believe balances may be available. This is partly due to the fact that no review of the programmatic activities was performed to determine if, in fact, there were any "potentially available" balances, and partly because the analysis was conducted at the overall program level. The fact that specific areas were not identified shows the lack of analytical support for the report's conclusions. For example, the report predicted potentially available balances for DP of between \$229 million and \$341 million based on their calculations. However, the review was only able to question the availability of \$65 million from real DOE projects, the majority of which the Department is able to justify. This is nowhere near the predicted potentially available and clearly shows the arbitrary nature of the report's numbers.

See comment 5.

The GAO report does not present a balanced view on the management of the Department's carryover balances. The Department of Energy has made great progress in its analysis, management, and reduction of uncosted balances over the past several years. Unfortunately, the GAO approach may foster a false perception that the Department's uncosted balances are not being managed effectively. Below we summarize DOE's significant accomplishments in this area:

- Developed a comprehensive methodology for the analysis of uncosted balances
- Reduced total uncosted balances by \$3.8 billion since FY 1994 (38 percent reduction)
- Reduced total uncosted balances by \$440 during FY 1997
- Reduced unobligated balances by \$2 billion since FY 1994 (57 percent reduction)
- Identified \$146.2 million of prior year balances to offset FY 1998 requirements
- Identified \$49.3 million to offset the FY 1999 budget request

These reductions show the increased emphasis DOE is putting on better understanding and managing its uncosted obligations. The ultimate goal is to determine the "right levels" of uncosted balances and manage to those targets. At present, the Department believes it has achieved a level of uncosted balances consistent with sound management. Significant budget reductions based on the use of uncosted balances would be detrimental to the Department's ability to accomplish its missions in an effective manner.

See comment 2.

In response to the FY 1996 GAO report, the Department has worked diligently to develop an approach to analyzing uncosted balances to yield reduced balances. In addition to utilizing cost (rather than total obligational authority) as a base, the Department's methodology identifies percentage thresholds based on sound financial management practices for specific types of financial/contractual arrangements and which reflect the unique procurement and financial characteristics of each program. This allows the Department to evaluate its overall performance based on the variance between the calculated thresholds and actual balances, and to establish more meaningful benchmarks for desired uncosted balance levels. The Department's approach also analyzes these balances down to a level below the overall programmatic levels, and requires specific justifications for those balances exceeding targets. This ensures that uncosted balances are managed effectively and drives reductions in overall balances. GAO has not disputed this methodology. This approach, and results of the last analysis, are documented in the Department's "Report on Uncosted Balances for Fiscal Year Ended September 30, 1997." We believe GAO reviews should adopt the DOE approach for analyzing carryover balances.

The GAO report attempts to lend validity to its analysis by inappropriately linking aspects of the GAO methodology to DOE.

See comment 2.

A) In Enclosure IV, "Scope and Methodology", the report states...

"To develop the minimum level carryover balances needed to meet the program's requirements, we started with goals based on an approach first developed by DOE's EM program of a 1-month carryover balance (or eight percent)...."

This statement implies that the arbitrary goals set in the report are consistent with DOE methodologies. This is untrue. The EM approach described in the report was an internal gauge for that specific program which was not designed to identify a "minimum level" required to meet the program's requirements as stated. Furthermore, the approach was never a Departmental standard and has since been abandoned by EM and the Department as a result of GAO criticism that the approach was ineffective.

B) In Enclosure IV, "Scope and Methodology," the report states...

"Recognizing that the split between operating and capital equipment funds could vary somewhat from year-to-year, we also calculated the carryover balance goals at a 15 percent level. This is the same level used by DOE for its management and operating contractors" (M&O).

This statement is untrue. In the DOE analysis methodology, we do not combine operating and capital equipment into one percentage. Capital equipment is analyzed separately at 50 percent and operating is at 15 percent. However, even for operating, we disagree that the 15 percent used in the review is comparable. DOE is on record that the Department: a) applies the 15 percent M&O operating percent goal against a cost base, not total obligational authority as done in this review; and b) DOE distinguishes between uncosted and unobligated and this was not done in this review. Application of the DOE 15 percent goal against the

appropriate cost base yields extremely different results than the approach used in this review.

In short, the Department maintains strong disagreement with the methodology used in this review and the arbitrary percentages that were applied. Furthermore, the percentages used are not based on any DOE accepted approach and should in no case be presented as such. It is the Department's opinion that this approach should be rethought and discontinued.

DEFENSE PROGRAMS SPECIFIC COMMENTS

Overall

See comment 6.

The General Accounting Office (GAO) has reviewed Defense Programs' request for FY 1999 Appropriations. After a thorough review of our budget request to carry out the Stockpile Stewardship mission, GAO questioned the funding requested for four specific activities reflecting \$65 million of our \$4.5 billion request, less than one and a half percent of our total program. We consider this to be a significant endorsement of our budgeting and planning efforts. Planning for FY 1999 has been a very difficult task, as we sought to maintain full support for the Comprehensive Test Ban Treaty, consistency with other Administration policies and guidance, support developing Department of Defense requirements, and insure our ability to maintain the safety and reliability into the future, all while planning and carrying out significant reductions in our federal and contractor staff.

Nonetheless, we must take serious issue with several items in the GAO report. First, GAO states that "Defense Programs may have from \$229 million to \$341 million in potentially available carryover balances for operating funds at the beginning of fiscal year 1999" (emphasis added). In fact, GAO has been provided substantial factual evidence that these "excess" balances simply do not exist. GAO's continued insistence, in the face of all evidence to the contrary, to refer to potentially available balances that DP may have, is counterproductive to effective dialogue between our organizations and with the Congress. After having found little to contest in our programmatic request for FY 1999 to maintain the Nation's nuclear weapons' stockpile, GAO's unconfirmed financial analysis is resulting in Congressional decisions not to appropriate funding needed to support those same programs—programmatic reductions being the end result of an appropriation which assumes the use of prior year balances that simply do not exist.

See comments 7 and 8.

Also, of the four programmatic activities that the review takes issue with, the conclusions are simply wrong in two cases. The review incorrectly reports that up to \$20 million can be reduced from our request since the Nevada Test Site lacks the physical infrastructure necessary to carry out more than two subcritical tests a year, despite the fact that DP plans to conduct three to four tests this calendar year. And the review incorrectly states that \$30 million is available in the Accelerated Strategic Computing Initiative request on the basis of schedule slippage in the delivery of the Blue Mountain computer, despite the fact that the system is on schedule and budget.

It is our hope that GAO will recognize these factual errors in their analysis and correct their report to Congress, accordingly.

The following are more complete comments on these items.

Carryover Balances

Defense Programs takes strong exception to the review's analysis and conclusions on the availability of uncosted funds from prior years (carryover balances) to reduce Defense Programs' FY 1999 budget request. Our own analysis, which was provided to the GAO staff, shows that we will not have any "excess" balances and in fact will be below Departmental targets for carryover balances by about \$86 million. We believe review's analysis is faulty in three areas. First, the projected FY 1998 costs are unreasonably low; second, the method for establishing carryover balance goals and for analyzing balances does not have as firm an analytical base as does the Department's standards and methodology (developed in response to and as a direct result of prior reviews); and third, there was no attempt to independently confirm the existence of available balances through other confirmatory program evidence.

See comment 1.

Defense Programs' cost projection for FY 1998 is more than \$220 million higher than that of GAO. This is a conservative estimate based upon detailed projections received from our contractors, who are responsible for executing our program, discounted three percent by us to reflect historical experience that our contractors' projections tend to run slightly higher than the actual costs for the year. Using our cost projection, our estimated ending carryover balance is, thereby, substantially lower then the GAO estimate.

Actual cost experience through the first eight months of FY 1998 validates our cost projection and indicates that it is achievable. Actual costs through the month of May (two-thirds of the fiscal year) are ahead of our conservative cost projection, putting us on track to meet or exceed our projection.

The review did not use or even at least acknowledge our cost estimate and ignored later second quarter cost data provided by the Department at the specific request of the GAO staff to validate their cost estimate. If considered, the later data would have resulted in a substantially higher cost estimate (using the GAO methodology), by about \$100 million, with an equal reduction in uncosted balance estimate. This calls into question the validity of the methodology if substantially different cost estimates can be calculated by just varying the data point used to make the projection (six or seven months of data rather than the four months used by GAO). (Our cost projection, which is not dependent on a strictly mathematical calculation as is GAO's and which we provided to the GAO staff, is better.) This also shows that the review did not take into consideration data that would materially change information and conclusions they have already presented to Congressional staff members and used by Congress in marking up our FY 1999 budget request.

See comment 2.

Defense Programs uses the Department's standards and methodology for establishing carryover targets and analyzing uncosted balances. We strongly believe these are better than the methods used in this analysis. These standards and methodology were developed as the result of a 1996 GAO report recommendation and have a firm analytical base on which they were developed. These standards recognize and reflect the characteristics of the different fund types and financial and contractual arrangements in place within the Department and Defense Programs. As best as

we can tell, the GAO target goal percentages are arbitrary and are not backed up by any analytical basis (as the GAO staff has never provided any analytical details). This is the very kind of thing that GAO criticized the Department for using in the past.

See comment 4. The reviewers made no effort to confirm, through other independent indicators, that our uncosted balances would increase by 55 percent in one year, as the GAO estimate would have happen. This level of increase defies any reasonable logic, historical experience, and on-going program performance. As it is, there are no programmatic indicators (employment decreases, slipped milestones, etc.) to independently validate or substantiate the projections and resultant conclusions. Also, after considering the increase in funding available to cost from FY 1997 to FY 1998, our uncosted balance estimate maintains the same relative uncosted balance as existed at the end of FY 1997.

We believe the GAO report is misleading and does not provide a complete and accurate picture of our potential uncosted balance situation. The GAO has stated directly on several occasions that they are an information source. In our opinion, this requires presenting both sides of the story and not just the side that ends in potential funding reductions. We are disappointed that the this review does not take a balanced approach by acknowledging that we have materially different cost projections and that the Department has developed, at GAO's recommendation, a system for establishing carryover funding goals and for analyzing carryover balances. We are further disappointed, and believe it is misleading, that the review did not show the results of using our cost projection and the Department's standards and methodology and compare them with their own. It implies that the Department has done and is doing nothing, which is far from reality.

As a final note, there is an incorrect number in Enclosure III, Table I of the report. The \$548 million shown as the FY 1998 beginning balance includes about \$5 million that is managed by organizations other than Defense Programs.

Nuclear Materials Storage Facility Renovation -- The \$4.3 million at issue is funding requested to minimize delay between the design and construction phases of the project.

Chemistry and Materials Research Building Upgrades — The funding at issue is related to keeping the project on schedule. Since the schedule is under review, we would not counter this recommendation at this time.

first quarter of FY 1999. It should be noted that most of the work and expenditures for the

Subcritical Experiments — The review's assertion (pages 2 and 4, and Enclosure II, Table I) that, based on FY 1997 experience, the Department can conduct only two subcritical experiments in a year because of underground facility limitations is erroneous. Our plans to conduct three or four subcritical experiments in the U1a complex in FY 1999 can be achieved. While basing the assumption on the fact that only two subcritical experiments were conducted in FY 1997, the review fails to point out that delays in conducting the subcritical experiments, well into FY 1997, was due to non-operational issues, such as the delay in approval of the Environmental Impact Statement and resolution of transparency issues. At no time during FY 1997 or FY 1998 have delays been caused by constraints or limitations of the underground U1a facility. We are currently on track to conduct three subcritical experiments in FY 1998. A fourth is also planned for the

experiment scheduled for the first quarter of FY 1999 will be committed in FY 1998 and conduct of the experiment will not burden the FY 1999 plans and operations for three to four experiments during FY 1999. Our near-term performance has been, and should continue to be, consistent with the annual rate of three to four experiments per year barring reductions in funding and resource allocation.

The proposed improvements and additional mining operations planned for U1a have been carefully laid out and designed specifically not to interfere with the activities necessary to conduct the planned three to four subcritical experiments and is consistent with experiment operations and mining expansion. Both can be accomplished at the same time without one interfering with the other. For example, significant mining operations have been conducted in both drifts where the subcritical experiments are conducted with no impact on our ability to conduct the experiments. Other improvements will include the installation of a uninterruptable power supply, upgrades to the phone system, as well as additional mining activity.

In summary, appropriate upgrades to the U1a complex have already been implemented on an effective and non-interference basis within the scope of the current experimental plans with no impact on our ability to conduct subcritical experiments. Future upgrades will be conducted in the same manner.

Enclosure II, Table I, references "lessons learned," but fails to state where these lessons learned came from or what document they can be found in. DOE is unaware of any document with information that would lead one to the conclusions reached by the GAO in its draft report.

See comment 8.

Accelerated Strategic Computing Initiative (ASCI) — The report implies that, because there was a delay in making payment on the Blue Mountain computer, the funding for that payment is not needed for the Blue Mountain computer and is available to offset the FY 1999 budget. There was only a delay in the payment not a reduction in the amount to be paid. The technical concerns that caused the delay have been addressed and allayed by rigorous involvement with the vendor, Los Alamos National Laboratory, and Department personnel. The Blue Mountain system is back on its original planned performance curve and time table and the costs of the system, as well as the ASCI program, have not decreased. In fact, the payment schedule for the Blue Mountain System totals over \$10 million in the last quarter of FY 1998. Using any of the Blue Mountain funds to offset the FY 1999 budget request would be a reduction to the ASCI program.

The following are GAO's comments on DOE's letter dated July 17, 1998.

GAO'S COMMENTS

1. With regard to how our methodology made cost projections, DOE argues that our initial estimates were too conservative and that we ignored later second quarter cost data it had provided us which, if used, would have resulted in higher cost projections and lower potentially available balances. When we initially prepared our cost projections and presented them to DOE officials for their comment in March 1998, prior to briefing congressional committees, DOE officials told us that they had not performed any fiscal year 1998 cost projections for Defense Programs but that cost projections would be due from the field by the end of March 1998. Given the congressional committees' need for the information during the end of March or early April, we chose to use the cost projections we had developed.

Because we were concerned that our projections were showing that Defense Programs was not spending its funds as fast as it had in prior years, we compared the results of using our projection approach with Defense Programs' actual cost experience in prior years. We found that our approach consistently overestimated the amount of costs Defense Programs would actually incur. Since overestimating Defense Programs' projected costs would result in underestimating its potentially available balances, we believed that using the projections we developed allowed an appropriate margin for error. We would note that when we presented our results to DOE officials, they stated that the results confirmed their concerns that their rate of costing was running behind.

At the request of congressional staff, we did update our analysis using more recent cost data Defense Programs supplied us. Our results showed that based on Defense Programs' costs as of April 30, 1998, Defense Programs was still spending funds at a slower rate than in 1997, but that Defense Programs' potentially available balances may now range from about \$336 million if a goal of 12 percent is assumed to about \$224 million if a goal of 15 percent is assumed. Originally, we estimated that Defense Programs would have about \$341 million in potentially available carryover balances at the beginning of fiscal year 1999 if a goal of 12 percent is assumed but about \$229 million if a 15-percent goal is assumed. DOE asserts that it will not have excess balances based on the cost projections of its contractors and its ability to increase its rate of costing during the rest of the fiscal year. However, we believe that DOE and its contractors both have a natural incentive to overproject their costs and to believe that they can spend money faster. We believe that relying on projection techniques based on past spending patterns, as we have done, results in estimates that are more balanced.

2. DOE asserts that the carryover balance goals we use-12 and 15 percent for operating funds-do not have as firm an analytical base as the Department's. However, we have

consistently employed the same general goals DOE programs have developed and adapted them to fit our methodology. Recognizing, as we have over the years, that the results of our analysis "represent only a starting point from which to identify the amount that could be used to offset DOE's budget," we employed several goals in this year's analysis to suggest that there is a range of potentially available balances that may need to be evaluated.

More importantly, DOE criticizes our methodology because (1) we apply the goals to DOE's total obligational authority⁶ while DOE chooses to apply the goals to its costs and (2) we project carryover balances while DOE evaluates its prior year performance. This methodological disagreement with DOE has existed for several years, beginning with our April 1996 report on carryover balances. We continue to believe our approach is the correct one. Specifically, applying the goals to DOE's total obligational authority—essentially the funds the Congress has given DOE to spend—gives stable goals against which to judge DOE's performance. It also accounts for DOE's often large unobligated balances. If the goals are applied to costs, as the amount spent goes up, the carryover balance goals also go up, creating the potential for an apparent shortfall in carryover balances. In our view, this approach can create an incentive for DOE and its contractors to spend funds to create the appearance of a need for additional funds to meet their carryover balance goals. With respect to projecting balances, we continue to believe, as we recommended in our 1996 report, that projections are relevant in order to determine what the balances may be available for the future budget under consideration.

- 3. DOE is not correct when it states that we are using a methodology similar to the one we criticized it for using. Our 1996 report found that a report on carryover balances DOE was producing at the time did not provide an adequate approach for analyzing carryover balances and recommended that the Department (1) establish carryover balance goals, (2) project carryover balances, and (3) justify the differences between the goals and the projected balances. Because we follow these three steps in this report, we believe our methodology is consistent with our April 1996 recommendation. While DOE has worked to develop goals, as noted above, it still does not project its balances; therefore, we do not believe that DOE has fully complied with our recommended approach.
- 4. Regarding DOE's concern that we did not identify specific areas that could be cut or confirm our results, we did, in fact, as part of our overall methodology, examine specific construction and privatization projects in both Defense Programs and Environmental Management. We recognize that the use of our approach for analyzing operating funds does produce broad estimates and consistently have stated that these estimates represent

⁶This amount includes the adjusted new obligational authority for a fiscal year plus any unobligated balances carried over into that fiscal year.

a starting point subject to "further justification by DOE." We believe that, as the agency requesting the funds, DOE bears the burden of proof that it has adequately managed its programs and that it is not carrying over funds into the upcoming fiscal year that are in excess of those needed to successfully conduct its programs.

- 5. DOE believes that we do not present a balanced view of the progress it has made in reducing its carryover balances. We would agree that DOE has made progress, and the reports we have issued over the last several years have shown that DOE's carryover balances have been declining. However, we believe that it is important to point out that many of the reductions DOE is claiming credit for were the result of congressional action to reduce the Department's carryover balances.
- 6. With respect to DOE's statement that our analysis is an endorsement of its fiscal year 1999 budget request for Defense Programs, we want to make clear that the results of our review are not such an endorsement. Our annual budget work focuses only on selected activities for the fiscal year budget requests we are reviewing. Because of staffing and time constraints, we did not review the entire fiscal year 1999 Defense Programs budget request as DOE states in its comments. We were able to review 25 Defense Programs activities. Of those 25 activities, we selected 5 for an in-depth review. In four of the five cases, we found reason to question the amount requested in the budget.
- 7. Regarding DOE's concern about our findings on its subcritical experiments at the Nevada Test Site, DOE states that we incorrectly point out that up to \$20 million could be reduced from its request since the Nevada Test Site lacks the physical infrastructure necessary to carry out more than two subcritical tests per year, though Defense Programs plans to conduct three to four tests this calendar year. DOE also states that past testing delays were the result of nonoperational issues such as delay in the approval of the environmental impact statement and that improvements and mining operations planned for the facility were designed to not interfere with testing activities. Finally, DOE denies any knowledge of a lessons-learned document that discusses limits on the number of tests that could be conducted.

In our view, the fact that Defense Programs has plans to conduct three or four tests in 1998—or in any year—is not enough to guarantee that the tests will happen. Defense Programs has planned to conduct three or four tests per year for the past several years; however, 1997 was the only year in which any tests were conducted. Defense Programs' inability to conduct more than two subcritical tests during fiscal year 1999 was not our opinion, but rather the opinion of the contractor that operates the facility where the subcritical tests are conducted. This opinion was expressed in a lessons-learned briefing by the contractor that manages the facility to representatives of DOE's Nevada Operations Office and Los Alamos National Laboratory. The briefing stated that, based on the two subcritical experiments conducted in 1997, the facility will be able to support only two of

the four tests planned for fiscal year 1999, while performing the upgrades and expansion activities necessary to conduct the experiments scheduled for the future.

8. DOE states that we are incorrect in stating that \$30 million is available from the Accelerated Strategic Computing Initiative because of a delay in the delivery of the Blue Mountain computer. DOE also states that the technical concerns causing the delay have been addressed, the Blue Mountain system is back on its original planned performance curve and timetable, and the costs of the system have not decreased. DOE states that using any of the \$30 million to offset its fiscal year 1999 budget request would be an actual decrease in the overall Accelerated Strategic Computing Initiative budget.

In April 1998, when we briefed congressional committee staff on the results of our work, the Blue Mountain supercomputer was not being accepted by DOE because it had not been delivered in accordance with contract specifications. More significantly, however, the contractor had informed DOE that it would be unable to deliver the full-scale system in the architecture required by December 1998, as required by its contract with DOE. The contractor informed DOE that it had been unsuccessful in developing a new generation computer chip that would process information at higher speeds. This improved chip was intended to reduce the total number of chips needed to meet the required full scale performance level, thus simplifying the architecture of the computer and making it easier to develop large-scale models for the machine.

Furthermore, DOE's comment that the technical concerns that caused the delay have been addressed is misleading as is its contention that the Blue Mountain system is back on its original performance curve. In fact, DOE has agreed to accept a different architecture than required in the original contract, while apparently agreeing to pay the full contract price. DOE is allowing the contractor to deliver a larger number of the older, slower chips to make up for the lack of a new generation chip. While technically this will achieve the same total performance level in terms of computing power, it will result in a more complicated architecture that will be more difficult to program and will not represent another step forward in the state of the art.

Since, a significant portion of this contract is paying for development of new state-of-theart supercomputer technology as well as the delivery of specific supercomputer hardware, it was this development failure along with the failure to deliver the interim computer hardware in the required architecture that caused DOE to withhold about \$30 million in fiscal year 1998 payments. At best, DOE's argument would seem to support allowing an additional \$10 million to be used for the fiscal year 1998 payments while at the same time raising questions as to why DOE is continuing with this contract.

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