United States General Accounting Office

GAO

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

December 2001

ENVIRONMENTAL LIABILITIES

Cleanup Costs From Certain DOD Operations Are Not Being Reported

G A O

Accountability ★ Integrity ★ Reliability

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

December 14, 2001

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

Dear Mr. Chairman:

The previous Chairman of your Committee expressed concern about the long-term budgetary implications associated with environmental cleanup costs[1] related to the ongoing operations of the Department of Defense (DOD). Since most of these costs had not been reported by DOD, the Chairman requested that we review and report on (1) the scope of ongoing operations at DOD installations that have associated environmental cleanup costs, (2) the potential magnitude of cleanup costs associated with those operations, and (3) the availability of data to develop related cleanup cost estimates. Ongoing operations refer to general property, plant, and equipment (PP&E)[2] facilities or other assets that are currently being operated or are currently in use on DOD installations. Examples of operating facilities and other assets with associated cleanup costs include hazardous and solid waste landfills and incinerators, hazardous waste storage facilities, open burn/open detonation sites, and underground storage tanks.

[1] Cleanup costs are those associated with hazardous waste removal, containment, or disposal and include decontamination, decommissioning, site restoration, site monitoring, closure, and postclosure costs.

[2] Statement of Federal Financial Accounting Standards No. 6 defines general PP&E as any property, plant, and equipment used in providing goods or services. It typically has one or more of the following characteristics: (1) it could be used for alternative purposes (e.g., by other federal programs, state or local governments, or non-governmental entities) but is used to produce goods and services, or to support the mission of the entity, (2) it is used in business-type activities, or (3) it is used in activities whose costs can be compared to those of other entities performing similar activities (e.g., federal hospital services in comparison to other hospitals).

The previous Chairman also requested a similar review of DOD's training ranges that have associated environmental cleanup and disposal costs, and we recently issued a separate report on that category of PP&E.[3] We have also issued a series of reports related to the environmental liability associated with the cleanup and disposal of DOD's weapons systems.[4]

Because DOD did not have a centralized or comprehensive system for identifying, summarizing, maintaining, and reporting the cleanup costs associated with all of its ongoing operations, we could not determine the full scope and magnitude of its related liability. Therefore, as agreed with your staff, we selected 6 of the more than 1,500 active installations reported by DOD—2 from each military service—to review. Based on DOD records, these installations appeared to have a high potential for environmental cleanup costs related to facilities and assets used in operations. We reviewed the associated environmental cleanup information at the installations and their respective regulatory agency offices. We also reviewed the information that was available in the real property records at the DOD installations we visited. Finally, we obtained cleanup cost estimates for those six installations.

[3] *Environmental Liabilities: DOD Training Range Cost Estimates Are Likely Understated* (GAO-01-479, April 11, 2001).

[4] *Financial Management: Factors to Consider in Estimating Environmental Liability for Removing Hazardous Materials in Nuclear Submarines and Ships* (GAO/AIMD-97-135R, August 7, 1997), *Financial Management: DOD's Liability for Aircraft Disposal Can Be Estimated* (GAO/AIMD-98-9, November 20, 1997), and *Financial Management: DOD's Liability for Missile Disposal Can Be Estimated* (GAO/AIMD-98-50R, January 7, 1998).

While we originally focused on ongoing operations, the information at the six installations we visited indicated that DOD also was not estimating and reporting liabilities associated with a significant portion of PP&E that was no longer being used in its operations. Neither DOD's financial statements nor the Defense Environmental Restoration Program (DERP) Annual Report to Congress[5] have provided the Congress with cleanup cost information on all of DOD's closed or inactive operations known to result in hazardous wastes. Therefore, we expanded our work to cover these additional unreported liabilities as well. We did not, however, verify the accuracy of most of the data that DOD provided to us.

Except as noted above, our work was conducted in accordance with generally accepted government auditing standards from August 2000 through May 2001. Further details on our scope and methodology are included in appendix I.

Results in Brief

DOD has not yet developed the policies, procedures, and methodologies needed to ensure that cleanup costs required for all of its ongoing and inactive or closed operations are identified, consistently estimated, and appropriately reported. As a result, DOD's financial statements and environmental reports continue to underreport environmental liabilities and the related long-term budgetary needs. Based on our work, the scope and magnitude of DOD's unreported liabilities for the six installations we visited are significant; however, the installations appear to have the data needed to identify and estimate those liabilities.

The installations we visited had a total of 221 sites[6] with total estimated cleanup costs of $259 million. Of these, only $61 million for 45 of the 221

[5] The Office of the Deputy Under Secretary of Defense (Environmental Security) issues this report pursuant to 10 U.S.C. 2706. The report provides details on the technical and financial status of DOD's cleanup of contamination resulting from past activities at current and former DOD installations, and formerly used defense sites, and outlines future cleanup plans and funding requirements. DERP cleanup at active installations and former defense properties is funded through five separate environmental restoration accounts included in DOD's operation and maintenance appropriations: (1) Army, (2) Navy, (3) Air Force, (4) Formerly Used Defense Sites, and (5) Defense-Wide. Funding for cleanup at base realignment and closure installations occurs through a separate account included in DOD's military construction appropriations.

[6] Sites consist of discrete locations on installations where contaminants either have been, or could potentially be, released into the environment.

sites was being reported for the DERP and, therefore, only that amount was likely included in DOD's financial statements. We found that 149 sites related to ongoing operations with total estimated cleanup costs of $91 million and 27 inactive and/or closed operations with total estimated cleanup costs of $107 million were not being reported by DOD. DOD has more than 1,500 active installations that may have the same issues we identified at the 6 installations we visited.

The environmental offices at the six installations that we visited had comprehensive records for the installation sites subject to cleanup requirements. The initial identification of sites at these installations was the result of extensive investigations conducted pursuant to federal, state, and/or local regulations. We also found that the records were updated periodically by environmental personnel to reflect new sites and the current cleanup status of all sites. As a result, information needed to identify assets subject to cleanup requirements and to develop the related cost estimates was readily available at the six installations. However, DOD does not have the policies and processes in place to ensure that a cleanup cost estimate is prepared and reported for each identified site or to systematically accumulate and maintain these data at a departmentwide level.

Although we found the environmental site records maintained for regulatory purposes at the individual installations visited to be reasonably accurate, the installation real property records used to maintain accountability over related land, buildings, and structures were significantly flawed. If properly maintained, the real property records should be a primary source for ensuring the accuracy of environmental site records. However, in our efforts to reconcile real property and environmental site records, we found significant differences. These differences represented errors related to sites that were not properly added to or deleted from the real property records, as well as sites incorrectly categorized in the real property records. For example, the real property records at one installation identified 48 underground storage tanks, while environmental site records showed that only 16 were in existence. Because we used DOD's real property records to identify the six installations for our review, we may not have selected from among those with the highest potential for cleanup costs as we intended. As a result, DOD may have other installations with more significant cleanup costs than the ones we reviewed.

Finally, DOD does not have standard methodologies[7] to develop consistent, reliable cost estimates. Each of the six installations independently developed its cost estimates using different methodologies. As a result, estimates for similar assets could have significant variances. For example, Camp Pendleton Marine Corps Base, California, used an "average removal cost" methodology to estimate the cost to remove a 20,000-gallon underground storage tank at $13,000. However, Fort Polk, Louisiana, elected to adjust a specific prior removal contract for another underground storage tank and estimated the cost to remove a 5,000-gallon underground storage tank at more than $43,000.

Reporting of complete and accurate environmental liability estimates will require that DOD environmental, property management, and accounting personnel coordinate their efforts to develop and maintain comprehensive cleanup cost information and to develop and implement policies and procedures for consistently estimating and reporting all related liabilities. Therefore, we are making recommendations that address the need for DOD leadership and focus to ensure that the liability for environmental cleanup related to ongoing and inactive/closed operations is reported in accordance with federal accounting standards. Such leadership should address key issues, including (1) providing necessary guidance, (2) correcting real property records, (3) providing for the periodic reconciliation of real property and environmental site records, (4) developing and implementing standard methodologies for estimating related cleanup costs, and (5) systematically accumulating and maintaining the site inventory and cost information needed to report this liability.

[7] By using the term "standard", we mean that methodologies used to develop cleanup cost estimates for similar types of assets should be formalized so that they consistently include all applicable costing components (e.g., the actual cleanup activities of containment, removal, disposal, restoration, and monitoring) and provide for periodic updating for changes in inflation, current pricing, relevant physical circumstances, regulatory requirements, and intended technology use. The standard methodologies should then be validated to ensure that resulting estimates are accurate and reliable.

In commenting on a draft of this report, DOD concurred with the overall intent of our recommendations and fully concurred with our specific recommendation to designate a focal point to oversee and manage the reporting of DOD's liability for the cleanup of all ongoing and inactive/closed operations. DOD partially concurred with the remaining three recommendations. In addition, DOD expressed concern that some aspects of the report were misleading due to its interpretation of certain terms used in the report. Specifically, DOD objected to the use of the term "cleanup" and instead preferred what it stated were the more precise terms of "environmental restoration" and "accrued environmental disposal cost." However, the term "cleanup," as used in this report, includes specific activities and costs encompassing more than just environmental restoration and/or disposal costs, in accordance with federal accounting standards.[8] The standards specifically include closure and postclosure costs. Therefore, to limit a discussion of cleanup costs to only those related to restoration and disposal inappropriately narrows the applicability of the accounting standard. Further, DOD stated that many of the statements related to our findings in the report were speculative and lacked supporting evidence. We disagree and reiterate our position that our findings and conclusions are well-supported by our results from the six installations we visited, as well as by the systemic weaknesses we identified in the areas of DOD-wide reporting systems, record-keeping, guidance for reporting environmental cleanup liabilities, and leadership and focus. Our detailed response to DOD's specific comments is included in appendix III.

Background

DOD is subject to various environmental laws and regulations that govern restoration (cleanup) of contamination from past operations and control of hazardous waste related to active facilities (ongoing operations). DOD must also follow federal accounting standards and its own *Financial Management Regulation* (FMR) to ensure complete recognition and financial reporting of the associated liabilities. DOD has taken incremental steps in recent years to report a more complete picture of its environmental liabilities, but substantial issues remain in certain areas, including

[8] The Federal Accounting Standards Advisory Board (FASAB) promulgates accounting principles for federal government reporting entities. The FASAB standards provide generally accepted accounting principles covering most transactions for the federal government.

accounting for and reporting estimated cleanup costs for all ongoing and inactive/closed operations.

Laws and Regulations

The Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1980 to provide a framework for cleanup of the nation's worst hazardous waste sites. CERCLA focuses on the cleanup of inactive/closed hazardous waste sites and on making the parties responsible for generating and handling hazardous substances at these sites responsible for cleanup costs. In 1986, the Congress passed the Superfund Amendments and Reauthorization Act (SARA) which, among other things, established the DERP to implement DOD's environmental cleanup activities. Through the DERP, a $2 billion per year program managed by the Deputy Under Secretary of Defense for Environmental Security (DUSD(ES)), DOD is cleaning up contamination at active military installations and former defense properties throughout the United States and restoring the land for new uses. DOD reports annually to the Congress on the status of DERP cleanup efforts and future funding requirements, largely based on data input from installations across the military services. DOD also uses installation DERP data to compile a significant portion of its environmental liabilities for financial statement reporting purposes. For fiscal year 2000, DOD reported approximately $18 billion on its financial statements for liabilities associated with DERP cleanup on active installations and formerly used defense sites.[9]

[9] DOD reported $63 billion in total environmental restoration and disposal liabilities in fiscal year 2000, comprised of $37 billion in environmental restoration liabilities—of which DERP-funded liabilities totaled $18 billion—and $26 billion for disposal of weapons systems and chemical weapons. The remaining $19 billion of restoration liabilities primarily relates to liabilities for cleanup of training ranges and base realignment and closure installations.

Subtitle C of the Resource Conservation and Recovery Act (RCRA) of 1976, as amended, provides hazardous waste management requirements for generators and transporters of waste and owners and operators of treatment, storage, and disposal facilities. Hazardous waste has properties that make it dangerous or capable of having a harmful effect on human health or the environment. Some types of hazardous waste are identified by their source, that is, by the specific industrial processes that produce the waste, such as electroplating, which generates sludge from the wastewater treatment. Other types are defined by certain characteristics that make the waste hazardous, such as whether it is flammable, corrosive, reactive, or toxic. Examples of related operations include hazardous waste landfills and incinerators, open burn/open detonation sites, and hazardous waste storage facilities.[10] RCRA also regulates the operation and closure of underground storage tanks containing petroleum or hazardous substances and governs the cleanup of tank releases. Under RCRA, operators of facilities that treat, store, or dispose of hazardous waste must typically obtain an operating permit subject to regulatory oversight and periodic renewal. Figures 1 and 2 show examples of a hazardous waste storage bunker and underground storage tank regulated under RCRA.

[10] Subtitle D of RCRA addresses operations involving nonhazardous waste (e.g., household and/or agricultural garbage). Examples include sanitary landfills and certain bio-solid disposal operations.

Figure 1: Hazardous Waste Storage Bunker

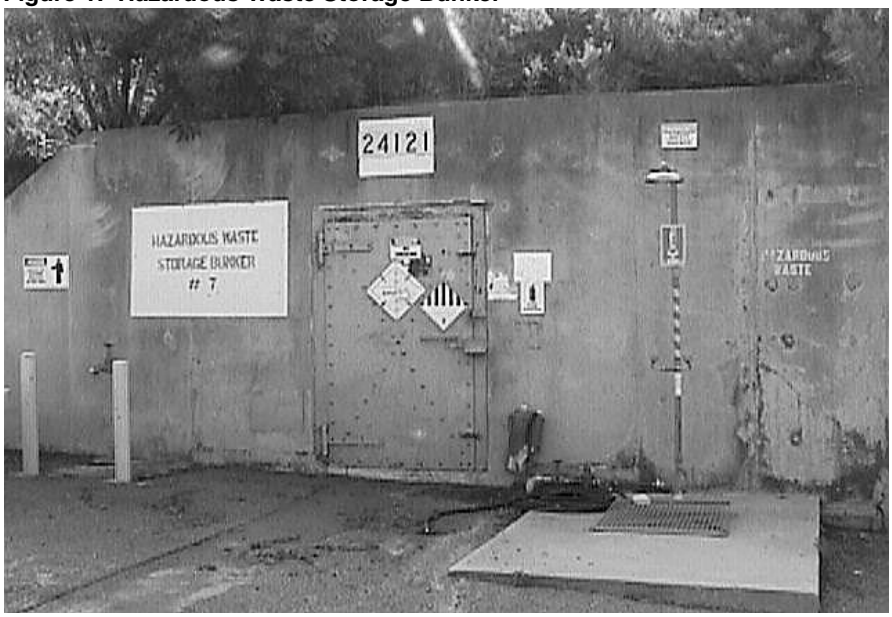

Figure 2: Underground Storage Tank Being Transported After Removal

Accounting Requirements

Two federal accounting standards, Statement of Federal Financial Accounting Standards (SFFAS) Nos. 5 and 6, establish the criteria for recognizing and reporting environmental liabilities. SFFAS No. 5, *Accounting for Liabilities of the Federal Government*, effective beginning in fiscal year 1997, defines a liability as a probable future outflow of resources due to a past government transaction or event. SFFAS No. 5 further states that recognition of a liability in the financial statements is required if it is both probable and measurable. SFFAS No. 6, *Accounting for Property, Plant, and Equipment*, supplements the requirements of SFFAS No. 5 with regard to PP&E cleanup costs, most notably those associated with general PP&E (e.g., landfills). Cleanup costs are defined as costs for removing, containing, and/or disposing of hazardous wastes or materials that, because of quantity, concentration, or physical or chemical characteristics, may pose a substantial present or potential hazard to human health or the environment. SFFAS No. 6, effective beginning in fiscal year 1998, requires that cleanup costs for general PP&E be allocated to operating periods in a "systematic and rational manner" based on use of the physical capacity of the associated PP&E (e.g., expected usable landfill area) whenever possible.[11] If physical capacity is not applicable or estimable, cleanup costs may be accrued over the useful life of the associated PP&E. Regardless of allocation method, this accounting treatment should result in the accumulation of the total cleanup cost liability at the time when the PP&E ceases operation.

The Office of the Under Secretary of Defense (Comptroller) issues the FMR, which contains DOD's financial management policies and procedures. DOD FMR Volume 4, Chapter 13, *Accrued Environmental and Nonenvironmental Disposal Cost Liabilities*, prescribes the accounting policy for estimating and recognizing liabilities associated with the disposition of property, structures, equipment, munitions, and weapons. DOD FMR Volume 4, Chapter 14, *Accrued Environmental Restoration (Cleanup) Liabilities*, prescribes the accounting policy for estimating and recognizing liabilities associated with the containment, treatment, or removal of contamination. Chapter 14 specifies that cost estimates reported by installations to DUSD(ES) for preparation of budgetary requests and the DERP Annual Report to Congress shall be used by DOD

[11] For general PP&E already in service as of the effective date of the standard, and associated with operations not charging a fee intended to recover costs, the estimated cleanup costs may be recognized in full when implementing the standard.

components as the baseline for liability measurement for financial statement purposes.

Reported Environmental Liabilities

DOD's financial statements should provide a comprehensive reporting of its environmental liabilities since, unlike the DERP Annual Report to Congress, the ultimate source of funding does not impact financial reporting requirements. DOD reported approximately $63 billion in environmental liabilities in its fiscal year 2000 financial statements, which was comprised of cost estimates for: (1) cleanup of nontraining range sites—$23 billion, (2) chemical weapons disposal—$15 billion, (3) training range cleanup—$14 billion, and (4) disposal of nuclear-powered aircraft carriers/submarines— $11 billion. Included in the $23 billion component were $18 billion for DERP-funded cleanup, as well as $1.4 billion and $175 million disclosed separately by the Army and Air Force, respectively, for non-DERP cleanup on active installations. Army disclosed that of its reported $1.4 billion, approximately $500 million related to ongoing operations, including closure of open burn/open detonation sites. Army reported that the other $900 million related to elements that include RCRA corrective action/closure plans and underground storage tanks.

Deficiencies in DOD's reporting of environmental liabilities continue to be a major contributing factor to our inability to express an opinion on the federal government's consolidated financial statements. For fiscal year 2000, we reported that DOD did not maintain adequate systems or have sufficient information to develop an accurate estimate of key components of its environmental and disposal liabilities.[12]

Unreported Cleanup Liabilities Are Significant

We found that the scope and magnitude of unreported cleanup costs for ongoing and inactive/closed operations were significant at the six installations we visited. Although the installations have a process in place to accumulate the data needed for DERP reporting, this process does not encompass all operations with probable and reasonably estimable cleanup costs. Working largely with personnel already responsible for DERP

[12] Our audit report on the federal government's fiscal year 2000 consolidated financial statements is included as an attachment in our testimony on the audit results – *U.S. Government Financial Statements: FY 2000 Reporting Underscores the Need to Accelerate Federal Financial Management Reform* (GAO-01-570T, March 30, 2001).

reporting, we identified over 200 sites with estimated cleanup costs in excess of $250 million, most of which had not been previously reported.

The 6 installations we visited had a total of 221 ongoing and inactive/closed sites requiring cleanup. We identified the sites by using environmental site records maintained at the installations, which we substantiated through a combination of regulatory agency record review, visual inspection, and interviews with personnel from the respective regulatory agencies and installation environmental offices. At our request, the installation environmental offices readily prepared or provided cleanup cost estimates totaling approximately $259 million for all 221 sites.

We found some sites at each installation already in various stages of cleanup, and some of these sites were being funded through the department's environmental restoration accounts. Sites funded through these accounts are to be included in the DERP Annual Report to Congress and in DOD's environmental liabilities reported in its financial statements. We confirmed that 45 of the 221 sites, with estimated cleanup costs of $61 million, were included in DERP reporting by the installations.

The remaining 176 sites were not included in DERP reporting, and of the $259 million in estimated cleanup costs, $198 million, or 76 percent, was not reported through DERP and therefore likely not reported in DOD's financial statements.[13] Of the 176 unreported sites, 149 involved ongoing operations with total estimated cleanup costs of $91 million.[14] The remaining 27 unreported sites were inactive and/or closed operations with

[13]According to DOD officials, the DERP Annual Report is the basis for its financial statement reporting of inactive and/or closed operation sites on active installations. Our work did not include tracing data for the specific sites at the six installations we reviewed into the DERP Annual Report to Congress and DOD's financial statements. However, it is unlikely that these specific sites are included in DOD's reported liability because (1) a majority of the unreported costs that we identified were for inactive or closed operations that were not reported in DERP (see table IV.4) and (2) many of the estimates we cite were developed after DOD's financial statements were compiled and reported.

[14] Accounting standards generally require that cleanup costs associated with operating facilities and assets be recorded and reported over the period of time that the assets are, or are expected to be, in use. Therefore, DOD is not required to report the total cleanup costs for ongoing operations as a liability in its financial statements. For the operating sites we looked at, only $37 million of the total $91 million would have to be reported as of fiscal year 2000. However, agencies may choose to record the total liability for assets and facilities in use at the time the accounting standards became effective if no fees are charged to the users of those assets.

total estimated cleanup costs of $107 million. Tables 1 and 2 provide additional details on the number/types of sites at the six installations, corresponding cleanup cost estimates, and reporting status. Appendix IV provides these data by installation.

Table 1: Estimated Cleanup Costs at the Six Installations Visited

Environmental category	Number of sites	Estimated cleanup costs (in millions)
Hazardous, solid, and bio-solid waste landfills	51	$239.6
Hazardous waste storage facilities	18	2.2
Open burn/open detonation, chemical burning and fire training pits, and incinerators	19	7.6
Underground storage tanks	133	9.9
Total	**221**	**$259.3**

Table 2: Operational and Reporting Status of Cleanup Sites at the Six Installations Visited

Operational and reporting status	Number of sites	Estimated cleanup costs (in millions)
Sites included in DERP reporting[a]	45	$61.1
Unreported ongoing operation sites	149	91.1
Unreported inactive and/or closed operation sites	27	107.1
Total	**221**	**$259.3**

[a]Includes only those DERP reported sites falling within the scope of our review (e.g., inactive/closed landfills).

Based on our analysis of six installations, the amount of unreported environmental liabilities associated with ongoing and inactive/closed operations is significant. DOD stated in its fiscal year 1999 DERP Annual Report to Congress that it has over 1,500 funded active installations with approximately 6,000 sites in some stage of cleanup. We believe that other installations may have the same issues we found at the six we visited. In addition, given the deficiencies discussed later in this report regarding the real property records that we used to select the six installations we visited,

some of the other installations could have even more significant cleanup costs than we identified.

DOD Accounting Guidance Inadequate for Operations Identified

DOD issued accounting guidance for environmental liabilities in 1999 by adding new chapters to the FMR. However, neither of the separate chapters issued for asset disposal and restoration/cleanup liabilities adequately addresses the types of unreported liabilities that we identified.

Volume 4, Chapter 13, of the FMR applies to costs associated with asset disposal. Many of the cases that we identified do not involve the actual disposal of assets, but rather closure of an operation and, where necessary, cleanup of the site for future use. Landfills are a good example of this scenario—rather than selling the property when landfill operations cease, DOD usually caps or covers the facility for closure and conducts postclosure monitoring of the site consistent with regulatory requirements, usually for a period of at least 30 years. We did not find the guidance needed to report the liability for landfills in Chapter 13.

SFFAS No. 6 specifically states that cleanup includes closure and postclosure costs. Therefore, Volume 4, Chapter 14, of the FMR, which applies to restoration (cleanup) liabilities, should encompass the types of operations that we identified. However, as currently written, this chapter does not clearly indicate that closure and postclosure activities are elements of cleanup. Chapter 14 defines cleanup as "…the containment, treatment, or removal of contamination that could pose a threat to public health and the environment." As a result, this definition does not adequately address the types of operations that we identified, such as landfills, open burn/open detonation sites, and underground storage tanks.

While Chapter 14 contains specific guidance on DERP cleanup and specifically references the site inventory and cost estimating guidance contained in the "DERP Management Guidance" document issued by DUSD(ES), it does not have equivalent guidance for non-DERP cleanup. As discussed previously, however, 176 (80 percent) of the 221 sites that we identified at the 6 installations, and 76 percent of the $259 million in estimated costs that we obtained for all sites, were not included in DERP reporting. Consequently, Chapter 14 would be further strengthened by specifically addressing non-DERP cleanup.

Real Property Records and Cost Estimating Methodologies Are Not Reliable

Installation environmental offices at the six installations we visited maintain comprehensive records for their own sites and operations subject to cleanup requirements for regulatory purposes and have demonstrated that cleanup costs for ongoing and inactive/closed operations can be estimated.[15] However, we found that corresponding real property records are not reliable and cost estimating methodologies are not standardized. Further, we found that DOD does not have the policies and formalized processes in place to systematically accumulate, maintain, and report site and cost data at a departmentwide level, as well as to ensure that these data are complete. As a result, DOD's financial statements likely do not present an accurate, comprehensive report of its environmental liabilities as required by federal accounting standards.

Environmental Office Records Identify Cleanup Sites

The installation environmental offices that we visited had extensive records that identify cleanup sites by size and type. We found that the initial identification of sites by each of the six installations was the result of extensive investigations conducted pursuant to federal, state, and/or local laws. For example, as part of the RCRA permitting process, installations perform a comprehensive environmental assessment of all operations to identify actual and potential cleanup sites. This process results in a RCRA Facility Assessment Report (RFA), which documents the results of the assessment and includes a detailed list of identified sites. Figures 3 and 4 show two examples of the types of sites identified in the RFA: an open burn/open detonation site and a landfill operation.

[15] We did not audit the cleanup cost estimates prepared by the installations and therefore did not verify that all of the data elements needed to develop individual estimates were included and accurate.

Figure 3: Open Burn/Open Detonation Site

Figure 4: Solid Waste Landfill

The environmental offices at all six installations had extensive knowledge of the sites listed in their own RFA and periodically updated the data, as required by the permitting process, to reflect newly discovered sites and the current cleanup status of all sites. Underground storage tanks, which represented over half of the 221 sites, are registered through state and local regulatory agencies and installation environmental offices have records to identify them. Thus, these offices maintain detailed environmental site records related to the RFA, updated permitting data, and underground storage tanks.

Real Property Records Cannot Be Used to Validate Environmental Site Records

According to DOD, real property records should be a comprehensive source of data for all installation land, buildings, and related structures, regardless of whether or not cleanup requirements apply.[16] As such, if properly maintained, they should contain information needed to ensure the accuracy of environmental site records, including data on site descriptions,

[16] *Defense Property, Plant and Equipment Accountability Manual (Draft)*, DOD Directive Number 5000.nn-xxx.

in-service dates, and useful lives. Since both real property records and environmental office site records provide information needed to prepare DOD's financial statements and are therefore subject to audit, periodic reconciliations between the two sets of records would help ensure their accuracy. However, we determined that the records maintained by each installation's real property office were not being reconciled and did not agree with the environmental office site records that we had substantiated through review of regulatory agency records, visual inspection, and interviews. We investigated the differences and found significant errors in the real property records. These errors related to sites that were not properly added to or deleted from the real property records, as well as sites incorrectly categorized in the real property records.

We found a total of 237 errors in the real property records related to operations with hazardous waste. As table 3 shows, 206 of the 237 errors, or 87 percent, resulted from additions and deletions that were not made. The 206 were comprised of 182 adjustments to add property that existed but was not recorded, and another 24 to delete property that was recorded but no longer existed at the installations. The remaining 31 errors related to property that had been incorrectly categorized in the real property records. For example, we found both underground and aboveground storage tanks categorized together, even though different cleanup and closure requirements apply to each type of tank. Appendix IV provides these data by installation. Because we used the installations' real property records, which we have since found to be unreliable, as the basis for our selection of the six installations for this review, we may not have chosen installations from among those with the most significant cleanup costs as we intended.

Table 3: Errors in Real Property Records

Types of errors	Number of errors
Additions not made	182
Deletions not made	24
Categorized incorrectly	31
Total	**237**

We found cases of significant numbers of additions and deletions not being made at some installations. For example, at Camp Pendleton Marine Corps Base, California, we identified 52 underground storage tanks that were not

recorded in the real property records. At Fort Polk, Louisiana, the real property records showed 48 underground storage tanks, while the environmental site records showed only 16 in existence. Several real property office personnel cited problems in receiving the proper documentation from the base engineer or other installation personnel to prompt an adjustment to the real property records. We identified these significant errors despite existing requirements that installations perform periodic inventories of real property assets.

We also found that policies regarding the recording of land-related assets were not consistently applied by the installations. For example, at two of the installations visited—Fort Carson, Colorado, and Cherry Point Marine Corps Air Station, North Carolina—we found that the installations' real property offices did not always record assets related to land (e.g., landfills, open burn/open detonation sites, and fire training pits) in their records as required. For these two installations, we identified 33 additions that should have been made. However, we noted that the Fort Polk and Camp Pendleton real property offices did record landfills and other land-related assets.

We found other inconsistencies in the recording of active and inactive/closed facilities in the real property records. For example, at several installations, active facilities were included in the records but inactive/closed facilities still incurring closure and postclosure costs were not included. Additionally, we noted instances where several real property assets located in the same vicinity were recorded as one asset. For example, at Fort Polk, the real property records showed one 160,000-gallon underground storage tank. After further review and inquiry, we determined that there were actually four separate 40,000-gallon tanks at that location.

The remaining 31 errors that we found involved assets being incorrectly categorized in the real property records. For example, at Fort Polk, we identified 20 aboveground storage tanks that were categorized as underground storage tanks. Because different cleanup and closure requirements apply to each type of tank, the installations' real property records must categorize these assets separately to support the environmental site records.

The errors that we identified are symptoms of a lack of formal communication between the real property and environmental offices at some installations. Proper coordination between the property management and environmental management communities is critical to

ensuring consistent and reliable tracking and reporting for financial management, regulatory compliance, and other purposes.

Lack of Consistent Methodologies for Estimating Cleanup Costs

The environmental offices at the 6 installations that we visited were able to provide us with estimates of future cleanup costs for all 221 sites. However, DOD does not have standardized and validated methodologies for developing cleanup cost estimates and installation personnel used a variety of methods to develop those estimates. The methods used by the installation environmental offices included: (1) applying different costing models, including Remedial Action Cost Engineering and Requirements (RACER) and Means Cost Estimating, (2) tailoring cost estimates from prior closures to the specific characteristics (e.g., location, technology, type of waste, capacity) of the new site and adjusting for inflation, (3) relying on staff expertise and experience in cleanup cost estimating, and (4) using an average of prior actual costs.

The installations' use of various costing methods resulted in significant variances in cleanup cost estimates for operations with similar cleanup requirements. For example, Fort Polk adjusted a recent removal contract and estimated the cost to remove a 5,000-gallon underground storage tank at approximately $43,000, while Camp Pendleton estimated the cost to remove a 20,000-gallon underground tank at only $13,000 by using an average of past removal costs. Based on inquiries of installation personnel responsible for the separate cost estimates, we could not identify a reason for the significant variance other than the different estimation methods that were used.

Until DOD develops and validates standard methodologies for estimating cleanup costs, there is no assurance that these cost estimates will be comparable and reliable for decisionmaking and budget planning. DOD already has guidance in effect (DOD Instruction 5000.61; *DOD Modeling and Simulation Verification, Validation, and Accreditation*) which requires that cost models be validated to ensure that the results produced can be relied upon.

Leadership and Focus on Cleanup Costs Are Lacking

DOD lacks leadership to ensure comprehensive reporting of the cleanup costs for ongoing operations and certain inactive/closed operations on active installations. While the Office of the Deputy Under Secretary of Defense (Environmental Security) was created in 1993 as the office responsible for environmental cleanup within DOD, its primary focus has been on the cleanup of operations covered and reported by the DERP. Although the requirements for reporting liabilities for non-DERP cleanup have existed for years, DOD has not established adequate or consistent policies to reliably develop the required cleanup cost estimates or to ensure those estimates are maintained, accumulated, and reported in its financial statements. DOD also lacks procedures for periodic communication between environmental, real property, and accounting personnel to ensure that site and cost information is accurate and complete. We made this same observation in our recent report on cleanup cost estimates for DOD training ranges.[17]

Conclusions

Although detailed information exists to identify operations requiring cleanup and to estimate the related cleanup costs at the six installations we visited, DOD does not have a comprehensive, controlled process to capture, summarize, maintain, and report this data for all operations. DOD currently has a structured process in place to compile and report site and cost data for DERP cleanups; however, the department is not using this process for all cleanup costs associated with ongoing and inactive/closed operations. Since many of the same installation personnel manage DERP and non-DERP cleanups, the current framework could be expanded to encompass both. In addition, DOD is not routinely coordinating between installation property management and environmental management personnel. Consequently, DOD is not properly maintaining its real property records or reconciling them with environmental site records.

These issues exist primarily because DOD does not have adequate guidance and leadership to ensure that: (1) all future cleanup costs are identified and reported as part of an overall approach to managing all of its environmental liabilities, and (2) real property records are properly maintained and coordinated with environmental site records. As our work reveals, the guidance and procedures must be developed and implemented

[17] *Environmental Liabilities: DOD Training Range Cost Estimates Are Likely Understated* (GAO-01-479, April 11, 2001).

with effective coordination across the environmental, property management, and accounting communities. Until DOD addresses the issues discussed in this report, particularly in the areas of guidance and leadership, we cannot assure the Congress that DOD's reported environmental liabilities can be relied on for long-range budget planning decisions.

Recommendations

We recommend that the Secretary of Defense designate a focal point with the appropriate authority to oversee and manage the reporting of DOD's liability for the cleanup of all ongoing and inactive/closed operations.

We recommend that the Secretary of Defense require the DOD Comptroller to revise the FMR to include: (1) an expanded definition of cleanup, consistent with SFFAS No. 6, that includes closure/postclosure activities, and (2) guidance that addresses all restoration/cleanup liabilities, regardless of funding source or type of operation, in accordance with federal accounting standards.

We recommend that the Secretary of Defense require the Deputy Under Secretary of Defense (Installations and Environment) to ensure that (1) existing errors in real property records are corrected, and (2) real property and environmental site records are periodically reconciled.

We also recommend that the Secretary of Defense require the designated focal point to work with the appropriate DOD organizations to develop guidance and procedures to implement the revised FMR requirements, to include the following: (1) standardized and validated methodologies for estimating cleanup costs, and (2) a comprehensive, controlled process to systematically capture, summarize, maintain, and report the cleanup sites and costs resulting from all operations known to result in hazardous waste.

Agency Comments and Our Evaluation

On October 11, 2001, we received DOD's comments, dated August 29, 2001, which addressed a draft of this report. In commenting on the draft, DOD concurred with the overall intent of our recommendations and fully concurred with our specific recommendation to designate a focal point to oversee and manage the reporting of DOD's liability for the cleanup of all ongoing and inactive/closed operations. DOD partially concurred with the remaining three recommendations. Our response to DOD's partial concurrences is included in appendix III.

In addition, DOD expressed concern that some aspects of the report were misleading due to its interpretation of certain terms used in the report. Specifically, DOD objected to the use of the term "cleanup" and instead preferred what it stated were the more precise terms of "environmental restoration" and "accrued environmental disposal cost." However, the term "cleanup," as used in this report (see footnote 1), is defined by federal accounting standards to include specific activities and costs encompassing more than just environmental restoration and/or disposal costs. To limit a discussion of cleanup costs to only those related to restoration and disposal inappropriately narrows the applicability of the accounting standard. In accordance with the definition of cleanup and the scope of the accounting standard, the estimated cost to clean up the 221 ongoing and inactive/closed sites identified in the report are for those actions required by federal, state, and/or local statutes to remove, contain, and/or dispose 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 PP&E. If the required action—which in accordance with the accounting standard may include, but is not limited to, decontamination, decommissioning, site restoration, site monitoring, closure, and postclosure costs—has not been accomplished, the liability for the future costs still remains. Therefore, the liability for the estimated future costs to clean up the 221 sites in the report includes future closure and postclosure costs based on requirements in current operating permits, as well as liabilities for the remaining closure and postclosure costs of inactive/closed operations, and closure costs for underground storage tanks. Included also are liabilities for remaining costs of decontamination and/or site restoration required by corrective actions for previous contamination of inactive/closed operations.

DOD acknowledged that it did not fully estimate all of its environmental cleanup costs, but believes our report overstates the extent of the underestimation. However, our report focuses only on the results of our reviews conducted at six specific DOD installations and the extent of likely understatement by those installations. As discussed in the body of this report, 76 percent of the total estimated cleanup for the six installations, or $198 million, was not included in DERP reporting and therefore, likely not reported in financial statements. In addition, DOD stated that our report did not acknowledge a liability of $1.5 billion reported in its fiscal year 2000 financial statements for the types of activities covered by the report. We disagree. Our draft report clearly stated that the Army disclosed $1.4 billion for non-DERP cleanup on active installations. Although we continue to believe that we appropriately concluded that the Air Force's

disclosure of $175 million in non-DERP cleanup was not significant to its financial statements, we have modified our report to specifically identify this amount.

Further, DOD stated that many of the statements made in this report were speculative and lacked supporting evidence. We disagree and have addressed DOD's specific concerns in appendix III. Overall, we reiterate our position that our findings and conclusions are well-supported by our results at the six installations we visited, as well as the systemic weaknesses we identified in the areas of DOD-wide reporting systems, record-keeping coordination and maintenance, guidance in reporting environmental cleanup liabilities, and leadership and focus. Further, as explained in the introduction to the report and in appendix I, we intended to use a representative sample to respond to our requester's question regarding the magnitude of cleanup costs associated with DOD's ongoing operations. However, because DOD did not have a comprehensive system for identifying, summarizing, maintaining, and reporting cleanup costs for ongoing operations, DOD was unable to provide us with a reliable population from which to select a representative sample. Instead, we selected two installations from each of the three military services as examples and our conclusions about the magnitude of unreported liabilities relate only to those six installations.

We are sending copies of this report to the Ranking Minority Member, House Committee on the Budget, and to other interested congressional committees. We are also sending copies to the Secretary of Defense; the Under Secretary of Defense for Acquisition, Technology, and Logistics; the Under Secretary of Defense (Comptroller); the Deputy Under Secretary of Defense for Installations and Environment; and the Director of the Office of Management and Budget. Copies will be made available to others upon request.

Please contact me at (202) 512-9095 if you or your staff have any questions about this report. Other GAO contacts and key contributors to this report are listed in appendix V.

Sincerely yours,

Gregory D. Kutz
Director
Financial Management and Assurance

Objectives, Scope, and Methodology

Our objectives were to determine: (1) the scope of ongoing DOD operations with potentially significant cleanup costs, (2) the potential magnitude of costs to clean up and dispose of the hazardous waste resulting from those operations, and (3) the availability of data for developing cleanup cost estimates. Our review, with the exception of training ranges and weapons systems (national defense PP&E), included all ongoing and inactive/closed operations on six active installations known to result in hazardous waste and subject to federal, state, and/or local laws or regulations requiring removal, containment, or disposal of that waste.

Compliance with federal accounting standards requires the recognition of a liability if a future outlay of resources is both probable and reasonably estimable. To determine if a cleanup liability was probable, we reviewed federal financial accounting standards, environmental laws and regulations, and DOD accounting guidance that address environmental cleanup requirements. We also interviewed DOD officials responsible for financial reporting and environmental program management and regional Environmental Protection Agency (EPA) officials responsible for overseeing the administration of federal environmental laws and regulations applicable to DOD operations. To determine if a cleanup liability was reasonably estimable, we interviewed state regulatory agency personnel responsible for administering federal, state, and local environmental laws and regulations that regulate DOD activities and similar commercial waste management operations. We obtained information on plans for cleanup, closure, and postclosure monitoring required as part of the permitting of waste management operations for both DOD and similar commercial activities. We also obtained information on cost estimates to accomplish those plans for commercial activities.

To determine the potential scope of DOD operations requiring environmental cleanup, we obtained the real property databases of each military service and extracted the assets whose category descriptions (e.g., hazardous waste storage facility) indicated an association with a hazardous or solid waste management or underground storage tank operation.

Because DOD did not have a centralized or comprehensive system for identifying, summarizing, maintaining, and reporting the cleanup costs associated with all of its ongoing operations, we could not use representative sampling techniques to determine the full scope and magnitude of its related liability. Therefore, as agreed with our requester, we selected 6 of the more than 1,500 active installations reported by DOD to use as examples. To make preliminary planning decisions about the

potential magnitude of the DOD-wide estimated future cleanup costs for the operations indicated by the real property extracts, we conducted a telephone survey of the regulatory officials from 13 states to determine an average estimated cleanup cost for similar commercial waste management operations. We applied the average commercial costs, making assumptions about operational status and remaining useful lives, to the extracted real property assets, and ranked individual installations in order of the resulting potential total cleanup costs. We then selected six DOD installations, two from each military service, to conduct on-site reviews of the actual scope and magnitude of the estimated future cleanup costs of their operations known to result in hazardous waste. With one exception, which was selected for its geographical location, the remaining five installations were selected from the top five in each service with what appeared to be the highest potential cleanup costs. Appendix II lists the primary locations where we performed our review.

To determine the scope and related future cleanup cost estimates of waste management operations and underground storage tanks for the six individual DOD installations selected, we conducted on-site reviews at the state regulatory agencies having jurisdiction over each installation, and at each selected DOD installation.

Our objective at each state regulatory agency was to obtain an understanding of the nature, scope, and cleanup requirements of the waste management activities at each selected DOD installation. To accomplish this, we: (1) interviewed relevant state regulatory agency officials, (2) reviewed oversight, permitting, and compliance documents for the DOD installations, and (3) if available, obtained and reviewed documentation of cleanup cost estimates for similar commercial operations.

Our objectives at each of the six DOD installations visited were to:

- substantiate and supplement the information and insight gained at the regulatory agencies,
- determine the scope of ongoing and inactive/closed operations requiring cleanup at each installation,
- determine the estimated cleanup costs for these operations, and
- determine the extent to which these cleanup costs are currently being reported for budgetary planning and financial statement purposes.

To accomplish our objectives, we: (1) interviewed installation environmental officials and reviewed supporting documentation

evidencing operations and their status, (2) reconciled listings of operations and/or related assets and their status, obtained from the regulator, to installation environmental office records, (3) physically observed the existence and status of selected operations and the related PP&E, (4) obtained future cleanup cost estimates prepared by the environmental office, (5) compared our findings to installation reporting for DERP purposes, and (6) reconciled our PP&E extracts from the military service real property databases, and supplemental information provided by installation real property office records, to environmental office records of operations requiring cleanup.

We summarized the data obtained and analyzed the results of our review by individual installation and environmental category (see appendix IV). We did not independently verify the reliability of the cleanup cost estimates, nor did we verify the existence or cleanup status of all relevant operations at each installation visited.

Except as noted above, our work was conducted in accordance with generally accepted government auditing standards from August 2000 through May 2001. On October 11, 2001, we received DOD's comments, dated August 29, 2001, which addressed a draft of this report. DOD's comments are discussed in the "Agency Comments and Our Evaluation" section and are reprinted in appendix III, which also includes our detailed response to DOD's specific comments.

Locations Visited

We contacted personnel and conducted work at the following locations:

Department of Defense

- DOD Inspector General Headquarters, Arlington, VA

Environmental Protection Agency

- Regional Office – Region VIII, Denver, CO

Air Force

- Cannon Air Force Base, Environmental Flight & Pollution Prevention, Clovis, NM
- Vandenberg Air Force Base, Environmental Compliance/Pollution Prevention Section, Lompoc, CA

Army

- Fort Carson, Division of Environmental Compliance, Colorado Springs, CO
- Fort Polk, Compliance Management Branch, Leesville, LA
- U.S. Army Forces Command, Internal Review Audit Compliance, McPherson, GA

Navy/Marine Corps

- Camp Pendleton Marine Corps Base, Inspection & Compliance Division, Ocean City, CA
- Cherry Point Marine Corps Air Station, Environmental Affairs Department, Havelock, NC

State Regulatory Agencies

- California Environmental Protection Agency – Department of Toxic & Substance Control, Southern California Region, Cypress & Glendale, CA
- County of San Diego – Department of Environmental Health, San Diego, CA
- Santa Barbara Public Health Department, Santa Barbara, CA
- Colorado Department of Public Health & Environment, Denver, CO
- Louisiana Department of Environmental Quality, Baton Rouge, LA
- State of New Mexico Environment Department, Santa Fe, NM
- North Carolina Department of Environment & Natural Resources, Raleigh & Washington, NC

Other

Other individuals were contacted via telephone and electronic mail.

Comments from the Department of Defense

ACQUISITION, TECHNOLOGY AND LOGISTICS

OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

Mr. Gregory D. Kutz
Director, Financial Management and Assurance
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Kutz:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "Cleanup Costs From Certain DOD Operations Are Not Being Reported," dated August 8, 2001 (GAO-01-1039). DoD concurs with the overall intent of GAO's recommendations contained in the Report (Enclosure 1).

See comment 1.

The Department is concerned, however, that aspects of the report are misleading because the draft report fails to draw a distinction between the generic term "cleanup" and the more precise terms of "environmental restoration" and "accrued environmental disposal cost" liabilities contained in the DoD Financial Management Regulation (FMR). For example, the costs associated with the future closing of hazardous waste storage operations should not be described as "cleanup costs." This implies that DoD is not doing anything to clean up these storage areas. In fact, there is no need to clean up the storage areas because there is no current environmental cost associated with a properly operated storage area. The liability is the future environmental cost associated with the closure of storage areas. A properly operated storage area will have little environmental costs. The Department believes that the requirement to estimate such liabilities is stated in the FMR. The Department acknowledges that the Department did not fully estimate all of these costs but believes the report overstates the extent to which they have not been estimated. Moreover, the Department's FY 2000 financial statements reflect a liability of $1.5 billion for the types of activities covered by the report. Unfortunately, the report's conclusions do not acknowledge this stated liability.

See comment 1.

The Department also believes that many of the statements made in the report tend to be speculative and lack supporting evidence. Enclosure 2 addresses our specific concerns.

The Department thanks GAO for participating in our Environmental Liability workshops where the participants discussed many of these issues and looks forward to working together to improve DoD's financial statements.

8/29/01

Raymond F. DuBois, Jr.
Deputy Under Secretary of Defense
(Installations and Environment)

Enclosures

GAO DRAFT REPORT DATED AUGUST 8, 2001
(GAO CODE 918990)

ENVIRONMENTAL LIABILITIES: Cleanup Costs From Certain DoD Operations Are Not Being Reported

DEPARTMENT OF DEFENSE COMMENTS
TO THE GAO RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommended that the Secretary of Defense designate a focal point with the appropriate authority to oversee and manage the reporting of DoD's liability for the cleanup of all ongoing and inactive/closed operations. (p. 24 GAO Draft Report)

DOD RESPONSE:

Concur. The Deputy Under Secretary of Defense for Installations and Environment is the focal point for reporting the environmental liability of all ongoing and inactive/closed operations.

RECOMMENDATION 2: The GAO recommended that the Secretary of Defense require the Under Secretary of Defense (Comptroller) to revise the FMR to include: (1) an expanded definition of cleanup, consistent with Statement of Federal Financial Accounting Standards (SFFAS) No. 6, that includes closure/postclosure activities, and (2) guidance that addresses all restoration/cleanup liabilities, regardless of funding source or type of operation, in accordance with Federal accounting standards. (p. 24 GAO Draft Report)

DOD RESPONSE:

See comment 2.

Partially concur. As was discussed at the June 2001 Environmental Liabilities workshop, at which GAO staff were present, Under Secretary of Defense (Comptroller) is in the process of revising the FMR to provide clear guidance on how to account for environmental liabilities addressed in the report. DoD believes that the categories of non Defense Environmental Restoration Program corrective actions (i.e., addressing contamination that occurred after 1986) and closure activities more accurately describe the liabilities addressed in the report rather than the term "cleanup." Accordingly, DoD does not believe using an expanded definition of cleanup is the proper approach to address this issue. As the Department gains additional experience in this area, it also will review appropriate chapters in Volume 4 of the "DoD FMR" to determine what, if any, additional specific guidance may need to be included regarding recognizing and reporting

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liabilities when projected costs meet the criteria for a liability found in applicable federal accounting standards.

RECOMMENDATION 3: The GAO recommended that the Secretary of Defense require the Under Secretary of Defense for Acquisition, Technology, and Logistics to ensure that (1) existing errors in real property records are corrected, and (2) real property and environmental site records are periodically reconciled. (p. 25 GAO Draft Report)

DOD RESPONSE:

See comment 3.

Partially concur. The Department has an ongoing effort to improve the accuracy of real property records. The Military Departments are working to reconcile real property records and will correct errors during this reconciliation process. The Deputy Under Secretary of Defense for Installations and Environment will continue to work with the DoD Components to ensure real property records are accurate and that policy is established to reconcile real property and environmental site records.

RECOMMENDATION 4: GAO also recommended that the Secretary of Defense require the designated focal point to work with the appropriate DoD organizations to develop guidance and procedures to implement the revised FMR requirements, to include the following: (1) a standardized and validated methodology for estimating cleanup costs, and (2) a comprehensive, controlled process to systematically capture, summarize, maintain and report the cleanup sites and costs resulting from all operations known to result in hazardous waste. (p. 25 GAO Draft Report)

DOD RESPONSE:

See comment 4.

Partially Concur. The Deputy Under Secretary of Defense for Installations and Environment will work with the appropriate DoD organizations to develop guidance and procedures to implement the revised FMR requirements. Where cost estimates rely on models, DoD will use models validated in accordance with DoD Instruction 5000.61. However, DoD does not believe that the Deputy Under Secretary of Defense for Installations and Environment nor the Under Secretary of Defense (Comptroller) should require DoD organizations to use a standard methodology for estimating future closure costs or the cost of conducting a corrective action. For example, installation personnel should be allowed to use prior contract data to estimate costs of removing an underground storage tank. Estimates based on prior experience for similar projects are more accurate than cost models. Accounting standards do not require that estimates use the same methodology. Accounting standards require that the estimates be auditable and reliable. DoD will examine the best approach to capture the data associated with operations that result in hazardous waste and ensure that it is reflected in future financial statements.

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Department of Defense Objections/Requests for Clarifications

Pg. 3 paragraph 2 line 6, page 12 heading (middle of the page) and page 24 paragraph 2
The report states that the magnitude of DoD's reported liabilities are "significant" or "significantly understated." The audit report does not support this broad conclusion. A survey of six installations and interviews with installation level engineers and regulatory agency personnel is not sufficient grounds to support this conclusion. DoD's FY 2000 financial statement did contain estimates of environmental liabilities associated with corrective actions (such as underground tank removal) and closure plans. The Air Force and Army estimates totaled $1.5 billion. Moreover, on page 13, footnote 12, the GAO report states "DoD is not required to report the total cleanup costs for ongoing operations as a liability in its statements. For the operating sites we looked at, only $37 million of the total of $91 million would have to be reported as of fiscal year 2000." The conclusion that DoD is significantly underreporting its ongoing operations liabilities based on a small sample that derived an estimate of $37 million compared to the $1.5 billion that DoD reported on its financial statements is not justified. The Department requests that GAO delete descriptive statements about the magnitude of the reported liability.

See comment 5.

The Department also requests that GAO delete descriptive statements about the real property records being significantly flawed. The GAO audit did not include an audit of all the real property records at the installations surveyed. It appears that the GAO only audited those real property records related to environmental records. For example, Cannon Air Force Base maintains 11,458 real property records. The GAO report identified 16 errors at Cannon associated with environmental records. A survey of the environmental records compared to the real property records for the same kinds of sites does not support the statement beginning at the bottom of page 4 "the real property records used to maintain accountability over all installation land, buildings, and related structures, were significantly flawed." The statement implies that all real property records are flawed rather than state that the errors related to whether the environmental records are accurately reflected in the real property records.

See comment 6.

Pg. 4 paragraph 2 The paragraph states that environmental records were more accurate than real property records. The paragraph concludes that discrepancies between the real property records and the environmental records may have led GAO to miss installations that have more significant cleanup costs than those GAO surveyed. This conclusion is speculative. The audit's focus was on environmental liabilities associated with ongoing operations, not the accuracy of the real property records. Moreover, the phrase "we may not have selected from among the highest potential for cleanup costs as we intended" implies that GAO was purposely trying to survey the installations with highest potential costs. This statement seems to deviate from standard government audit procedures which emphasize collecting data from a representative sample of a population. The Department requests that the last two sentences of this paragraph (on pg 5) be stricken.

See comment 7.

See comment 8.

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See comment 4.

Pg. 5 paragraph 1 and pg 22 paragraph 3 Comparing two cost estimates for tank removal in two disparate geographical locations does not support the conclusions made in this paragraph. Accounting standards do not require that estimates use the same methodology. Accounting standards require that the estimates be auditable and reliable.

See comment 9.

Pg. 12 lines 1 and 2 The report states that the financial statements of other Military Services did not report a significant amount of liability for non-DERP cleanup. The Air Force reported $175 million for active installations other funds. Why does the GAO report state that this is not significant?

See comment 1.

Pg.12 paragraph 3 From the text, it is not clear what the requirement is to cleanup the 221 ongoing and inactive/closed sites at the six installations mentioned. Is the requirement a closure requirement based on the operating permit issued by an environmental regulatory agency? Is it corrective action based on previous contamination? The generic use of the term "cleanup" is misleading. The report states that $198 million in estimated cleanup costs was "not reported thorough the DERP and, therefore, not reported in DoD's financial statements." The footnote states that GAO did not trace the data in the report to DoD's financial statements. As stated above, DoD did report $1.5 billion in environmental liability for non-DERP activities. The conclusion that if something was not reported in the DERP it also was not reported in the DoD financial statement is not supported by the work completed by GAO.

See comment 10.

See comment 2.

Pg. 16 paragraph 1 The report states that Chapter 14 of the FMR does not clearly indicate that closure and post closure activities are elements of cleanup. DoD does not believe that these activities should be defined as cleanup. As discussed at the June 2001 workshop, at which GAO staff were present, DoD believes that these activities should be covered by the term closure activities and covered under Chapter 13.

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GAO Draft Report,
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GAO's Comments

The following are GAO's comments on the letter dated August 29, 2001 (received October 11, 2001), from the Department of Defense.

1. See the "Agency Comments and Our Evaluation" section of this report.

2. Chapter 14 of DOD's FMR, "Accrued Environmental Restoration (Cleanup) Liabilities," is intended to provide guidance in accounting for and accruing a liability for the costs associated with the containment, treatment, or removal of contamination that could cause a threat to public health and the environment. However, the included guidance centers around environmental cleanup primarily relating to restoration activities and costs. Chapter 13 of DOD's FMR, "Accrued Environmental And Non-environmental Disposal Cost Liabilities," provides guidance in accounting for and accruing a liability for the costs associated with the disposal of property, structures, equipment, munitions, and weapons. As stated in the "Agency Comments and Our Evaluation" section, the federal accounting standard requirement to account for environmental cleanup cost encompasses more than the restoration and disposal costs guidance currently provided by the FMR. Regardless of the terminology used, we continue to recommend that the FMR address the broad range of activities included in the scope of the federal accounting standard, such as closure and postclosure monitoring costs.

3. On May 15, 2001, DOD created the new position referred to in its comment letter, the Deputy Under Secretary of Defense (Installations and Environment), within the Acquisition, Technology and Logistics office. Because DOD has combined responsibility for both real property and environmental issues in this position, we modified our recommendation to require the Deputy Under Secretary of Defense (Installations and Environment) to correct errors in real property records and to reconcile those records with environmental site records.

4. We have modified the report to clarify the definition of "standard" as used in this report and to change the word "methodology" to "methodologies." The underground storage tank example in our report illustrates how the use of nonstandard methodologies can result in inconsistent and incomparable cost estimates.

5. We disagree that the report's conclusions about the significance of DOD's unreported liabilities are not supported. As discussed in the

body of our report and in the "Agency Comments and Our Evaluation" section, the unreported environmental cleanup liability for the six installations visited was 76 percent of the total estimated cleanup costs for these locations. The report's "Conclusions" section points out the lack of and/or weaknesses in DOD-wide reporting systems, record-keeping coordination and maintenance, and leadership and guidance in reporting environmental cleanup liabilities. When considered in light of these DOD-wide weaknesses, we believe the unreported cleanup liabilities found at the visited installations are more than adequate support for our conclusion. Nevertheless, in response to DOD's concern, we have modified our report to state that until DOD addresses the issues discussed in this report, particularly in the areas of guidance and leadership, we cannot assure the Congress that DOD's reported environmental liabilities can be relied on for long-range budget planning decisions.

Further, as stated in footnote 12 to our report, federal accounting standards do not require DOD to record the entire cleanup cost of ongoing operations as a liability on its current financial statements. However, those same accounting standards (SFFAS No. 6, par. 109) would require disclosure of the unrecognized portion of estimated total cleanup costs. In other words, DOD would be required to disclose in the footnotes to its financial statements that portion of the estimated total liability of $91 million for environmental cleanup of ongoing operations not reported as a liability on its financial statements.

6. We agree that the scope of our work did not include an audit of all the real property records at the installations visited and have clarified the wording of our report to address only the relevant real property records.

7. DOD is correct in observing that we were purposely trying to survey the installations with the highest potential costs. In lieu of using a representative sample (which was not possible due to problems in identifying a reliable population from DOD's records, as discussed in comment 8), we selected, with one exception, two installations in each service from the top five having the highest potential environmental cleanup cost. This was an attempt to obtain as complete an understanding as possible of the broad range of cleanup activities that may be associated with DOD's ongoing operations. Further details on our methodology are disclosed in appendix I, "Objectives, Scope, and Methodology." Our assessment of potential environmental cleanup

costs for individual installations was based on data obtained from DOD's real property records. Review of this data during our installation visits disclosed significant errors in the relevant real property records, which in turn caused the initial determinations of potential cleanup costs to be unreliable. Thus, we could no longer be certain whether other DOD installations would have had higher potential cleanup costs than those selected.

8. We disagree with DOD that our methodology deviated from standard governmental auditing procedures. Audit sampling is applicable only when the auditor expects to draw a conclusion about a population. Because DOD did not have a comprehensive system for identifying, summarizing, maintaining, and reporting cleanup cost for ongoing operations, DOD could not provide a reliable population from which to select a representative sample. Instead, as stated in the body of our report and more fully disclosed in appendix I, "Objectives, Scope, and Methodology," we selected two installations from each of the three military services as examples, and reached conclusions about the magnitude of unreported liabilities for only those six installations. Our selection was not intended to be a representative sample of DOD installations and we drew no conclusions about any population based solely on the results of our review of the six installations.

9. We have modified the report to disclose the amount actually reported by the Air Force.

10. Because DOD could not provide us with detailed lists of all the costs that comprise its reported liability, we have modified the report to indicate that estimated cleanup costs not reported through DERP were "not likely" to have been reported in DOD's financial statements. We also clarified our support for this issue in footnote 13.

Installation-Level Data on Environmental Sites, Estimated Cleanup Costs, and Errors in Real Property Records

Table 4: Type and Number of Sites Requiring Cleanup

	Installations visited						
Environmental category	**Cannon AFB, NM**	**Vandenberg AFB, CA**	**Ft. Carson, CO**	**Ft. Polk, LA**	**Camp Pendleton MCB, CA**	**Cherry Point MCAS, NC**	**Total**
Hazardous, solid and bio-solid waste landfills	13	5	14	6	3	10	**51**
Hazardous waste storage facilities	1	1	1	0	13	2	**18**
Open burn/open detonation, chemical burning and fire training pits and incinerators	4	1	6	4	0	4	**19**
Underground storage tanks	0	9	43	16	52	13	**133**
Total	**18**	**16**	**64**	**26**	**68**	**29**	**221**

Table 5: Operational and Reporting Status of Sites Requiring Cleanup

	Installations visited						
Operational and reporting status	**Cannon AFB, NM**	**Vandenberg AFB, CA**	**Ft. Carson, CO**	**Ft. Polk, LA**	**Camp Pendleton MCB, CA**	**Cherry Point MCAS, NC**	**Total**
Sites included in DERP reporting[a]	3	4	18	7	1	12	**45**
Unreported ongoing operation sites	3	12	40	18	67	9	**149**
Unreported inactive and/or closed operation sites	12	0	6	1	0	8	**27**
Total	**18**	**16**	**64**	**26**	**68**	**29**	**221**

[a]Includes only those DERP reported sites falling within the scope of our review (e.g., inactive/closed landfills.)

Table 6: Estimated Future Cleanup Costs by Environmental Category (in millions)

	Installations visited						
Environmental category	**Cannon AFB, NM**	**Vandenberg AFB, CA**	**Ft. Carson, CO**	**Ft. Polk, LA**	**Camp Pendleton MCB, CA**	**Cherry Point MCAS, NC**	**Total**
Hazardous, solid and bio-solid waste landfills	$100.7	$32.4	$30.8	$15.8	$41.4	$18.6	**$239.6**
Hazardous waste storage facilities	.1	.3	.2	0	1.3	.4	**2.2**
Open burn/open detonation, chemical burning and fire training pits and incinerators	.4	.3	.4	3.8	0	2.7	**7.6**
Underground storage tanks	0	.2	1.7	.8	.7	6.5	**9.9**
Total	**$101.2**	**$33.1**	**$33.0**	**$20.4**	**$43.3**	**$28.2**	**$259.3**

Table 7: Estimated Future Cleanup Costs by Operational/Reporting Status (in millions)

	Installations visited						
Operational and reporting status	**Cannon AFB, NM**	**Vandenberg AFB, CA**	**Ft. Carson, CO**	**Ft. Polk, LA**	**Camp Pendleton MCB, CA**	**Cherry Point MCAS, NC**	**Total**
Costs included in DERP reporting[a]	$ .4	$ 6.2	$14.7	$15.2	$ 3.5	$21.2	**$61.1**
Unreported costs for ongoing operation sites	3.4	27.0	18.1	5.0	36.9	.7	**91.1**
Unreported costs for inactive and/or closed operation sites	97.4	0	.2	.2	2.9	6.4	**107.1**
Total	**$101.2**	**$33.1**	**$33.0**	**$20.4**	**$43.3**	**$28.2**	**$259.3**

[a]Includes only those DERP reported sites falling within the scope of our review (e.g., inactive/closed landfills.)

Note: Totals may not add due to rounding.

Table 8: Errors in Real Property Records

	Installations visited						
Types of errors	**Cannon AFB, NM**	**Vandenberg AFB, CA**	**Ft. Carson, CO**	**Ft. Polk, LA**	**Camp Pendleton MCB, CA**	**Cherry Point MCAS, NC**	**Total**
Additions not made	11	14	52	24	54	27	**182**
Deletions not made	0	0	0	24	0	0	**24**
Categorized incorrectly	5	0	1	20	4	1	**31**
Total	**16**	**14**	**53**	**68**	**58**	**28**	**237**

GAO Contacts and Staff Acknowledgments

GAO Contacts

Molly B. Boyle (202) 512-9524

Dianne D. Guensberg (202) 512-5285

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