United States General Accounting Office

GAO

Report to the Chairman, Committee on the Budget, House of Representatives

January 2003

LONG-TERM COMMITMENTS

Improving the Budgetary Focus on Environmental Liabilities

GAO-03-219

January 2003

LONG-TERM COMMITMENTS

Improving the Budgetary Focus on Environmental Liabilities

GAO Accountability • Integrity • Reliability

Highlights

Highlights of GAO-03-219, a report to the Chairman of the Committee on the Budget, House of Representatives

Why GAO Did This Study

Although environmental liabilities resulting from federal programs and activities represent the third largest category of the federal government's liabilities, the current cash- and obligation-based budget does not provide information on estimated cleanup costs before waste-producing assets are purchased. As a result, policymakers do not have the opportunity to weigh the full costs of a proposal with their judgment of its benefits. The Chairman of the House Committee on the Budget asked GAO to examine and report on various ways budgeting might be improved for environmental cleanup costs, including some of the benefits, limitations, and challenges associated with each.

What GAO Recommends

GAO recommends that the Director of the Office of Management and Budget (OMB) require supplemental reporting in the budget to disclose future environmental cleanup/disposal costs for new acquisitions. Agency and OMB officials should consult with legislative branch officials to ensure that useful information is provided to congressional decision makers.

www.gao.gov/cgi-bin/getrpt?GAO-03-219

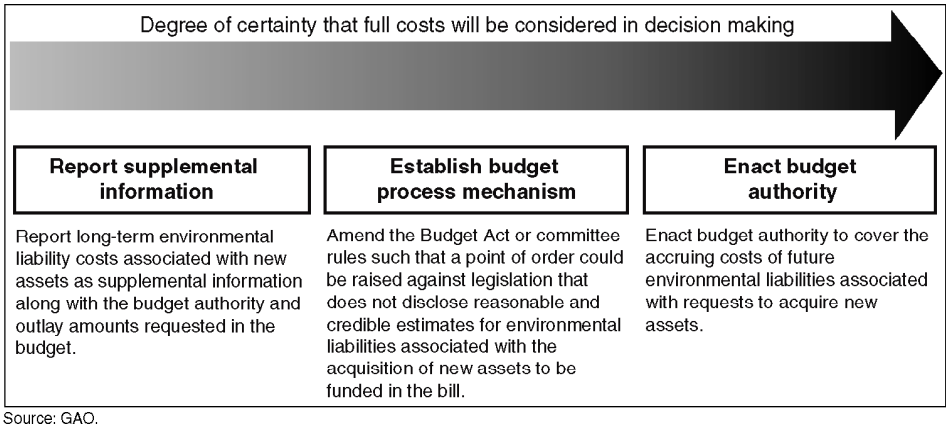
To view the full report, including the scope and methodology, click on the link above. For more information, contact Susan Irving on (202) 512-9142 or irvings@gao.gov.

What GAO Found

The federal government is legally required to clean up hazardous wastes that result from its operations. Agencies are currently required to report these environmental liabilities in their financial statements, but these estimates are not recognized until after a waste-producing asset is placed into service. Although agencies are supposed to consider cleanup and disposal costs associated with these assets as part of the acquisition process, they typically do not request the related budget authority until many years after the government has committed to the operation creating the waste, when cleanup is imminent.

Alternative approaches to promote up-front consideration of the full costs of environmental cleanup and disposal for assets being proposed for purchase fall along a continuum ranging from supplemental information to enactment of additional budget authority. (See figure below.) While each approach has potential benefits and challenges, agencies' lack of experience in estimating future cleanup/disposal costs up front suggest starting at the more modest end of the continuum—providing supplemental information to decision makers. Eventually, however, accruing budget authority for the tail-end cleanup/disposal cost along with the front-end purchase cost estimates would do the most to ensure that these costs are considered before the government incurs the liability.

Continuum of Alternative Approaches to Improve Budgeting for Environmental Liabilities



Source: GAO.

Contents

Abbreviations

CBO	Congressional Budget Office
DERP	Defense Environmental Restoration Program
DOD	Department of Defense
DOE	Department of Energy
EM	Environmental Management
EPA	Environmental Protection Agency
FUDS	Formerly Used Defense Sites
NRC	Nuclear Regulatory Commission
O&M	Operation and Maintenance
OMB	Office of Management and Budget

GAO
Accountability * Integrity * Reliability

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

January 24, 2003

The Honorable Jim Nussle
Chairman
Committee on the Budget
House of Representatives

Dear Mr. Chairman:

The federal government undertakes a wide range of programs and activities—such as federal employee pensions, retiree health, and federal credit—that may create commitments for future spending. Environmental liabilities,[1] which result from some federal programs and activities, are one example of these future commitments and represent the third largest category of the federal government's liabilities reported in the 2001 *Financial Report of the U.S. Government*.[2] Federal, state, or local laws and regulations require cleanup that may be done many years after the activity creating the environmental liability is undertaken. However, because the federal budget is primarily calculated on a cash basis, information on the estimated cleanup costs is not included in the budget when budgeting decisions are being made about such activities.

[1]Federal accounting standards define environmental liabilities as the cleanup costs of removing, containing, and/or disposing of (1) hazardous waste from property or (2) material and/or property that consists of hazardous waste at permanent or temporary closure or shutdown of associated property, plant, and equipment. Hazardous waste is a solid, liquid, or gaseous waste or combination of these wastes that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed. As used in this report, it may include such things as nuclear or toxic waste or unexploded ordnance, among other things. Cleanup may include, but is not limited to, decontamination, decommissioning, site restoration, site monitoring, closure, and postclosure costs. Federal accounting standards define a liability as a probable future outflow of resources due to a past governmental transaction or event.

[2]The two largest liabilities are federal debt securities held by the public and federal employee and veteran benefits payable.

You asked us to examine and report on various ways budgeting might be improved for environmental cleanup costs, including some of the benefits, limitations, and challenges associated with each. Accordingly, we reviewed current budgeting practices at the departments of Energy and Defense, since they account for about 98 percent of the government's reported environmental liabilities. In addition, we discussed alternative approaches with staff within these departments, as well as staff in the Office of Management and Budget (OMB) and the Congressional Budget Office (CBO). The focus of this report is forward-looking. That is, it explores alternative ways to ensure that the cleanup costs of hazardous waste are considered by decision makers before the government has committed to the operation creating the waste.[3]

Results in Brief

The federal government is legally required to clean up hazardous wastes that result from its operations. Although these cleanup costs represent the third largest category of federal liabilities, they are not usually addressed until many years after the government has committed to the operation creating the waste. Under current budget guidance, agencies include in their budget request for a given year only the funds they expect to obligate for cleanup during that budget year. As a result, at the time decisions are being made, the full costs of a program that will have cleanup costs are not recognized in the budget, nor are estimates of these future costs provided elsewhere in budget documents. The budget does not provide policymakers the information to compare the full costs of certain programs with their judgment of benefits.

Once waste-producing assets are acquired and placed into service, agencies must estimate and report in their financial statements the environmental liabilities associated with both retired assets and those that are currently being used in support of federal programs and activities.[4]

About 98 percent of the $307 billion in environmental liabilities that was reported in fiscal year 2001 financial statements was associated with the

[3]We recently issued a report that provides a broad overview of various program activities, such as environmental liabilities, that may expose the government to future spending. See U.S. General Accounting Office, *Fiscal Exposures: Improving the Budgetary Focus on Long-Term Costs and Uncertainties*, GAO-03-213 (Washington, D.C.: Jan. 24, 2003).

[4]These retired assets include such things as excess facilities at the Savannah River Site in South Carolina and the Presidio military base in California.

departments of Energy and Defense. Estimates of disposal and cleanup costs for new assets are not, however, routinely estimated before making the commitment to purchase the asset. Given the large number of years that frequently occur between acquisition and cleanup, estimates for new assets are likely to change during that period for a variety of reasons, including changes over time in technology and regulatory standards. This, however, is also true to some degree when agencies estimate cleanup costs at the end of asset lives when they begin to request funding for the cleanup. While cleanup cost estimates made before committing to purchase an asset would need to be periodically reassessed, they would provide more information than is currently provided.

Alternative approaches exist to promote more complete consideration of the full costs of environmental cleanup and disposal associated with the acquisition of new assets. They fall along a continuum representing the degree of certainty that the costs will be considered in decision making. At one end of the continuum, the government could increase awareness of full costs by reporting the long-term environmental liability costs associated with new assets as supplemental information along side budget authority and outlay figures in the budget. While this puts it closer to the budget numbers than would a separate report, there is no assurance that this information will be considered in budget decision making. However, it will help ensure that information is generated and made more transparent. Alternatively, budget process mechanisms could be established to require explicit disclosure and prompt consideration of the full costs of environmental liabilities associated with a proposed asset acquisition. For example, Congress could revise its rules to permit a point of order against legislation that does not disclose estimates for environmental liabilities associated with the acquisition of new assets to be funded in the bill. Such a process mechanism might increase attention paid to these costs even though they would not actually require funding until far into the future. Finally, it is generally assumed that costs included in primary budget data receive the most attention.[5] At this end of the continuum, budget authority needed for environmental cleanup for new assets could be accrued in the budget. OMB is currently working on a proposal along these lines. It is important to note that this approach would not change the costs of future cleanup—these have already been created by the decision to acquire the

[5]In this report, primary budget data refers to budget authority, obligations, outlays, and the deficit/surplus.

asset. Rather, it would only shift the timing of when the costs are recognized.

No proposal can be viewed independently of associated implementation and estimation issues. For example, clear definitions for hazardous waste need to be developed as well as mechanisms for dealing with the inevitable cost reestimates. As a first step, OMB should require supplemental reporting in the budget to disclose future environmental cleanup/disposal costs for new acquisitions. Also, OMB should discuss with Congress how best to make the information useful to congressional decision makers. Thus, even if the ultimate goal would be to include cleanup costs in budget authority requests for new assets, implementation and estimation challenges may suggest starting with the supplemental information approach.

Background

Historically, federal outlays and receipts generally have been reported on a cash basis. That is, receipts are recorded when received and outlays are recorded when paid without regard to the period in which the taxes and fees were assessed or the costs resulting in the outlay were incurred. This has an advantage in that the deficit (or surplus) closely approximates the cash borrowing needs (or cash in excess of immediate needs) of the government.[6] However, over the years analysts and researchers have raised concerns that the current cash- and obligation-based budget does not adequately reflect the cost of some programs—such as federal credit or insurance—in which the government makes a commitment now to incur a cost, but some or most of the cash flows come much later. This means that for some programs the current cash- and obligation-based budget does not recognize the full costs up front when decisions are made or provide policymakers the information to compare the full costs of a proposal with their judgment of its benefits. Programs such as federal employee pensions, retiree health care, and environmental liabilities are examples where the cash basis of accounting does not represent the government's full commitments.

[6]Minor exceptions to this include changes in the Department of the Treasury's cash balances, outstanding payment obligations, and net disbursements by the government's loan guarantee and direct loan accounts.

Environmental liabilities are the result of federal operations that create hazardous waste that federal, state, or local laws and/or regulations require the federal government to clean up. Because these cleanup costs are not usually paid until many years after the government has committed to the operation creating the waste, policymakers have not been provided complete cost information when making decisions about undertaking the waste-creating operation. Although all agencies are not yet in compliance, current federal accounting standards require agencies to estimate and report in their financial statements their liability for cleanup costs when they are deemed probable and measurable. Traditionally, budget guidance has required agencies to estimate the funds expected to be obligated for cleanup activities during the budget year in which the funds are needed.[7] However, in recent years OMB also has issued guidance for agencies to estimate life-cycle costs when purchasing capital assets. Among the items to be included in the total amount of these life-cycle costs are decommissioning and disposal costs. The life-cycle cost estimates are reported to OMB in budget Exhibit 300 and do not separately break out cleanup and disposal costs. The exhibits are for OMB's informational purposes only; they are not included in the President's budget request or agency's budget justification provided to Congress. Department of Energy (DOE) and Department of Defense (DOD) officials told us that the cleanup portion of these total costs has traditionally not been separated out or identified at the time of purchase. This is because estimates developed at that time were very preliminary, often based only on a percentage of total costs rather than specific unit costs.

Objectives, Scope, and Methodology

To examine ways that budgeting might be improved for environmental liabilities, we focused on three key questions: (1) What are the federal government's reported environmental liabilities? (2) How are environmental liabilities currently valued for financial statements and budgeted at selected programs within DOD and DOE? and (3) How could budgeting for these environmental liabilities be improved?

To determine the federal government's reported environmental liabilities, we extracted data from agencies' fiscal year 2001 consolidated balance

[7]OMB Circular A-11 refers to a 1978 Executive Order that requires agencies to prepare annual cost estimates for the control of environmental pollution and to ensure that sufficient funds for compliance with applicable pollution control standards are requested in the agency budget.

sheets. Because this analysis showed that about 98 percent of the government's reported environmental liabilities were associated with DOD and DOE, we focused our review on the practices of these two departments. We reviewed published reports, related guidance, and budget and financial statement documentation from each agency. We also interviewed DOD, DOE, and OMB staff to discuss current budget practices.

To develop alternative approaches to improve budgeting for environmental liabilities, we discussed ideas with staff from DOD, DOE, OMB, and CBO. We also met with appropriations subcommittee staff with jurisdiction over DOD and DOE to discuss the type of information that they would find most helpful. We analyzed the pros and cons of the approaches based on the extent to which they would (1) provide meaningful, full-cost information to decision makers up front, (2) provide disincentives for artificially low cost estimates, and (3) present implementation issues, such as additional administrative burdens for agencies or increased complexity to the budget and appropriations process. Finally, to understand how private organizations provide for environmental cleanup, we conducted limited research of private sector budgeting practices. However, little information was available about up-front decision making.

Our work was done in Washington, D.C., in accordance with generally accepted government auditing standards. We provided a draft of this report to the Secretary of Defense, the Secretary of Energy, and the Director of OMB. Comments are summarized in the "Agency Comments" section.

Environmental Liabilities Largely Associated with Defense and Energy

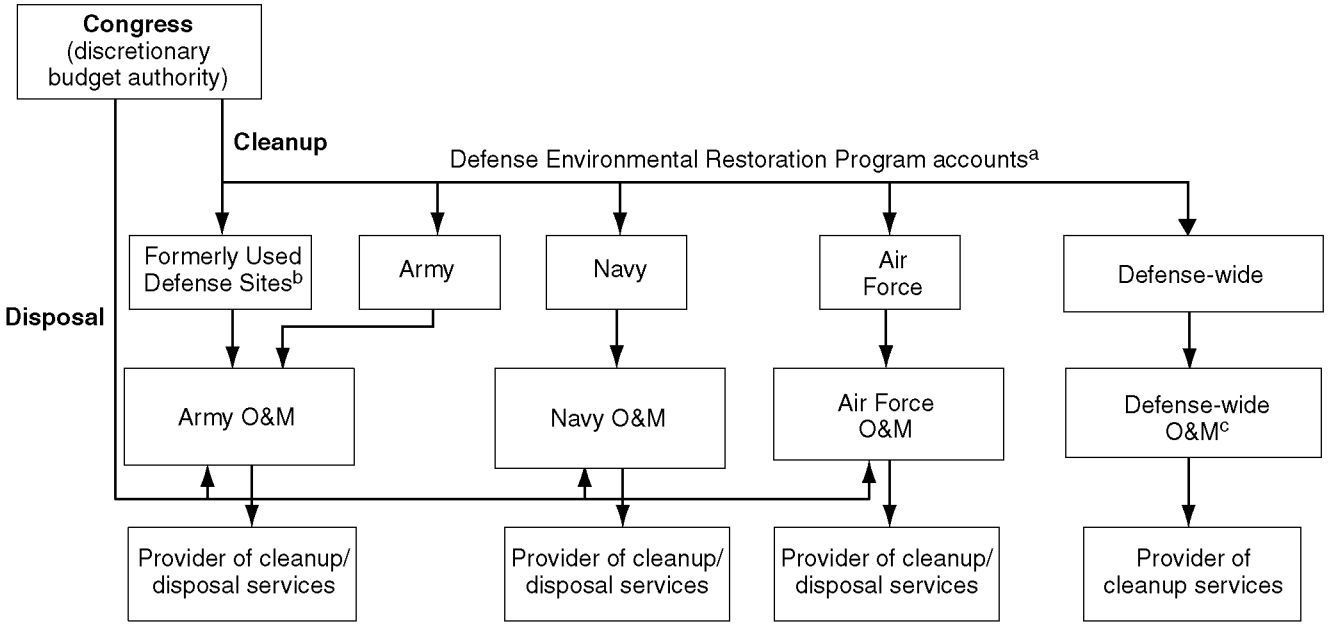
Nearly all of the $307 billion in environmental liabilities reported for fiscal year 2001 was associated with DOD and DOE. About 78 percent of these liabilities were associated with DOE and represent the environmental legacy resulting from the production of nuclear weapons. The 21 percent associated with DOD is primarily for environmental restoration of military installations and disposal of nuclear materials.[8] The remaining environmental liabilities associated with other federal agencies include such things as replacement of underground storage tanks, asbestos removal, and lead abatement. Some of this remaining 1 percent will be paid out of Treasury's judgment fund.[9]

DOD and DOE manage environmental cleanup quite differently: DOD's decentralized activities are managed within the individual services, at the program level, while DOE's activities are centralized within its Environmental Management (EM) program. For example, DOD considers environmental liabilities in two categories: (1) disposal and (2) environmental restoration/cleanup. Army's chemical weapons and Navy's nuclear-powered carriers, ships, and submarines dominate DOD's disposal liabilities. Funding for disposal is provided to the Army, Navy, and Air Force Operation and Maintenance (O&M) accounts. Restoration/cleanup activities are largely addressed through the Defense Environmental Restoration Program (DERP), which is funded through five environmental restoration accounts for Army, Navy, Air Force, Formerly Used Defense Sites (FUDS), and Defense-wide. The funds in these accounts are then transferred to the service levels' O&M budgets. In contrast, within DOE, facilities that have reached the end of their useful lives and require cleanup typically are transferred to EM, along with some additional funds for surveillance and maintenance. EM also receives budget authority directly through an appropriation. Thus, budgeting and funding for cleanup is almost entirely handled by EM, not individual program offices. EM's program emphasis is on site closure and project completion. Its activities include environmental restoration, waste management, and nuclear material and facility stabilization. Figures 1 and 2 illustrate the flow of cleanup funds for these two departments.

[8]Auditors were not able to render an opinion on DOD's fiscal year 2001 financial statements, in part because of DOD's inability to comply with requirements for environmental liabilities. Thus, the $63 billion liability associated with DOD is not known to be a reliable figure.

[9]Treasury's judgment fund has permanent, indefinite budget authority.

Figure 1: Flow of Cleanup/Restoration and Disposal Funds for DOD



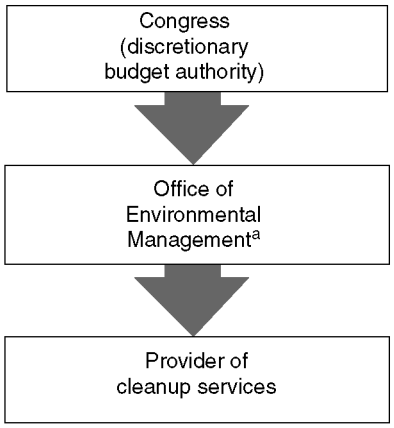
Source: GAO.

[a]In some instances, funds may be transferred to other accounts, such as military construction or procurement, for similar cleanup purposes.

[b]Although the Army, as executive agent, receives funding from the FUDS DERP account, the sites in FUDS may have been owned by any of the services.

[c]Includes the Defense Logistics Agency, Defense Threat Reduction Agency, and Deputy Undersecretary of Defense (Installations & Environment).

Figure 2: Flow of Cleanup Funds for DOE



Source: GAO.

[a]May also receive additional surveillance and monitoring funds from program offices and power administrations.

Current Budget Information Does Not Include Environmental Liabilities Before Acquisition

Current budget guidance and accounting standards both require agencies to estimate cleanup and disposal costs. However, neither requires that these costs be separately estimated for decisions when assets are being considered for purchase—before the government is legally committed to paying these costs. While information about private sector decision making on these costs is limited, at least some organizations set aside funds to address these future cleanup and disposal costs.

Agencies have little or no budgetary incentive to develop estimates of future cleanup costs. With respect to primary budget data, agencies do not reflect associated cleanup costs in their budget requests for new waste-producing assets. Funding for such cleanup costs is not requested until many years later when the waste produced is ready to be cleaned up or disposed of. Budget guidance does require agencies to estimate cleanup costs as part of total life-cycle costs when requesting funds for new assets. However, agencies are not required to specifically break out the cleanup portion of these costs.[10] DOD and DOE officials told us that separating out the cleanup/disposal component from total life-cycle costs would be relatively difficult because their estimates of cleanup costs are very preliminary. Often, a percentage of the purchase price instead of a specific unit cost is used as the cost estimate. Moreover, they noted that future, unknown changes in regulatory requirements and technology make it difficult to develop what they believe to be reasonable and credible cost estimates at the time an asset is acquired. However, since estimates for retiring assets are being made under today's regulatory requirements and technology, the same methodology might be used for preliminary estimates with respect to new assets. This would permit comparisons between or across different assets. Over time, as laws and technology change, periodic cleanup cost reestimates could be made. Clear definitions for hazardous substances also may need to be resolved to ensure that reasonable estimates are developed. For example, the Federal Accounting Standards Advisory Board (FASAB) defines hazardous wastes in relatively broad terms (see footnote 1) for accounting purposes. However, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), which requires the cleanup of waste sites, provides a substantially more detailed definition.

[10]DOD and DOE do provide cleanup cost information in various reports that are available to policymakers. For example, DOD provides an annual report to Congress on the progress and accomplishments of DERP. DOE periodically reports on the status of the EM program's life-cycle cost and schedule estimates for completing cleanup. While the information in these reports may inform future budget planning, it does not include cleanup cost estimates for assets being proposed for purchase.

While accounting standards promote an earlier recognition of environmental liabilities than does the budget, they do not call for estimates of environmental liabilities before an acquisition decision is made because they recognize these cleanup costs only after a transaction has occurred and an asset is put into service.[11] Given that these conditions are met, agencies must estimate the environmental liabilities associated with all existing assets. Despite this, not all agencies comply with accounting standard requirements to estimate the environmental liabilities associated with all of their assets. For example, DOD typically records the liabilities associated with assets for which cleanup or disposal is imminent. DOD's inability to comply with requirements for environmental liabilities was one of several reasons why independent auditors were not able to render an opinion about DOD's fiscal year 2001 financial statements. Absent budgetary incentives to estimate future environmental liabilities, these cost estimates will not be developed as assets are considered for purchase—the time when decision makers still have an opportunity to judge whether the government should commit to these costs.

[11]Accounting standards require that a liability be recognized (i.e., estimated) when a past transaction or event has occurred, a future outflow or other sacrifice of resources is probable, and the future outflow or sacrifice of resources is measurable.

Data about how non-federal organizations consider environmental liabilities when planning to purchase assets or start new projects were largely unavailable. However, there are cases where companies set aside funds for future cleanup costs. For example, the Nuclear Regulatory Commission (NRC) requires private utilities to accumulate the funds necessary to decommission their nuclear power plants and most established sinking funds so that the decommissioning funds are accumulated over the operational life of a nuclear power plant as part of the cost charged to customers for the electricity they use. With the deregulation of electric utilities and the resultant industry restructuring, we recently reported that in most of the requests to transfer licenses to own or operate nuclear power plants approved by NRC, the financial arrangements have either maintained or enhanced the assurance that adequate funds will be available to decommission those plants.[12] For example, projected decommissioning funds were generally prepaid by the selling utility. Also, an Environmental Protection Agency contracted study recommended that a Canadian hydroelectric company establish a liability fund to accumulate funds to finance asset removal, decommissioning, irradiated fuel disposal, and low-to-intermediate radioactive waste disposal.[13]

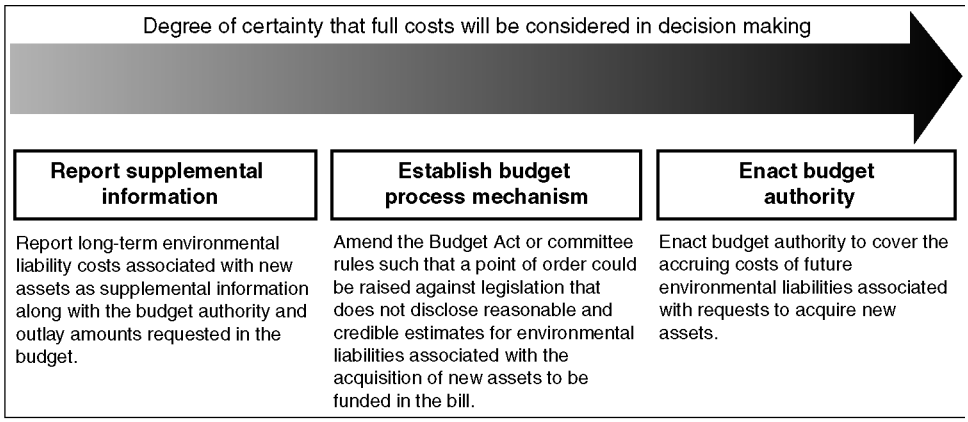
Alternative Approaches to Consider Environmental Liabilities

Alternative approaches to promote more complete consideration of the full costs of environmental cleanup and disposal associated with the acquisition of new assets fall along a continuum from provision of supplemental information to accrual of those costs in budget authority up front, as assets are acquired. We explored three approaches along this continuum ranging from the relatively simple one of providing more information but making little other change to current budgeting, to a more complicated one involving significant changes to what is included in primary budget data. The approaches along this continuum represent the degree of certainty that the costs will be considered in decision making. Figure 3 summarizes the three approaches along the continuum.

[12]U. S. General Accounting Office, *Nuclear Regulation: NRC's Assurances of Decommissioning Funding During Utility Restructuring Could Be Improved*, GAO-02-48 (Washington, D.C.: Dec. 3, 2001).

[13]ICF Incorporated, *"Full Cost Accounting" for Decision Making at Ontario Hydro: A Case Study* (Mar. 22, 1996).

Figure 3: Continuum of Alternative Approaches to Improve Budgeting for Environmental Liabilities



Source: GAO.

The first approach would be to report long-term environmental liability costs associated with new assets as supplemental information along with the budget authority and outlay amounts requested in the budget. For example, the program and financing schedules within the President's budget appendix could be expanded to report these associated costs by budget account or program. This would enable those being asked to make a decision to see the full cost information along with currently requested funds. Although the estimates provided in the supplemental information would not be precisely correct, they would clearly be closer to correct than the current implication of no cost. If a running tally of total environmental liabilities is desired, periodic reestimates would be needed.

A second approach would move beyond providing supplemental information to establishing budget process mechanisms to require explicit disclosure and prompt consideration of the full costs of the environmental liability associated with a proposed asset acquisition. Thus, Congress could revise its rules to permit a point of order against legislation that does not disclose estimates for environmental liabilities associated with the acquisition of new assets to be funded in the bill. This would have the effect of requiring cleanup cost estimates to be made, either by the executive branch or CBO, so that the estimates could be considered.

At the other end of the continuum is the more comprehensive approach of accruing amounts for environmental liabilities associated with new assets in any requested budget authority for new assets.[14] This approach represents the largest departure from current budgeting practices. Along these lines, OMB is developing a legislative proposal to require programs that generate hazardous waste to "pay the accruing cost to clean up contaminated assets at the end of their useful life. These payments would go to funds responsible for the cleanup."[15]

Implementation of an approach that would include budget authority for environmental liabilities would require development of new budgeting mechanisms. The provision to accumulate budget authority over an asset's life would require a means of "fencing off" the budget authority to ensure that it is actually used for cleanup. Also, since no such amounts were set aside for existing assets, it would be necessary to continue financing the cleanup of existing assets while implementing the new approach for new assets. One way to do this is to use a pair of accounts—a liquidating account and a cleanup fund account—in each department involved in budgeting for the cleanup costs. The liquidating account would obtain discretionary budget authority for the past share of cleanup costs of assets already in operation and for the cleanup costs of retired assets. It would pay the past share of cleanup costs for operating assets to the cleanup fund and would conduct or contract for the cleanup of assets no longer in use at the inception of this new approach. Given technological and other changes, regular reestimates of cleanup costs would be necessary.

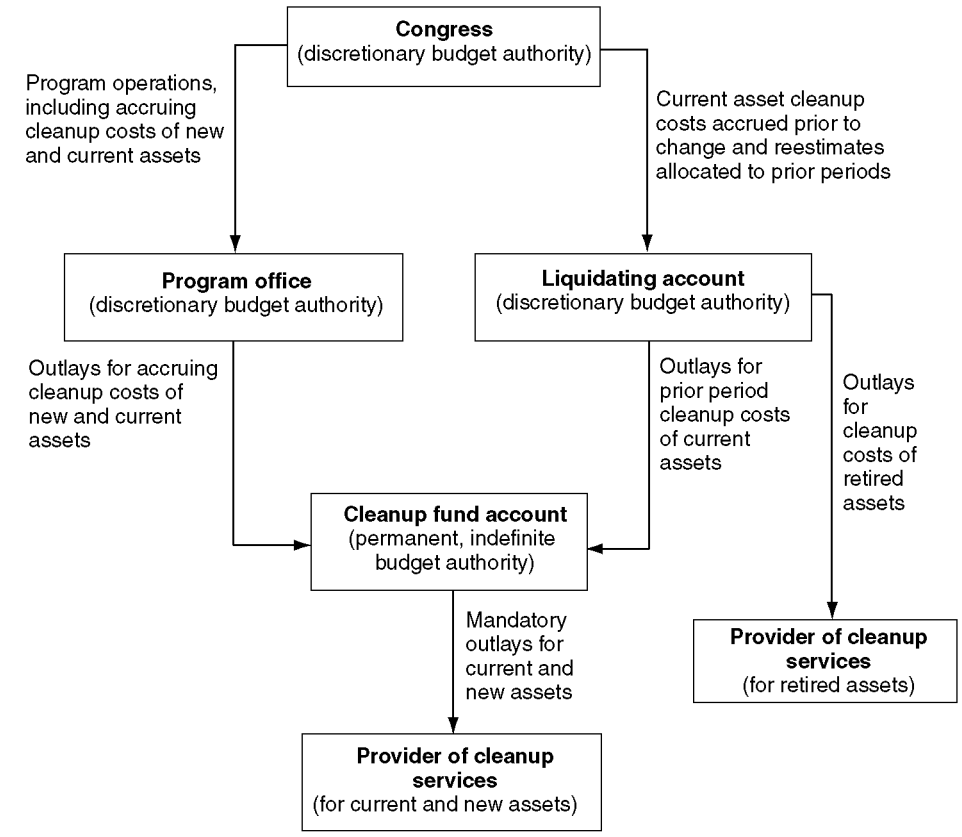
[14]Rather than accruing budget authority over time, the full amount for cleanup could be enacted at the time an asset is acquired. However, this would immediately insert the total highly uncertain cleanup cost estimate into the budget.

[15]Office of Management and Budget, *Analytical Perspectives*, *Budget of the United States Government*, *Fiscal Year 2003* (Washington, D.C.: Feb. 4, 2002), 12.

The cleanup fund account would obtain budget authority from two sources: (1) from the liquidating account for the past share of the cleanup cost for assets that are in operation when the new approach is established and (2) for new assets, from programs that operate assets that generate cleanup needs. The cleanup fund account would receive annual accruing cost payments from programs based on the estimated (and reestimated) cost of cleanup for all operating assets—those purchased after the new approach is implemented and those already in service. These payments would be a required part of the discretionary appropriations for running any program that generates cleanup costs. When needed, the cleanup fund accounts could also request additional budget authority for the assets in operation at its inception. These appropriations could be made to the liquidating account and paid to the cleanup fund account when the assets are ready for cleanup. Once in the cleanup fund account, the budget authority from the programs and liquidating accounts could be permanent, indefinite authority available for cleanup, subject only to the usual apportionment process.[16] Figure 4 below illustrates one possible flow of funds through accounts.

[16]Any successor reform to the Balanced Budget and Emergency Deficit Control Act of 1985 would need to recognize this change.

Figure 4: Possible Flow of Funds through Accounts



Source: GAO.

Each Approach Has Potential Benefits and Challenges

Each of the three approaches described offer both potential benefits and challenges to consider. All three would be likely to improve the quality of cleanup estimates. Although agencies are required to develop these estimates for financial statement purposes, they are not developed until after the asset is purchased. Also, not all agencies have completely complied with financial accounting standards. For example, in December 2001, we reported that DOD was not estimating and reporting liabilities associated with a significant portion of property, plant, and equipment that was no longer being used in its operations.[17] Moreover, DOD's financial statements did not provide cleanup cost information on all of its closed or inactive operations known to result in hazardous wastes. In addition, in 1997 and 1998 we issued a series of reports on DOD environmental liabilities that were not being reported, even though they could be reasonably estimated.[18]

Each of the three approaches would result in decision makers having information about costs and benefits of a proposed acquisition while there is still the opportunity to make a choice—before the government actually incurs an environmental liability. Since the cleanup costs for any asset will become a future claim on federal resources regardless of whether these costs were considered at the outset, good budgeting principles call for up-front consideration of these costs. Given that agencies are not currently experienced in separately estimating cleanup/disposal costs before assets are purchased, reasonable and credible estimates may take time to develop. This, however, is not an insurmountable issue. We have reported on numerous occasions that environmental liabilities can be estimated and have pointed out how estimation methodologies can be improved. For example, in December 2001 we recommended that, among other things, DOD correct real property records, develop and implement standard methodologies for estimating related cleanup costs, and systematically

[17]See U.S. General Accounting Office, *Environmental Liabilities: Cleanup Costs From Certain DOD Operations Are Not Being Reported*, GAO-02-117 (Washington, D.C.: Dec. 14, 2001).

[18]See U.S. General Accounting Office, *Financial Management: DOD's Liability for Missile Disposal Can Be Estimated*, GAO/AIMD-98-50R (Washington, D.C.: Jan. 7, 1998); *Financial Management: DOD's Liability for the Disposal of Conventional Ammunition Can Be Estimated*, GAO/AIMD-98-32 (Washington, D.C.: Dec. 19, 1997); and *Financial Management: DOD's Liability for Aircraft Disposal Can Be Estimated*, GAO/AIMD-98-9 (Washington, D.C.: Nov. 20, 1997).

accumulate and maintain the site inventory and cost information needed to report this liability.

Of the three approaches described, the supplemental information and the budget process mechanism approaches would be easiest to implement and could be done separately or together. Neither requires the enactment of budget authority and so would not increase reported budget totals. Supplemental reporting requirements would be the easiest to implement since OMB could require it under OMB's current authority. However, unless agencies see that the new supplemental information is used in decision making, they may have less incentive to develop meaningful estimates. The budget process mechanism approach would increase the perceived importance of these estimates by permitting a point of order that could block legislation lacking appropriate cost information. For example, unfunded mandates legislation permits a point of order to be raised against proposed legislation containing significant intergovernmental mandates if a CBO estimate of the cost of the mandate has not been published in the committee report or the *Congressional Record*.[19] Unlike supplemental reporting alone, the budget mechanism approach has the potential to promote improved estimates because it could present members an opportunity to challenge legislation without appropriate cost information. Implementing a budget process approach with a point of order would require an amendment either to the Congressional Budget Act of 1974 or a change to committee rules.

The third approach, accruing budget authority over the life of the asset, represents the largest departure from current budgeting practices. By requiring that agencies obtain budget authority before acquiring new assets, this approach would ensure consideration of environmental cleanup costs before an asset is acquired. Such an approach would require legislation. If Congress and the Administration agree to take such action, it would ensure that each program's costs are fully reflected in program budgets. Requiring that agencies accrue budget authority for cleanup costs would likely increase the attention paid to improving the quality of estimates. All in all, given the current quality of agency estimates and significant implementation issues, such an approach may best be viewed as something to be considered in the future.

[19]Unfunded Mandate Reform Act of 1995, Pub. L. No. 104-4, §423.

Beyond the issue of developing reasonable and credible estimates early on, this third approach also would present administrative and structural challenges such as developing mechanisms to ensure that (1) budget authority provided for cleanup is adequately fenced off for cleanup, (2) agencies adequately track and manage that budget authority, and 3) reestimates provide positive incentives to reflect the best approximation of the government's total environmental liabilities. When demand for current funding is great, fencing off budget authority for future use can be a challenge. One way to address this would be to have payments into the cleanup fund come from discretionary appropriations, but once in the fund, the budget authority would become permanent, subject only to the usual apportionment process.[20] Providing higher levels of budget authority now for expenses that may not be paid until well into the future may be difficult. It is important to note that this approach would not in fact change the costs of future cleanups—in effect these have already been determined by the decision to acquire the asset. Rather, this would only shift the timing of their recognition.

Ensuring that agencies adequately track and manage the earmarked budget authority would be a second challenge to successful implementation of this approach. For example, there is more than one way to manage the budget authority needed to clean up assets already in operation at the inception of the new approach. One way would be to transfer budget authority from a liquidating account to a cleanup fund for such assets when they are ready to be cleaned up. Alternatively, the full amount of budget authority for the past share of the cleanup cost could be enacted in one lump sum for the cleanup fund. This would simplify implementation since it would apply the new accrual concept fully to all assets in operation. Since this could be a considered a concept change, any discretionary caps on budget authority (if renewed) would be adjusted upward to accommodate the additional budget authority—but it would still increase reported budget authority totals.[21] Some believe that covering all of the costs immediately would be a

[20]Discretionary budget authority is provided in appropriations acts. Permanent budget authority is available as the result of previously enacted legislation and does not require new legislation for the current year. Apportionment is the action by which OMB distributes amounts available for obligation, by specific time periods (usually quarters), activities, projects, objects, or a combination thereof. The amounts apportioned limit the amount of obligations that may be incurred.

[21]An increase in budget authority totals alone would not affect the deficit/surplus measure because that calculation is based on the difference between total federal revenues and spending in a given year.

cleaner, more consistent application of full costing since it would eliminate a lengthy and possibly confusing transition period. However, such a decision to provide budget authority for retired assets could shift the control over the timing of the cleanup from Congress to the Administration.

Finally, a way to budget for inevitable reestimates of cleanup costs would have to be designed. If agencies must obtain additional budget authority for these reestimates, they will have less incentive to make artificially low initial estimates but may be reluctant to provide upward reestimates. On the other hand, one could envision agencies forwarding a low estimate "today" with the idea that they could worry about "tomorrow" later. Alternatively, reestimates could be handled as they are with credit programs, that is, agencies could automatically receive permanent, indefinite budget authority for upward reestimates of cleanup costs. This would hold agencies harmless for additional costs that result from technological or regulatory changes. It would also, however, provide an incentive to make artificially low initial estimates.

Conclusions

Because the federal budget does not recognize the full costs of a program that will have cleanup costs when decisions to commit to the program are being made, policymakers do not have sufficient information to compare the full costs of a particular program with their judgment of its benefits. Cleanup costs are in fact a liability associated with the ownership of many assets. Decision makers need to consider these costs before committing to acquire the waste-producing asset.

Agencies generally do not yet have experience in estimating future cleanup/disposal costs up front, before the decision to purchase the waste-producing asset is made. Accordingly, all of the alternative approaches we discuss for providing this information represent a challenge for both agencies and OMB to develop an estimation methodology. Increasing the visibility of cost estimates may increase the effort spent on them and ultimately improve both the quality of the estimates and enhance decision making. As a first step, we believe that OMB and agencies should provide supplemental information. This can be expected to improve the focus and attention and permit improvements in estimating models. As this proceeds, further consideration should be given to budget process and budget accounting changes. Ultimately, accruing budget authority for the tail-end cleanup/disposal costs along with the front-end purchase costs of assets would best ensure that the cleanup/disposal costs are considered before

the government incurs the liability, but raises significant implementation challenges.

Recommendations for Executive Action

We recommend that the Director of OMB require supplemental reporting in the budget to disclose future environmental cleanup/disposal costs for new acquisitions. To this end, agency and OMB officials should consult with legislative branch officials to ensure that useful information on estimated environmental cleanup/disposal costs is provided to congressional decision makers when requesting appropriations to acquire waste-producing assets.

Agency Comments

The Secretary of Defense had no comments on our draft report. We did not receive comments from the Secretary of Energy in time to be considered and included in this report. In consultation with OMB staff, GAO was commended for its useful analysis and noted that the ideas discussed merit consideration. OMB staff also provided technical clarifications, which we incorporated as appropriate.

As agreed with your office, unless you release this report earlier, we will not distribute it until 30 days from the date of this letter. At that time we will send copies to the Ranking Minority Member of the House Committee on the Budget and the chairmen and ranking minority members of the Senate Committee on the Budget; the subcommittees on Defense and on Energy and Water Development, Senate Committee on Appropriations; and the subcommittees on Defense and on Energy and Water Development, House Committee on Appropriations. We are also sending copies to the Director, Office of Management and Budget. In addition, we are sending copies to the Secretary of Defense and of Energy. Copies will also be made available to others upon request. In addition, the report is available at no charge on GAO's Web site at http://www.gao.gov.

This report was prepared under the direction of Christine Bonham, Assistant Director, Strategic Issues, who may be reached at (202) 512-9576. Other major contributors were Carol Henn and Brady Goldsmith. Please contact me at (202) 512-9142 if you or your staff have any questions concerning the report.

Sincerely yours,

Susan J. Irving
Director
Federal Budget Analyses
Strategic Issues

Breakout of Environmental Liabilities

About a dozen federal agencies report environmental liabilities in their financial statements. This appendix provides additional detail on the environmental liabilities reported by the Department of Energy (DOE) and the Department of Defense (DOD) and about those reported by the other federal agencies. These data were extracted from agencies' fiscal year 2001 consolidated balance sheets and represent existing assets—not proposed acquisitions. Because DOD and the National Aeronautics and Space Administration auditors disclaimed an opinion on their financial statements, it is not certain that these amounts fairly present their liabilities.

Table 1: Breakdown of DOE and DOD Federal Environmental Liabilities, Fiscal Year 2001

(Dollars in billions)

Agency		Liability
DOE		
	Closed nuclear weapons complexes	$184
	Active and surplus facilities—other programs	31
	High-level waste and spent nuclear fuel disposition	15
	Other	8
	Subtotal — DOE	$238
DOD		
	Training range cleanup	2
	Other cleanup sites	14
	Formerly Used Defense Sites	18
	Base Realignment and Closure	5
	Aircraft carriers/submarines disposal	11
	Chemical weapons and other disposal	14
	Subtotal — DOD[a]	$ 63
Total[a]		**$302**

Source: DOE and DOD.

Note: Information was taken from DOE's and DOD's fiscal year 2001 consolidated balance sheets and accompanying notes.

[a] Numbers do not add to total due to rounding.

Table 2: Environmental Liabilities, by Agency, Fiscal Year 2001

(Dollars in millions)

Agency	Liability	Audit opinion	Nature of liability
Department of Energy	$238,349	Unqualified	Legacy resulting from the production of nuclear weapons.
Department of Defense	63,294	Disclaimed	Contamination resulting from decades of training and preparing for national defense.
Department of Transportation	2,178	Unqualified	Cleanup associated with normal Federal Aviation Administration, Coast Guard, and Maritime Administration operations (e.g., storage tanks, fuels, solvents, and chemicals) or the result of an accident.
National Aeronautics and Space Administration	1,346	Disclaimed	Groundwater, surface water/sediment, and ecological remediation and monitoring.
Tennessee Valley Authority	804	Unqualified	Decommissioning of nuclear-powered generating plants.
Department of the Interior	268	Unqualified	Remediation of hazardous conditions and contamination caused by the Department of the Interior and which exist on lands held by the department.
Department of Veterans Affairs	260	Unqualified	Asbestos removal, lead abatement, replacement of underground oil and gasoline tanks, decommissioning of waste incinerators, and decontamination of equipment prior to disposal.
General Services Administration	144	Unqualified	Removal and containment of environmental hazards in federal buildings.
Department of Commerce	79	Unqualified	Nuclear reactor, Pribiloff Island, and other cleanup.
Environmental Protection Agency (EPA)	15	Unqualified	Cleanup of closed EPA sites plus the decontamination and decommissioning of EPA research facilities.
Department of Health and Human Services	13	Unqualified	Removing, containing, and/or disposing of (1) hazardous waste from property or (2) material and/or property that consists of hazardous waste at a permanent or temporary closure or shutdown of associated property, plant, and equipment.
Department of Justice	5	Unqualified	Underground fuel storage tank remediation, maintenance, and repair.
Total	**$306,755**		

Source: GAO.

Note: Data were taken from these agencies' consolidated balance sheets and accompanying notes. Only agencies that reported environmental liabilities in their fiscal year 2001 financial statements are shown.

United States
General Accounting Office
Washington, D.C. 20548-0001

Official Business
Penalty for Private Use $300

Address Service Requested

Presorted Standard
Postage & Fees Paid
GAO
Permit No. GI00