

Audit



Report

DOD MANAGEMENT OF UNDERGROUND STORAGE TANKS

Report No. 99-008

October 8, 1998

Office of the Inspector General
Department of Defense

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Acronyms

DLA	Defense Logistics Agency
EPA	Environmental Protection Agency
RCRA	Resource Conservation and Recovery Act
UST	Underground Storage Tank



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October 8, 1998

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION
AND TECHNOLOGY
DEPUTY UNDER SECRETARY OF DEFENSE
(ENVIRONMENTAL SECURITY)
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL
MANAGEMENT AND COMPTROLLER)
ASSISTANT SECRETARY OF THE AIR FORCE
(FINANCIAL MANAGEMENT AND COMPTROLLER)
DIRECTOR, DEFENSE LOGISTICS AGENCY
AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Summary Report on DoD Management of Underground Storage Tanks
(Report No. 99-008)

We are providing this report for review and comment. This report summarizes the results of Inspector General, DoD, and Service audit agency audits on the management of DoD underground storage tanks. We considered management comments on a draft of this report in preparing the final report.

DoD Directive 7650.3 requires that all audit recommendations be resolved promptly. As a result of management comments, we added Recommendation A.4. to the Deputy Under Secretary of Defense (Environmental Security). We request that the Deputy Under Secretary of Defense (Environmental Security) provide comments on that recommendation by December 7, 1998.

We appreciate the courtesies extended to the audit staff. For additional information on this report, please contact Mr. Joseph P. Doyle at (703) 604-9348 (DSN 664-9348) or Ms. Addie M. Beima at (703) 604-9231 (DSN 664-9231). See Appendix F for the report distribution. The audit team members are listed inside the back cover.

A handwritten signature in black ink, reading "Robert J. Lieberman".

Robert J. Lieberman
Assistant Inspector General
for Auditing

Office of the Inspector General, DoD

Report No. 99-008
(Project No. 6CK-5051.05)

October 8, 1998

Summary Report on DoD Management of Underground Storage Tanks

Executive Summary

Introduction. This audit was jointly conducted by the Inspector General, DoD, and the Army, Navy and Air Force audit agencies. The Service audit agencies issued reports with recommendations to their respective Services. The Inspector General, DoD, issued reports with recommendations to the Army, Defense Logistics Agency and Deputy Under Secretary of Defense (Environmental Security). The audit was performed in response to a request from the Assistant Deputy Under Secretary of Defense (Environmental Quality) to determine DoD compliance with the Resource Conservation and Recovery Act, Subtitle I (RCRA). RCRA requires all underground storage tanks to be equipped with specified minimum spill, overflow, leak detection, and corrosion protection by December 22, 1998. As of March 1996 the Army, Navy, Air Force, and Defense Logistics Agency reported having 11,389 underground storage tanks at 222 installations. Our audit was limited to installations having more than 10 underground storage tanks.

Audit Objectives. The primary audit objective was to evaluate underground storage tank management at DoD installations. Specifically, we determined:

- the accuracy of underground storage tank data reported to the Deputy Under Secretary of Defense (Environmental Quality);
- the status of underground storage tank compliance with RCRA;
- whether officials at DoD installations established underground storage tank compliance plans and schedules, and provided adequate funds to bring underground storage tanks into compliance by the RCRA deadline; and
- whether management controls were adequate to ensure compliance with RCRA.

Audit Results. DoD will not achieve full compliance with RCRA by December 1998. Management controls were not adequate, at the time of the audit, to ensure that DoD installations would bring at least 769 known underground storage tanks (400 Army-owned storage tanks and 369 secondary tanks attached to oil-water separators) into compliance by the deadline. As a result, DoD risked disruption of operations, and fines of up to \$10,000 per day, per noncompliant underground storage tank, or \$7,690,000 per day (769 x \$10,000) (Finding A). Management acted promptly on this information and now projects compliance at all but a few sites.

DoD installations reported inaccurate underground storage tank data to the Deputy Under Secretary of Defense (Environmental Security). Managers provided outdated data, erroneously included unregulated tanks in environmental requirements, and failed to report RCRA regulated underground storage tanks. As a result, underground storage

tank inventories were overstated, and environmental compliance funds may not have been optimally utilized (Finding B). See Part I for discussion of the audit results and Appendix A for details on the management control program.

Summary of Recommendations. We recommend that the Deputy Under Secretary of Defense (Environmental Security) require the Services and the Defense Logistics Agency to identify the underground storage tanks that will not be compliant with RCRA by December 22, 1998, and develop detailed plans to bring the tanks into compliance; inform the Environmental Protection Agency and state regulatory officials of the underground storage tanks that will not be compliant by the deadline and work with them to develop an action plan that will permit DoD to continue operations without incurring significant fines until compliance can be achieved; and ensure that DoD installations implement Defense Planning Guidance for all underground storage tank environmental compliance projects. Also, issue guidance on the applicability of RCRA to secondary tanks attached to oil-water separators and heating oil tanks; and request the DoD installations to review environmental compliance budgets, identify and report on funds appropriated to bring unregulated tanks into compliance with RCRA, and reprogram those funds for other use. In addition, we recommend that future "Defense Environmental Compliance Program Review" data calls specify what information the DoD installations should report. As a result of management's comments, we added a recommendation that the Deputy Under Secretary specify the number of tanks that are still not compliant and identify related compliance schedules.

Management Comments. The Deputy Under Secretary of Defense (Environmental Security) concurred with all recommendations. The Deputy Under Secretary required the Services and the Defense Logistics Agency to report on the status of their underground storage tank programs, and to plan, program, and budget to meet the RCRA deadline; coordinate with State and Federal regulatory officials to preclude incurring fines until compliance can be achieved; ensure that DoD installations implement Defense Planning Guidance; and review compliance budgets to identify and reprogram funds appropriated to bring unregulated tanks into compliance. The Deputy Under Secretary agreed to clarify future data calls and issue guidance in FY 1999 on the applicability of RCRA to secondary tanks attached to oil-water separators and heating oil tanks. The Army Assistant Chief of Staff for Installation Management provided unsolicited comments disagreeing with audit conclusions and recommendations because they were based on 1997 data. The Assistant Chief of Staff stated that, subsequent to the audit, the Army took unprecedented initiatives to ensure full RCRA compliance by the deadline. See Part I for a summary of management comments and Part III for the complete text of management comments.

Audit Response. The Deputy Under Secretary comments were fully responsive to the draft recommendations. The Army comments were considered in formulating the final report. We commend the Deputy Under Secretary and the Military Departments for any actions taken to accelerate the effort to bring DoD underground storage tanks into compliance with RCRA. As a result of management comments, we added a recommendation to the Deputy Under Secretary of Defense (Environmental Security) to specify the number of underground storage tanks that are still not compliant and identify related compliance schedules. We request that the Deputy Under Secretary of Defense (Environmental Security) provide comments on the final report by December 7, 1998.

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Part I - Audit Results

Audit Background

This audit was performed at the request of the Assistant Deputy Under Secretary of Defense (Environmental Quality) and jointly conducted by the Inspector General, DoD, and the Army, Navy, and Air Force audit agencies. The Deputy Under Secretary, as part of a semiannual DoD Environmental Compliance Program Review, requested that DoD installations report the number of known underground storage tanks (USTs) subject to the requirements of the Resource Conservation and Recovery Act, Subtitle I, (RCRA); the status of UST compliance with RCRA; and the likelihood that regulated USTs will be compliant with RCRA by December 22, 1998. According to the March 1996 report to the Deputy Under Secretary of Defense (Environmental Security), DoD installations managed 11,389 USTs at 222 locations having more than 10 USTs.

Due to inconsistencies in UST data reported by the DoD installations in semiannual reports, the Deputy Under Secretary was not certain that DoD would meet RCRA requirements within the specified time frames. As a result, the Deputy Under Secretary requested the audit to determine whether DoD USTs would be compliant with RCRA by December 22, 1998.

Regulated USTs. RCRA defines a UST as any tank and connected piping that contains a regulated substance and has ten percent or more of its volume underground. Regulated substances include motor fuels, jet fuels, lubricants, petroleum solvents, and used oils. USTs storing heating oil for use on the premises where the tanks are located are exempt from RCRA.

UST Criteria. USTs owned and operated by DoD are subject to Federal, state, and local statutory and regulatory guidance. Federal UST statutory provisions are found at 42 United States Code 6991 - 6991h. Implementing regulations are located in Title 40 Code of Federal Regulations, Chapter 1, Part 280, "Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks," September 23, 1988 (revised July 1, 1995). We considered both statutory and regulatory requirements in our analysis of UST management. References to RCRA in this report include both the statute and regulation. USTs owned and operated by DoD installations are also subject to Component UST regulations and instructions.

Federal Regulations. RCRA sets minimum standards for spill, overflow, and corrosion protection to be included in new USTs as well as standards for upgrading, replacing, and closing existing USTs. Existing USTs (those installed before December 22, 1988) were required to have functional leak detection methods by December 1993. By December 22, 1998, existing USTs must be upgraded to have spill, overflow, and corrosion protection; otherwise the USTs must be removed, closed in place, or replaced with a new UST. New USTs must be installed according to industry codes and must have leak detection as well as spill, overflow and corrosion protection.

State Regulations. Each state has its own standards and corrective action requirements for noncompliant USTs. Subject to Environmental Protection Agency (EPA) approval, RCRA allows states to establish UST programs that are more stringent than the Federal UST program. As of October 1996, the EPA had approved programs in 23 states as shown in Table 1.

Table 1. States With EPA-Approved UST Programs

Arkansas	Maryland	Oklahoma
Connecticut	Massachusetts	Rhode Island
Delaware	Mississippi	South Dakota
Georgia	Montana	Texas
Iowa	Nevada	Utah
Kansas	New Hampshire	Vermont
Louisiana	New Mexico	Washington
Maine	North Dakota	

Audit Objectives

Our primary audit objective was to evaluate UST management at DoD installations. Specifically, we determined:

- the accuracy of UST data reported to the Deputy Under Secretary;
- the status of UST compliance with RCRA;
- whether officials at DoD installations established UST compliance plans and schedules, and provided adequate funds to bring underground storage tanks into compliance by the RCRA deadline; and
- whether management controls were adequate to ensure compliance with RCRA.

This report summarizes the results of the joint audit conducted by the Inspector General, DoD, and the Army, Navy, and Air Force audit agencies. It also includes the Inspector General, DoD audit results at Bolling, Griffiss, Malmstrom, Minot, and Hickam Air Force Bases, which were not reported in Air Force Audit Agency Project No. 97052025, "Underground Storage Tank Environmental Compliance," August 25, 1997. Issues identified at those installations are addressed in Finding B. Air Force Audit Agency did not make Air Force-wide projections on the numbers and status of USTs. Therefore, this report combines the results of Air Force Audit Agency field work with that of the IG, DoD, for the purpose of providing statistical Air Force-wide UST projections. See Appendix A for a discussion of the audit process and Appendix B for a summary of UST coverage related to the audit objectives. See the findings for a discussion of the material weaknesses identified, and Appendix A for the details of our review of the management control program.

Finding A. UST Compliance With RCRA

DoD USTs will not achieve full compliance with RCRA by December 1998. Approximately 53 percent (3,293 of an estimated 6,240) of the RCRA-regulated USTs were projected to be noncompliant as of April 1997. Furthermore, DoD managers had not established plans or identified resources to bring at least 400 Army-owned USTs and 369 DoD-owned secondary tanks attached to oil-water separators into compliance in time to meet the statutory deadline. This condition occurred because of a lack of management oversight and program emphasis. As a result, DoD risked disruptions to operations and potential monetary fines of up to \$10,000 per day, per noncompliant UST, or \$7,690,000 (769 x \$10,000) per day, after December 22, 1998.

Compliance

After eight years of lead time to bring USTs into compliance, approximately 53 percent of DoD-owned RCRA-regulated USTs were projected to still be noncompliant. Table 2 summarizes the total USTs reported to the Deputy Under Secretary in March 1996, the number of statistically projected USTs subject to RCRA, and the number of USTs statistically projected to be noncompliant as of April 1997. The Army had the largest number of noncompliant USTs with Navy, Air Force, and the Defense Logistics Agency (DLA) respectively accounting for the remainder.

Table 2. Projected Noncompliant USTs

<u>Service</u>	<u>Total USTs Reported March 1996</u>	<u>Projected USTs April 1997</u>	<u>Projected Noncompliant USTs - April 1997</u>
Army	4,015	2,218	1,620
Navy	2,654	834	519
Air Force	3,047	2,708	905
Marines*	1,591	416	241
DLA*	82	64	8
Total	11,389	6,240	3,293

*DLA and Marine Corps numbers are actual based on a census strata. See Appendix C.

Plans and Resources. Some DoD managers had not established plans or identified resources to bring USTs into compliance with RCRA. As a result, they may not be able to bring their USTs into compliance to meet the December 22, 1998, deadline.

Plans. Managers had not established plans to bring at least 769 USTs into compliance in time to meet the RCRA deadline. Army predicted that 400 of their USTs would not be compliant by December 22, 1998. Also, managers across DoD excluded another 369 secondary tanks attached to oil-water separators from compliance plans. In addition, DoD managers at 14 of the

83 installations visited may not be able to bring 395 USTs that they inadvertently omitted from compliance plans into compliance by the deadline. Managers of some of the 395 tanks said that plans to bring their USTs into compliance were not separately identified, but were informally included in overall environmental budgets. Documentation supporting the overall environmental budgets did not include UST-related projects or identify actions managers planned to bring USTs into compliance. Because managers had not prepared work requests, initiated contracting actions, or otherwise documented UST projects, we could not verify that any of the 395 USTs were included in environmental compliance plans.

Resources. Some UST managers had not identified the resources to bring USTs into compliance with RCRA. Defense Planning Guidance requires that the cost of environmental compliance be captured and recorded on the "Summary of Base Support" (Exhibit Fund-22) for each business area. However, funds for UST projects were not always identified in environmental compliance budgets or supporting justification documentation. As a result, management's need to fund and undertake projects to comply with statutory requirements was not evident and we could not verify that they intended to undertake projects to meet 1998 RCRA UST standards in a timely fashion.

Time. DoD may not be able to bring its USTs into compliance in time to meet the December 22, 1998, deadline. With approximately 53 percent of the USTs still not compliant, and the rapidly approaching compliance deadline, management will not have time to bring all of the RCRA-regulated USTs into compliance unless managers significantly increase their efforts and dedicate resources to do so. Even with increased emphasis, Army officials predicted that about 400 of their regulated USTs will not be compliant by the deadline.

Management Oversight and Program Emphasis

UST managers did not adequately oversee the UST program and emphasize the need to bring USTs into compliance with RCRA. Senior officials were not aware of the lack of UST compliance progress, the inconsistent interpretation and implementation of RCRA, or resources needed to bring USTs into compliance. Furthermore, UST managers focused on satisfying competing environmental requirements and failed to identify UST compliance projects in budget documents intended to emphasize statutory requirements.

Management Oversight. Oversight of UST programs was not adequate and did not ensure that senior officials were aware of the progress being made toward meeting RCRA requirements, that the installations consistently implemented RCRA guidance, or that UST programs were adequately staffed. For example:

- Although RCRA was effective December 22, 1988, the installations did not report on their effectiveness in achieving compliance with the statute until 1994, six years later. Subsequent data reported to the Deputy Under Secretary was not verified until 1997, one year before the compliance deadline.

Finding A. UST Compliance With RCRA

- DoD did not standardize the implementation of RCRA directives to ensure consistent interpretation and implementation of the Act.
- According to Army Audit Agency Report No. AA 98-134, "Management of Underground Storage Tanks," senior Army management did not provide the personnel resources needed to bring USTs into compliance. Staffing of UST programs at audited installations was not consistent with the number of noncompliant tanks, the rapidly closing compliance deadline, and efforts needed to get USTs into compliance. The under staffing may have adversely affected Army ability to bring its USTs into compliance in a timely fashion.

Program Emphasis. Management did not always emphasize UST program compliance with RCRA. Instead, they focused resources on satisfying competing environmental requirements. They also failed to identify UST compliance projects in budget documents.

Competing Requirements. The installations had numerous competing Federal, state, and local statutory requirements that diverted resources away from RCRA compliance projects. The most notable situation was at Fort Bragg where, according to environmental officials, 80 percent of their 1,400 heating oil tanks were leaking. They stated that they were statutorily required to upgrade, close, or remove and remediate the leaking heating oil tanks upon discovery. Also, abandoned USTs were routinely being unearthed at construction sites, which halted the construction projects until the sites could be assessed and the tanks removed. According to Fort Bragg officials, such activities consumed a significant amount of their environmental resources and hampered their ability to focus on RCRA compliance projects.

Defense Planning Guidance. As previously discussed, managers did not always document RCRA compliance projects in the environmental section of the Summary of Base Support budget exhibit to ensure that senior management was aware of and funded UST projects. Defense Planning Guidance requires that the cost of environmental compliance be captured and recorded on the Summary of Base Support (Exhibit Fund-22) for each business area to ensure that adequate plans are established and funds provided to bring Class II projects into compliance. DoD Instruction 4715.6, "Environmental Compliance," Enclosure 3, April 24, 1996, defines Class II projects as projects that address areas of noncompliance where corrective action is required by a specific future date, such as USTs. Managers must fund Class II projects to allow for timely execution of projects to meet statutory deadlines. However, 764¹ noncompliant USTs were not included in RCRA compliance plans and budgets, and officials who should have been tracking compliance projects did not question their omission.

¹The 764 USTs were composed of the 369 secondary tanks attached to oil water separators + 395 USTs inadvertently omitted from compliance plans.

Consequence of Noncompliance

DoD risks operational disruptions and monetary penalties up to \$10,000 per day, per noncompliant UST after December 22, 1998. Based on our calculation of at least 769 USTs being noncompliant in April 1997, daily fines could be as much as \$7,690,000.

Disruption of Operations. DoD risks disruption of operations unless its USTs comply with RCRA. To enforce RCRA compliance, some state regulatory agencies will not permit delivery of products to tanks without a valid permit after December 22, 1998. Inspector General, DoD, Report No. 98-113, "State Certification of Underground Storage Tanks," April 15, 1998, identified 1,498 discrepancies that could result in operational disruptions. For example, the review of DoD- and state-generated UST inventories determined that operations could be curtailed at 487 USTs (that were included in DoD-generated UST inventories but were not included in state-generated inventories) until DoD properly registers the tanks and proves them to be compliant. State regulatory officials planned to fine or penalize anyone delivering products to a UST that does not have a valid state permit. This would effectively shut down operation of noncompliant USTs after December 22, 1998.

Fines and Penalties. DoD could be assessed monetary penalties of up to \$7,690,000 per day after December 22, 1998, for the 769 noncompliant USTs. RCRA provides for EPA-levied fines and penalties of up to \$10,000 per day per noncompliant UST after December 22, 1998. Representatives from the EPA National Underground Storage Tank Office stated that they intend to have state regulatory officials assess DoD compliance with RCRA and, based on state determinations, impose unspecified fines and penalties for noncompliance. Although it was the DoD position that the Government did not waive sovereign immunity as it pertains to UST fines, regulatory officials in the 31 states surveyed also planned to impose unspecified fines against DoD for failing to comply with RCRA. The Army Audit Agency reported that some state regulatory officials believed that they could and would impose fines of up to \$50,000 per day, per noncompliant UST. The Air Force Audit Agency also concluded that the Air Force could be fined up to \$10,000 per day for each UST not in compliance with RCRA after December 1998.

Conclusion. Even with increased emphasis, DoD may not achieve full compliance with RCRA by the statutory deadline. At least 769 USTs (400 Army USTs and 369 secondary tanks attached to oil-water separators) were expected to be noncompliant after December 22, 1998. The Deputy Under Secretary should inform EPA and state regulatory officials that DoD will not be fully compliant with RCRA by the deadline and work with them to develop an action plan to permit DoD to continue operations without incurring significant fines or penalties. For example, the Deputy Under Secretary could agree with EPA and state regulatory officials to require the installations to remove noncompliant USTs from service after December 22, 1998; and use fuel purchase cards or other means to satisfy installation requirements. Such an agreement could give the installations an additional year to bring their USTs into compliance with RCRA and allow them to avoid fines and penalties of up to \$7,690,000.

Recommendations, Management Comments, and Audit Response

We recommend that the Deputy Under Secretary of Defense (Environmental Security):

1. Require the Services and the Defense Logistics Agency to identify the underground storage tanks that will not be compliant by December 22, 1998, and develop detailed plans including resources and efforts to bring tanks into compliance with the Resource Conservation and Recovery Act.

Management Comments. The Deputy Under Secretary concurred stating that, because of the attention focused on underground storage tanks during the audit, the Services and the Defense Logistics Agency made significant progress in data collection improvements, resource allocation, and management action plans. The Deputy Under Secretary also increased emphasis on underground storage tank management in guidance, instructions, and reviews, and required the Services and the Defense Logistics Agency to work with State regulatory officials to reconcile their storage tank inventories. As a result, they expect to meet the RCRA deadline, except in a few locations.

2. Inform the Environmental Protection Agency and state regulatory officials that DoD underground storage tanks will not be in compliance by December 22, 1998; and develop an action plan to permit DoD to continue operations without incurring significant fines or penalties until compliance can be achieved.

Management Comments. The Deputy Under Secretary concurred stating that they brief the Environmental Protection Agency semiannually on DoD efforts to comply with the Resource Conservation and Recovery Act deadline. The Environmental Protection Agency delegated tank program management to the states, so the Deputy Under Secretary instructed the Services and Defense Logistics Agency to also coordinate their programs with the states and reconcile tank inventories before the deadline. As a result, with the exception of three Naval installations in Florida, the Services and the Defense Logistics Agency expect to meet the deadline. The Navy negotiated agreements with Florida regulatory officials to preclude disruptions to operations and related fines or penalties.

3. Ensure that DoD installations implement Defense Planning Guidance for all underground storage tank environmental compliance projects.

Management Comments. The Deputy Under Secretary concurred stating that they and the Office of the Secretary of Defense (Comptroller) environmental budget analyst have increased emphasis on tank program management during the budget process. Also, the Deputy Under Secretary now requires the Services and the Defense Logistics Agency to provide more detailed explanations of their underground storage tank investments and progress towards meeting the deadline.

Added Recommendation. As a result of management comments to the draft report, their unprecedented efforts to bring storage tanks into compliance, and the obsolescence of projections in the draft report, we added Recommendation 4 to have the Deputy Under Secretary of Defense (Environmental Security) specify the number of underground storage tanks that are still not compliant and identify related compliance schedules.

4. Specify how many underground storage tanks are still noncompliant and identify related compliance schedules.

Audit Response. We ask that the Deputy Under Secretary of Defense (Environmental Security) respond to Recommendation 4 in her comments on the final report.

Finding B. Accuracy of UST Reporting

DoD installations reported inaccurate UST data to the Deputy Under Secretary of Defense (Environmental Security). Managers reported outdated UST data, erroneously included unregulated tanks in environmental requirements, and failed to report RCRA-regulated USTs. The inaccurate reporting occurred because managers inconsistently interpreted ambiguous guidance on certain classes of USTs and data calls were imprecise. As a result, the UST inventories were overstated and environmental compliance funds may not have been optimally utilized.

Reporting

DoD inaccurately reported an inventory of 11,389 USTs at 222 installations as of March 1996. The inaccurate reporting was the result of a combination of reporting errors.

Reporting Accuracy. DoD installations reported to the Deputy Under Secretary an inaccurate inventory of 11,389 USTs at 222 installations as of March 1996. Table 3 summarizes the March inventories.

<u>Defense Component</u>	<u>Reported</u>
Army	4,015
Navy	2,654
Air Force	3,047
Marines	1,591
DLA	82
Total	11,389

Of the 222 installations, 83 statistically sampled installations reported 6,943 USTs to the Deputy Under Secretary in response to the March 1996 data call (Appendix C). We could not verify the accuracy of UST reporting at 33 of the 83 installations because managers did not maintain required UST records. However, for 50 of the 83 installations, we were able to ascertain the number of USTs that should have been reported in March 1996. Of the 50 installations, 37 reported inaccurate UST data. Additionally, the 37 installations collectively overstated their inventories by approximately 36 percent. They reported 3,251 RCRA-regulated USTs when they actually had only 2,091 USTs.

Reporting Errors. The overstatement of RCRA-regulated USTs reported to the Deputy Under Secretary in March 1996 was the result of a combination of reporting errors. Some UST managers reported outdated data that had been collected for Base Realignment and Closure reporting and a pre-1996 data call,

and others inappropriately reported environmental measure of merit baseline data. UST managers also included 872 unregulated heating oil tanks and failed to report 369 secondary tanks attached to oil-water separators.

Outdated UST Data. The installations reported outdated UST data to the Deputy Under Secretary in response to the March 1996 data call. In addition to reporting old data that had been collected for other purposes (e.g. Base Realignment and Closure reporting), the installations reported USTs that were no longer owned by DoD or that had been removed from service. For example, reporting officials within the Office of the Chief of Naval Operations did not believe that the Navy's UST inventories had changed significantly from the September 1995 data call, so they used the same data to respond to the March 1996 data call. Air Force officials reported measure of merit baseline data for at least one installation and reported old, unverified data for two others. Some managers reported USTs that had been removed from the ground or reported USTs located on land no longer owned by DoD. Because some managers were confused about which USTs to report, they reported outdated data that contributed significantly to the March 1996 reports being overstated.

Unregulated USTs. The installations included 883 non RCRA-regulated USTs in their March 1996 reports. Eighteen of the audited installations reported 872 heating oil tanks that were not RCRA-regulated. In addition, the Army inappropriately reported 11 USTs at the Stratford Army Engine Plant. The facility had underground piping associated with 11 above ground tanks that had at one time contained state-regulated substances. While the substances were state-regulated, they were not regulated under RCRA. Non RCRA-regulated USTs accounted for about 13 percent (883 of 6,943) of the total USTs reported by the audited installations to the Deputy Under Secretary in March 1996.

RCRA-Regulated USTs Not Included In Reports. Managers at the audited installations failed to include 369 secondary USTs attached to oil-water separators in their March 1996 reports. These USTs were excluded from reports because managers did not understand that they were subject to RCRA. To avoid receiving outdated and inaccurate data in response to future data calls, the Deputy Under Secretary should be more specific about what data should be included in the reports.

Inconsistent Interpretations

Ambiguous and conflicting guidance on certain classes of regulated USTs resulted in the installations inconsistently interpreting and implementing UST guidance. Also, Deputy Under Secretary data calls were imprecise and not clearly understood by some UST managers.

Ambiguous and Conflicting Guidance. RCRA guidance on secondary tanks attached to oil-water separators and heating oil tanks was ambiguous and implementing guidance promulgated by the Services was conflicting. In the absence of clarifying instructions from the Deputy Under Secretary of Defense (Environmental Security), the Services and UST managers did not consistently interpret and implement RCRA guidance.

Finding B. Accuracy of UST Reporting

Ambiguous Guidance on USTs Attached to Oil-Water Separators.

Ambiguous guidance on secondary tanks attached to oil-water separators may result in 369 USTs not being compliant with RCRA after December 1998. The preamble to Title 40 Code of Federal Regulations, Chapter 1, Part 280, "Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (USTs)," (40 CFR § 280), considers oil-water separators as wastewater treatment tanks and exempted them from regulation under RCRA. However, neither guidance in the preamble, 40 CFR § 280, nor Defense Component implementing directives addressed secondary holding tanks attached to oil-water separators. Some installations installed secondary holding tanks to collect and store large quantities of hazardous waste so they could reduce the need to frequently pump and dispose of the waste generated by oil-water separators. Because the guidance was ambiguous, UST managers inconsistently reported secondary tanks attached to oil-water separators. Table 4 summarizes the treatment of secondary tanks attached to oil-water separators at the 83 audited sites. See Appendix D for a detailed presentation of how installations regulated secondary USTs attached to oil-water separators.

Table 4. DoD Regulation of USTs Attached to Oil-Water Separators

<u>Defense Component</u>	<u>USTs Attached to Oil/Water Separators</u>	<u>Considered Regulated</u>	<u>Considered Unregulated</u>
Army	336	27	309
Navy	57	44	13
Air Force	145	110	35
Marines	24	12	12
Total	562	193	369

In response to a management inquiry, the Air Force Legal Services Agency issued an April 1, 1997 opinion that tanks attached to oil-water separators would probably not be exempt from UST regulations. EPA officials also believed the secondary tanks were subject to RCRA. The Deputy Under Secretary of Defense (Environmental Security) should issue guidance on the applicability of RCRA to USTs attached to oil-water separators and require that the guidance be consistently implemented throughout DoD.

Conflicting Guidance on Heating Oil Tanks. The installations did not consistently interpret or implement RCRA guidance on heating oil tanks. They also did not request clarification of the guidance from the Deputy Under Secretary.

RCRA Guidance. RCRA guidance on heating oil tanks is at 40 CFR § 280. The guidance excluded from the definition of USTs tanks used to store heating oil when the oil was to be consumed on the premises where it

was stored. As a result, most DoD heating oil tanks were expressly exempted from regulation under RCRA. However, 18 installations regulated heating oil tanks under RCRA (Appendix E).

Army Guidance. Army Regulation 200-1, "Environmental Protection and Enhancement," section 5-7, "USTs," April 23, 1990, conflicts with RCRA in that it did not recognize the categorical exclusion given to heating oil tanks. The Army regulation required managers to comply with the most stringent Federal, state, local, or Army requirements for heating oil tanks. The Army Legal Services Agency did not agree with Army Regulation 200-1 and issued a statement that supported the RCRA exemption of heating oil tanks from regulation under Subtitle I. The Army Legal Services Agency also opined that states may not broaden Federal statutes by regulating a class of USTs that were expressly excluded by the statute. However, 10 Army installations audited included 593 heating oil tanks in their March 1996 reports because the states in which they were located regulated them or because the installations incorrectly considered them to be regulated.

Navy, Air Force, and DLA Guidance. Navy, Air Force, and DLA implementing directives required managers to follow the more protective Federal, state, or local UST regulation. This guidance was not consistent with RCRA and resulted in installations treating at least 279 heating oil tanks as though they were regulated by RCRA. Table 5 presents the number of heating oil tanks regulated by the installations.

<u>Defense Component</u>	<u>Number of Installations</u>	<u>Regulated Heating Oil Tanks</u>
Army	10	593
Navy	2	64
Air Force	3	47
Marines	2	131
DLA	1	37
Total	18	872

Conflicting guidance resulted in 872 USTs at 18 of the 83 audited sites being inappropriately reported to the Deputy Under Secretary in March 1996. The Deputy Under Secretary of Defense (Environmental Security) needs to issue clear guidance on the applicability of RCRA to heating oil tanks and ensure that the guidance is consistently implemented throughout DoD.

UST Data Calls. Deputy Under Secretary environmental data calls should be more precise. For example, the March 1996 UST data call requested installations to report for FY 1994 through FY 1998 the number of known regulated USTs under RCRA and the number of USTs meeting 1998 standards; graph the total number of USTs and number of USTs meeting 1998 standards on a line chart for FY 1995 and FY 1996; and explain efforts undertaken to achieve

Finding B. Accuracy of UST Reporting

compliance with the 1998 RCRA standards if the regulatory requirements could not be met. However, the data request for the “number of known regulated USTs under RCRA” did not make clear that the Deputy Under Secretary wanted the installations to report only currently owned, RCRA-regulated USTs that had not been closed in accordance with an applicable industry standard. As a result, managers reported the number of USTs known to be on their installations including tanks that had been appropriately closed. Clarification of future data calls could preclude some of the inaccurate reporting experienced in the past.

Impact of Reporting Inaccuracies

Inaccurate reporting of USTs overstated UST inventories and may have resulted in environmental compliance funds not being optimally utilized.

Overstated UST Inventories. A combination of reporting errors resulted in UST inventories being collectively overstated by 36 percent at 37 DoD installations. In addition, the installations reported 11,389 RCRA-regulated USTs at 222 installations as of March 1996 but only had a projected 6,240 USTs as of April 1997. The variance was not entirely attributable to interim actions taken to bring USTs into compliance with RCRA. Without reliable information, senior managers were unable to make informed environmental compliance decisions and could not be sure they would meet 1998 RCRA requirements in a timely fashion.

Use of Environmental Compliance Funds. The UST inventory overstatement may have contributed to the ineffective use of environmental compliance funds. As discussed in Finding A, RCRA-regulated USTs were considered to be Class II projects that were required to be identified in budget documents and funded to ensure timely compliance with statutory requirements. As a result, environmental funds should have been distributed to the installations based on the RCRA requirements identified in their respective budget documents. We were unable to determine the amount of funds provided to the installations to bring unregulated USTs into compliance with RCRA. As previously noted, managers did not always identify specific USTs included in compliance budget requests and, in some cases, did not identify UST projects they said they intended to undertake with environmental funds provided them. To the extent that the installations erroneously included unregulated USTs in their budgets and received funds to bring them into compliance with RCRA, they should identify and reprogram those funds to other uses.

Recommendations, Management Comments, and Audit Response

We recommend that the Deputy Under Secretary of Defense (Environmental Security):

1. Issue guidance on the applicability of Resource Conservation and Recovery Act, Subtitle I, to secondary tanks attached to oil-water separators and to heating oil tanks, and ensure that the guidance is consistently implemented across DoD.

Management Comments. The Deputy Under Secretary partially concurred stating that specific DoD guidance on the applicability of Resource Conservation and Recovery Act, Subtitle I, to secondary tanks attached to oil-water separators and to heating oil tanks, is unnecessary at this time. In response to the audit, the Army disseminated guidance on oil-water separators and heating oil tanks to all Major Commands. The Army guidance was shared with the other Services and the Defense Logistics Agency. The Deputy Under Secretary will issue standardized guidance regarding oil-water separators and heating oil tanks in FY 1999. The Services and the Defense Logistics Agency will continue to monitor Environmental Protection Agency and State policies concerning oil-water separators and heating oil tanks even though they are currently exempt from Resource Conservation and Recovery Act, Subtitle I.

Audit Response. The Deputy Under Secretary comments are responsive to the recommendation. No additional comments are needed in response to the final report.

2. Request the DoD installations to review environmental compliance budgets, identify and report on funds appropriated to bring unregulated tanks into compliance with the Resource Conservation and Recovery Act, Subtitle I, and reprogram those funds for other use.

Management Comments. The Deputy Under Secretary concurred stating that the environmental programs for the Services and the Defense Logistics Agency have been actively scrutinized for the last two fiscal years and the respective organizations given the opportunity to reprogram regulated and non-regulated tank budgets to important Class I projects.

3. Clarify future “Department of Defense Environmental Compliance Program Review” data calls specifying what information the managers should report.

Management Comments. The Deputy Under Secretary concurred stating that additional information has been added to the Environmental Quality Second Half FY 1998 In Progress Review Data Call to more clearly define an underground storage tank, regulated substances and guidance on heating oil tanks.

Part II - Additional Information

Appendix A. Audit Process

Scope

Work Performed and Limitations to Audit Scope. We reviewed DoD management of RCRA-regulated USTs at 83 locations to assess the validity of UST reporting and determine whether the tanks were compliant with 1998 RCRA requirements. The audit used a statistical sample comprising 6,943 USTs at 83 locations. The sample was derived from 12,924 USTs at 628 locations reported to the Deputy Under Secretary in March 1996. To obtain a sample that included the maximum number of USTs we could review cost-effectively, we excluded from the audit universe locations that reported 10 or less USTs, locations that closed as of March 1996, as well as all overseas locations. The resultant universe consisted of 11,389 USTs at 222 locations, or 88 percent of the 12,924 USTs. Due to inclement weather conditions, we also excluded Grand Forks Air Force Base from the sample (Appendix C).

DoD-wide Corporate Level Government Performance and Results Act (GPRA) Goals. In response to GPRA, the Department of Defense has established 6 DoD-wide corporate level performance objectives and 14 goals for meeting these objectives. This report pertains to achievement of the following objective and goal:

Objective: Fundamentally reengineer the Department and achieve a 21st century infrastructure. **Goal:** Reduce costs while maintaining required military capabilities across all DoD mission areas. (DoD-6)

DoD Functional Area Reform Goals. Most major DoD functional areas have also established performance improvement reform objectives and goals. This report pertains to achievement of the following functional area objective and goal:

Environmental Functional Area. Objective: Achieve compliance with applicable Executive Orders and Federal, State, inter-state, regional, and local statutory and regulatory environmental requirements. **Goal:** Comply with the Underground Storage Tank (UST) Program as determined by total number of known regulated USTs subject to and number of USTs meeting the 1998 Resource Conservation and Recovery Act Subtitle I standards under Title 42 U.S.C. 6901-6992d(k). (ENV-2.2)

General Accounting Office High Risk Area. The General Accounting Office (GAO) has identified several high risk areas in the DoD. This report provides coverage of the Defense Inventory Management area.

Methodology

This audit was jointly conducted by the Inspector General, DoD, and the Army, Navy, and Air Force audit agencies. We relied on the work of the Service audit agencies at 67 of the 83 locations included in the audit sample. We accomplished the following:

- interviewed environmental officials to determine the accuracy of UST inventories, and identify plans to bring USTs into compliance with RCRA by December 22, 1998;
- reviewed UST source documents including contracts, state permits, tank test and maintenance reports, and UST site drawings for the period October 1989 to March 1997 to determine the actual number of USTs subject to RCRA and their status of compliance with RCRA;
- reviewed FY 1997 and FY 1998 funding documents to determine if managers provided sufficient funds to bring USTs into compliance with RCRA;
- interviewed management control officials to identify controls relating to UST programs and reviewed management's self-evaluation processes; and
- reviewed applicable Environmental Compliance reports to determine whether there had been any prior findings related to the audit objectives and, if so, the status of corrective actions. There were no findings related to our audit objectives.

Technical Assistance. The Director, Quantitative Methods Branch of the Analysis Planning and Technical Support Directorate, Office of the Assistant Inspector General for Auditing, developed the statistical sample and made the statistical projections used in the report.

Statistical Sampling Plan. The statistical sampling plan estimates the total number of USTs and the number of USTs not in compliance with RCRA. The sample results provide data to evaluate the number of tanks for each analysis. The audit involved USTs at DoD installations with over 10 tanks as of March 1996. The population we sampled consisted of 11,389 tanks at 222 installations and included approximately 88 percent of all RCRA-regulated USTs reported by the installations at that time. A multi-stage cluster sample design was used to estimate the actual number of storage tanks at installations and the number of storage tanks not in compliance as of April 1997 (when the audit data was collected). The 222 installations were stratified by Military Service and 83 installations were selected from the population of 222 sites. Table A-1 provides more details of the population sample design.

Table A-1. UST Population Sample Design

<u>Defense Component</u>	<u>Population</u>		<u>Sample</u>	
	<u>Installations</u>	<u>USTs</u>	<u>Installations</u>	<u>USTs</u>
Army	82	4,015	24	2,201
Navy	61	2,654	23	1,477
Air Force	66	3,047	23 ¹	1,592
Marine Corps ²	11	1,591	11	1,591
DLA ²	<u>2</u>	<u>82</u>	<u>2</u>	<u>82</u>
Total	222	11,389	83	6,943

¹Twenty-four installations comprised the original Air Force sample. We did not conduct field work at Grand Forks Air Force Base because of flooding at the time of the audit.

²Census strata. One hundred percent of Marine Corps and DLA installations with over 10 USTs were included in the sample. Weights were applied in the statistical analysis to account for the different strata sizes so the five strata could be integrated.

Statistical Projections. We calculated the values in Table A-2 using stratified and cluster sampling methodologies. We estimate that the actual number of USTs is between 5,395 and 6,545, with 95 percent confidence. The point estimate, 6,240, is the statistically best unbiased single value estimator of the total number of USTs. We also estimate with 95 percent confidence that between 3,118 and 3,469 USTs are noncompliant. The point estimate for noncompliant USTs is 3,293.

Table A-2. Confidence Interval Table Of Statistical Projections For Underground Storage Tanks

	<u>95 Percent Confidence Interval</u>		
	<u>Lower Bound</u>	<u>Point Estimate</u>	<u>Upper Bound</u>
Total USTs	5,395	6,240	6,545
USTs Not In Compliance	3,118	3,293	3,469
Defense Components			
Army - total USTs	989	2,218	3,447
USTs not in compliance	778	1,620	2,462
Navy - total USTs	534	834	1,133
USTs not in compliance	270	519	768
Air Force - total USTs	1,450	2,708	3,966
USTs not in compliance	375	905	1,436
Marine Corps* - total USTs	N/A	416	N/A
USTs not in compliance	N/A	241	N/A
Defense Logistics Agency* - total USTs	N/A	64	N/A
USTs not in compliance	N/A	8	N/A

Confidence Interval Statement. We calculated the lower and upper bounds with 95 percent confidence.

*Census Strata. No estimates were made because 100 percent of Marine Corps and DLA installations reporting over 10 USTs in March 1996 were included in the sample.

Audit Type, Dates, and Standards. We performed this program audit from October 1996 through June 1998 in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. Accordingly, we included tests of management controls considered necessary. We did not rely on computer processed data for this audit.

Contacts During the Audit. We visited or contacted individuals and organizations within DoD, EPA, and state environmental agencies. Further details are available on request.

Management Control Program

DoD Directive 5010.38, "Management Control Program," August 26, 1996, requires installations to implement a comprehensive system of management controls that provides reasonable assurance that programs are operating as intended and to evaluate the adequacy of the controls.

Scope of Review of Management Control Program. We reviewed management controls over UST programs including controls established to ensure that UST data was accurately captured, tracked and reported; and compliance plans and budgets were adequate to achieve full compliance with RCRA by the statutory deadline. We also reviewed the results of management's self-evaluation of those management controls.

Adequacy of Management Controls. We identified material management control weaknesses for the installations as defined by DoD Directive 5010.38. Management controls were ineffective to ensure accurate reporting of UST data; implementation of Defense Planning Guidance to establish adequate plans and funds to bring USTs into compliance with RCRA; or to ensure consistent guidance on heating oil tanks and secondary tanks attached to oil-water separators. As of mid-1998, we calculated that all recommendations, if implemented, would improve management of the UST program and help achieve a cost avoidance of \$7,690,000 per day or more. The precise monetary impact attributable to the audit, however, cannot be quantified at this point. A copy of the report will be provided to the senior official responsible for management controls at the Deputy Under Secretary of Defense (Environmental Security) and Defense Component Headquarters.

Adequacy of Management's Self-Evaluation. The management self-evaluations did not identify the conditions identified by the audit because USTs were generally included in overall environmental assessable units and lacked visibility. Although DoD installations conducted the required evaluations, they did not include steps to evaluate the accuracy of reported UST data or the adequacy of plans and funds to bring USTs into compliance with RCRA.

Appendix B. Summary of UST Coverage

The Office of the Inspector General, DoD, and the Army, Navy, and Air Force audit agencies issued eight reports that addressed USTs.

Inspector General, DoD

Inspector General, DoD, Report No. 98-113, “State Certification of Underground Storage Tanks,” April 15, 1998, states that significant variances existed between state- and DoD-generated UST inventories. Operations could be disrupted at some DoD installations after December 22, 1998, if state regulatory agencies do not obtain accurate data with which to assess compliance with RCRA. The report recommended that the Deputy Under Secretary of Defense (Environmental Security) require UST managers to reconcile installation inventories with state-generated inventories, report discrepancies to state environmental regulatory officials, work with state environmental officials to reconcile discrepancies, and report reconciliations to the Deputy Under Secretary of Defense (Environmental Security). The Deputy Under Secretary of Defense (Environmental Security) concurred with the recommendations.

Inspector General, DoD, Report No. 98-021, “Management of Underground Storage Tanks at Defense Logistics Agency Centers,” November 13, 1997, states that the Defense Logistics Agency (DLA) did not adequately manage its UST program; reported inaccurate UST data to the Deputy Under Secretary of Defense (Environmental Security); did not implement Title 50, United States Code, Section 98, and Defense Planning Guidance to establish plans and provide adequate funds to bring noncompliant USTs into compliance with RCRA; and did not maintain complete UST files. The report recommended that the DLA centers establish management controls to ensure that current UST information is reported, and fully document and support UST projects in funding requests in consonance with Title 50, United States Code, Section 98 and Defense Planning Guidance. The report also recommended that DLA centers establish management controls to ensure that UST information is shared with tank managers and properly documented in centralized UST files; and ensure that documents required by EPA are maintained for each UST. DLA concurred with the recommendations.

Inspector General, DoD, Report No. 98-017, “Upgrade of the Interim TANKMAN System,” November 7, 1997, states that it was not cost-effective to proceed with the upgrade of the interim Army Tank Management (TANKMAN) System because it was unlikely the upgrade could be implemented in time to impact compliance with RCRA. It was also unlikely that the majority of storage tank managers would use the upgraded version of TANKMAN. The report did not make recommendations. The Deputy Under Secretary agreed with the preliminary audit finding and the Defense Environmental Security Corporate Information Management office discontinued the upgrade and reprogrammed \$98,000 to other projects.

Appendix B. Summary of UST Coverage

Inspector General, DoD, Report No. 97-208, "Management of Underground Storage Tanks at Fort Bragg," August 26, 1997, concludes that Fort Bragg could not provide a verifiable inventory of USTs on the installation and did not have a plan or adequate funds to guarantee that at least 212 regulated USTs would comply with RCRA by December 22, 1998. The report recommended that the Army conduct an independent survey to develop a complete, verifiable inventory, and determine UST compliance with RCRA. Also, the report recommended that the Army develop a plan and provide adequate funds to bring USTs into compliance with RCRA. The report also recommended that steps to test controls over the management of USTs be included in Fort Bragg's Environmental Natural Resources Division assessable unit. The Army concurred with all of the audit recommendations.

Army Audit Agency

U.S. Army Audit Agency Report No. AA 98-134, "Management of Underground Storage Tanks," March 16, 1998, states that some Army activities reported inaccurate inventories of USTs and tank compliance; did not fully plan for or execute removal, replacement, or upgrade actions on tanks not currently meeting compliance requirements; and did not ensure that funds would be programmed, budgeted, or available to perform the required removals and upgrades by the December 22, 1998 deadline. The report concluded that approximately 400 USTs would not be compliant after December 1998. The report recommended that the Army consider establishing "Tiger Teams" to add emphasis to the UST program and to assess the status of UST compliance with RCRA at all Army activities; require all Army activities to perform a one-time reconciliation of their USTs with state regulatory offices; establish more frequent interim reporting of compliance status of USTs through commanders at all levels; issue planning guidance; perform FY 98 Program Budget scrub to prioritize UST projects; and obtain definitive clarification of DoD and EPA policies and legal positions on heating oil tanks and oil-water separators, and ensure Army activities apply results immediately. The Deputy Assistant Chief of Staff for Installation Management directed the Army activities to immediately take action during the audit to look at all Army USTs, and Tiger Teams to start reviews in June 1997. The Army Audit Agency is conducting a follow on audit to determine whether the Army has taken adequate actions to ensure their USTs will be in compliance by the RCRA deadline.

Naval Audit Service

Naval Audit Service Report No. 018-98, "Management of Underground Storage Tanks," January 12, 1998, concludes that the Navy and Marine Corps reported inaccurate UST data to the Office of the Deputy Under Secretary of Defense (Environmental Security). The report concludes that Navy and Marine Corps UST managers established adequate plans, provided ample funds, and expected to achieve full compliance with RCRA by December 22, 1998. The report recommended that the Chief of Naval Operations (N45) and Commandant

of the Marine Corps (LFL) take steps to report accurate UST data to the Deputy Under Secretary of Defense (Environmental Security); and define what represents a UST for reporting purposes. Management agreed to take sufficient action on all recommendations.

Air Force Audit Agency

Air Force Audit Agency Project No. 97052025, "Underground Storage Tank Environmental Compliance," August 25, 1997, states that environmental managers reported inaccurate UST data to the Deputy Under Secretary, did not always include tanks in compliance schedules, and did not always ensure tank inventories were consistent with state-generated storage tank inventories. However, Air Force should have all noncompliant tanks upgraded, replaced or closed by December 1998. The report contained no recommendations. Management took actions during the audit to resolve reporting discrepancies, scheduling of tanks to comply with RCRA, and to require installation inventory reconciliation with state records. The report concludes that management had taken all actions necessary to correct identified deficiencies during the audit and would achieve full compliance with RCRA by December 1998.

Air Force Audit Agency Project No. 22097016, "Management of Underground Storage Tanks, 15th Air Base Wing, Hickam AFB, Hawaii," July 8, 1997, concludes that Air Force officials did not accurately report UST data to the Deputy Under Secretary; did not plan for or schedule all USTs for compliance with RCRA; and scheduled and funded duplicate UST upgrade, removal, or replacement work on two contracts. UST managers misinterpreted applicable regulations, and failed to review contract documentation and coordinate requirements with contract managers. The report recommended that managers ensure USTs are identified and included in compliance plans; establish procedures to review data and coordinate UST requirements; and ensure USTs are properly recorded and classified. Management concurred with audit recommendations.

Appendix C. March 1996 USTs

Reported and Actual USTs at the 83 Audited Installations as of March 1996

<u>Component</u>	<u>Installation</u>	<u>Reported USTs</u>	<u>Actual USTs</u>	<u>Difference</u>
Army				
	Adelphi Lab	21	12	9
	All Alaska Sites	171	144	27
	Florida NGB	53	51	2
	Ft. Benning	109	115	-6
	Ft. Bragg	600	ID	NA
	Ft. Campbell	109	109	0
	Ft. Dix	126	47	79
	Ft. Drum	16	36	-20
	Ft. Gordon	16	16	0
	Ft. Hamilton	64	14	50
	Ft. Huachuca	28	30	-2
	Ft. Indiantown Gap	13	16	-3
	Ft. Irwin	19	19	0
	Ft. Knox	136	136	0
	Ft. Monmouth	268	ID	NA
	Ft. Polk	15	142	-127
	Illinois NGB	33	33	0
	Letterkenny Army Depot	45	12	33
	New Jersey NGB	69	31	38
	Picatinny Arsenal	42	ID	NA
	Redstone Arsenal	17	23	-6
	Stratford Engine	11	0	11
	U.S. Army Garrison	127	103	24
	99th Reg CMND	93	1	92
	Total	2,201	1,090	201
Navy				
	FISC Oakland	29	ID	NA
	NALF San Clemente Island	35	ID	NA
	NAS Barbers Point	103	103	0
	NAS Cecil Field	238	46	192
	NAS Fallon	22	ID	NA

ID - Insufficient documentation to verify reported data

NA - Not applicable

Reported and Actual USTs at the 83 Audited Installations as of March 1996 (continued)				
<u>Component</u>	<u>Installation</u>	<u>Reported USTs</u>	<u>Actual USTs</u>	<u>Difference</u>
Navy				
	NAS Jacksonville	126	ID	NA
	NAS Key West	67	ID	NA
	NAS Lemoore	32	ID	NA
	NAS Mayport	67	ID	NA
	NAS Meridian	17	ID	NA
	NAS Miramar	72	ID	NA
	NAS New Orleans	29	ID	NA
	NAS North Island	201	ID	NA
	NAS Pensacola	149	ID	NA
	NAWC Warminster	44	ID	NA
	NCBC Port Hueneme	14	ID	NA
	NMCRC Atlanta	17	ID	NA
	NRL Washington	14	ID	NA
	NS Pearl Harbor	42	42	0
	NSB Kings Bay	58	ID	NA
	NSWC Indian Head	71	21	50
	NTC Orlando	15	ID	NA
	PWC San Diego	15	ID	NA
	Total	1,477	212	242
Air Force				
	Barksdale	77	77	0
	Bolling	14	17	-3
	Dover	41	7	34
	Eareckson	35	35	0
	Eglin	87	88	-1
	Ellsworth	54	ID	NA
	Elmendorf	87	104	-17
	Gabrenski	66	36	30
	Griffiss	153	100	53
	Hickam	60	57	3
	Hill	30	30	0
	Kelly	28	23	5
	Malmstrom	258	258	0
	McChord	81	ID	NA
ID - Insufficient documentation to verify reported data NA - Not applicable				

Appendix C. March 1996 USTs

**Reported and Actual UST at the 83 Audited Installations as of March 1996
(continued)**

<u>Component</u>	<u>Installation</u>	<u>Reported USTs</u>	<u>Actual USTs</u>	<u>Difference</u>
Air Force				
	McGuire	20	36	-16
	Minot	55	232	-177
	Moody	48	48	0
	Mountain Home	23	24	-1
	Nellis	90	62	28
	Seymour Johnson	76	40	36
	Springfield	30	7	23
	Whiteman	72	72	0
	Wright-Patterson	<u>107</u>	<u>113</u>	<u>-6</u>
	Total	1,592	1,466	-9
Marines				
	MCAS Beaufort	30	ID	NA
	MCAS Cherry Point	133	ID	NA
	MCAS El Toro	350	126	224
	MCAS Kaneohe Bay	93	ID	NA
	MCAS Tustin	110	ID	NA
	MCACC 29 Palms	111	ID	NA
	MCB Camp LeJeune	100	ID	NA
	MCB Camp Pendleton	537	99	438
	MCCDC Quantico	95	63	32
	MCLB Barstow	13	ID	NA
	MCMWTC BP	<u>19</u>	<u>ID</u>	<u>NA</u>
	Total	1,591	288	694
DLA				
	DGSC Richmond	45	13	32
	National Stockpile	<u>37</u>	<u>ID</u>	<u>NA</u>
	Total	82	13	32
	Grand Total	6,943	3,069	1,160

ID - Insufficient documentation to verify reported data
NA - Not applicable

Appendix D. Regulation of Secondary Tanks Attached to Oil-Water Separators

Regulation of Secondary Tanks Attached to Oil-Water Separators		
<u>Installation</u>	<u>Regulated USTs</u>	<u>Non-Regulated USTs</u>
<u>Army</u>		
Fort Benning		4
Fort Bragg		7
Fort Campbell		83
Fort Drum		63
Fort Hamilton		4
Fort Huachuca		12
Fort Indiantown Gap		3
Fort Irwin		8
Fort Knox		52
Fort Monmouth		5
Illinois National Guard Bureau	2	
New Jersey National Guard Bureau	25	
Redstone Arsenal		34
U.S. Army Garrison		34
Subtotal	27	309
<u>Navy</u>		
Naval Air Station Cecil Field	9	
Naval Air Station Fallon		8
Naval Air Station Jacksonville	1	
Naval Air Station Joint Reserve New Orleans	4	
Naval Air Station Key West	2	2
Naval Air Station Mayport	11	
Naval Air Station Meridian		3
Naval Submarine Base Kings Bay	6	
Naval Surface Warfare Center Indian Head	10	
San Diego Public Works Center	1	
Subtotal	44	13

Appendix D. Regulation of Secondary Tanks Attached to Oil-Water Separators

Regulation of Secondary Tanks Attached to Oil-Water Separators (continued)		
<u>Installation</u>	<u>Regulated USTs</u>	<u>Non-Regulated USTs</u>
<u>Marine Corps</u>		
Marine Corps Air Station El Toro	1	
Marine Corps Air Station Tustin	3	9
Marine Corps Base Camp LeJeune		1
Marine Corps Base Camp Pendleton	2	
Marine Corps Base Kaneohe Bay	6	
Marine Corps Combat Development Command Quantico	—	<u>2</u>
Subtotal	12	12
<u>Air Force</u>		
Barksdale	2	
Bolling		2
Dover	3	
Eareckson	10	
Eglin		2
Ellsworth	7	
Elmendorf	25	
Hill		5
Long Island (Gabrenski IAP)		1
McChord	28	
McGuire	7	
Minot	7	
Moody	4	19
Seymour Johnson		3
Springfield		3
Whiteman	4	
Wright-Patterson	<u>13</u>	—
Subtotal	110	35
Grand Total	193	369

Appendix E. Heating Oil Tanks Regulated By DoD Installations

<u>DoD Installations</u>	<u>Heating Oil Tanks</u>
Army	
Adelphi Lab	10
Fort Dix	119
Fort Hamilton	35
Fort Monmouth	227
Letterkenny Depot	35
New Jersey Army National Guard Bureau	26
Picatunny Arsenal	16
U. S. Army Garrison, Hawaii	13
U.S. Army Reserve, Alaska*	28
99th Regional Support Command	84
Subtotal	593
Navy	
Naval Air Station Cecil Field	21
Naval Surface Warfare Center Indian Head	43
Subtotal	64
Air Force	
Dover	22
Griffiss	19
Malmstrom	6
Subtotal	47
Marines	
Marine Corps Air Station El Toro	33
Marine Corps Base Camp Pendleton	98
Subtotal	131
DLA	
Defense General Supply Center	37
Subtotal	37
Grand Total	872
*Includes Fort Richardson (2 USTs), Fort Greely (8 USTs) and Fort Wainwright (18 USTs).	

Appendix F. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense (Acquisition and Technology)
Deputy Under Secretary of Defense (Environmental Security)
Assistant Deputy Under Secretary of Defense (Environmental Quality)
Director, Defense Logistics Studies Information Exchange
Under Secretary of Defense (Comptroller)
Deputy Chief Financial Officer
Deputy Comptroller (Program/Budget)
Assistant Secretary of Defense (Public Affairs)

Department of the Army

Assistant Secretary of the Army (Financial Management and Comptroller)
Auditor General, Department of the Army

Department of the Navy

Assistant Secretary of the Navy (Financial Management and Comptroller)
Auditor General, Department of the Navy
Dudley Knox Library, Naval Postgraduate School

Department of the Air Force

Assistant Secretary of the Air Force (Financial Management and Comptroller)
Auditor General, Department of the Air Force

Other Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Logistics Agency
Director, National Security Agency
Inspector General, National Security Agency
Inspector General, Defense Intelligence Agency

Non-Defense Federal Organizations and Individuals

Office of Management and Budget
Environmental Protection Agency
Technical Information Center, National Security and International Affairs Division,
General Accounting Office

Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on National Security, Committee on Appropriations
House Committee on Government Reform and Oversight
House Subcommittee on Government Management, Information, and Technology,
Committee on Government Reform and Oversight
House Subcommittee on National Security, International Affairs, and Criminal
Justice, Committee on Government Reform and Oversight
House Committee on National Security

Part III – Management Comments

Office of the Deputy Under Secretary of Defense (Environmental Security) Comments



ACQUISITION AND
TECHNOLOGY

OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON DC 20301-3000

01 SEP 1998

MEMORANDUM FOR THE OFFICE OF THE INSPECTOR GENERAL,
DEPARTMENT OF DEFENSE, ATTN: DIRECTOR,
CONTRACT MANAGEMENT DIRECTORATE

SUBJECT: Summary Report on DoD Management of Underground Storage Tanks
(UST), Project No. 6CK-5051.05

We have reviewed the summary report and concur with the recommendations. Because of the attention focused on underground storage tanks during the audit, the Military Departments and the Defense Logistics Agency (DLA) have made significant progress in data collection improvements, resource allocation, and management action plans. As a result, we expect to meet the deadline, except in a few locations. This office instructed the Military Departments and DLA to work with state regulatory activities to reconcile UST inventories and report results to us by October 31, 1998. No operational disruptions are anticipated. The comments provided as Attachment 1 include descriptions of actions taken on all subject report recommendations. Attachment 2 is a copy of our memo to the Military Departments and DLA requesting a reconciliation of all regulated UST inventories and permits by September 30, 1998, and a report of the results to ODUSD(ES)EQ/CM by October 31, 1998.

Please refer your questions regarding these comments to Mr. Jim Kennedy,
ODUSD(ES)/EQ-CM, (703)604-1766, kennedjl@acq.osd.mil Fax: (703)607-4237.

Bruce deGrazia
Assistant Deputy Under Secretary of Defense
(Environmental Quality)

Attachments

cc: DASA(ESOH)
DASN(E&S)
SAF/MIQ
DLA-CAAE

Environmental Security



Defending Our Future

DoD Comments on DoDIG Recommendations

Finding A:

Recommend that the Deputy Under Secretary of Defense (Environmental Security):

1. Require the Military Departments and the Defense Logistics Agency to identify the underground storage tanks that will not be compliant by December 22, 1998, and develop detailed plans including resources and efforts to bring tanks into compliance with the Resource Conservation and Recovery Act (RCRA).
2. Inform the Environmental Protection Agency and state regulatory officials that the DoD underground storage tanks will not be in compliance by December 22, 1998; and develop an action plan to permit DoD to continue operations without incurring significant fines or penalties until compliance can be achieved.
3. Ensure that DoD installations implement Defense Planning Guidance for all underground storage tank environmental compliance projects.

DoD POSITION: Concur.

1. The Defense Planning Guidance (DPG), Program Objective Memorandum (PPI) Preparation Instructions, Environmental Quality In Progress Review (IPR) data call, and Measures of Merit clearly require the Military Departments and DLA to plan, program, and budget to meet the RCRA Subtitle I, deadline. The Military Departments and DLA are required to provide reports on the status of their programs during the semi annual IPRs and the annual Program Objective Memorandum (POM), Budget Estimation Submission (BES), and the President's Budget (PB) briefings.
2. After each semiannual In Progress Review (IPR) this office briefs the Environmental Protection Agency (EPA) on DoD efforts to ensure compliance with the RCRA, Subtitle I deadline. The Military Departments and DLA expect to meet the deadline except for three Naval installations in Florida. These naval installations have already negotiated agreements with Florida because EPA has delegated tank program management to the states. Because RCRA has been delegated to the states for implementation and enforcement rather than EPA, DoD's priority has been to coordinate with the states. To ensure the Military Departments and DLA are in agreement with the states, on June 3, 1998, this office instructed them to engage their subordinate commands and installations to reconcile all regulated UST inventories and permits by September 30, 1998, and report the results to ODUSD(ES)EQ/CM by October 31, 1998, Attachment 2.
3. DUSD(ES), ADUSD(ES)EQ, and the OSD-(C) environmental budget analyst have increased emphasis on tank program management during the IPRs, POM, Budget Estimate Submission, President's Budget Submission briefings to ensure compliance with the Defense Planning Guidance. The Military Departments and DLA are now required to provide detailed explanations of their underground storage tank investments and progress towards meeting the deadline.

Attachment 1

Finding B:

Recommend that the Deputy Under Secretary of Defense (Environmental Security):

1. Issue guidance on the applicability of Resource Conservation and Recovery Act (RCRA), Subtitle I, to secondary tanks attached to oil water separators and to heating oil tanks, and ensure that the guidance is consistently implemented across DoD.
2. Request the DoD installations to review environmental compliance budgets, identify and report on funds appropriated to bring unregulated tanks into compliance with the Resource Conservation and Recovery Act, Subtitle I, and reprogram those funds for other use.
3. Clarify future "Department of Defense Environmental Compliance Program Review" data calls specifying what information the managers should report.

DoD POSITION: Concur

1. Partially Concur. It is our position that specific DoD guidance on the applicability of RCRA, Subtitle I, to secondary tanks attached to oil water separators and to heating oil tanks, is unnecessary at this time. The Army, through U.S. Army Audit Agency Report No. AA 98-134, "Management of Underground Storage Tanks, March 16, 1998," was found to have problems specifically defining oil-water separators and hot oil tanks. Through the new AR 200-1 and draft DA PAM 200-1, Army has alleviated this problem by disseminating definite guidance to all Major Commands for Oil Water Separators and Heating Oil Tanks. This Army guidance has been shared with the other Military Departments and DLA to ensure consistent policy. This office will issue standardized guidance regarding Oil Water Separators and Heating Oil Tanks during FY 1999. EPA and State policies concerning Oil Water Separators and Heating Oil Tanks, will continue to be monitored by the Military Departments and DLA, even though they are currently exempt from RCRA, Subtitle I.
2. Concur. Each Military Department and DLA has assured this office that they have all necessary funding available to ensure for all UST tank environmental compliance projects during the POM, BES, and President's Budget reviews. The environmental programs for the Military Departments and DLA have been actively scrutinized for the last two fiscal years. During that time the Military Departments and DLA have had the opportunity to reprogram regulated and non-regulated tank budgets and redirect funds to important Class I projects.
3. Concur. This office added this information to the Environmental Quality Second Half FY1998 IPR Data Call to more clearly define a UST: "RCRA defines a UST as any tank and connected piping that contains a regulated substance and has ten percent or more of its volume underground. Regulated substances include motor fuels, jet fuels, lubricants, petroleum solvents, and used oils. USTs storing heating oil for use on the premises where the tanks are located are exempt from RCRA."

Attachment 1



ACQUISITION AND
TECHNOLOGY

OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

03 JUN 1998

ODUSD(ES)EQ/CM

MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY OF THE ARMY
(ENVIRONMENT, SAFETY AND OCCUPATIONAL
HEALTH)
DEPUTY ASSISTANT SECRETARY OF THE NAVY
(ENVIRONMENT AND SAFETY)
DEPUTY ASSISTANT SECRETARY OF THE AIR FORCE
(ENVIRONMENT, SAFETY AND OCCUPATIONAL
HEALTH)
DIRECTOR, DEFENSE LOGISTICS AGENCY
OFFICE OF DEPUTY GENERAL COUNSEL (ENVIRONMENT
AND INSTALLATIONS)

SUBJECT: DoDIG Audit - State Certification of Underground Storage Tank (UST), Project No.
6CH-5051.04

The attached Draft audit is part of "DoD Management of Underground Storage Tanks," (Project No. 6CK-5051). This portion of overall Underground Storage Tank (UST) audit is in response to an inquiry from the Senate Armed Services Committee based on allegations from a contractor working for the state of Georgia that deficiencies in the DoD program might preclude some states from certifying that USTs were compliant with the Resource Conservation and Recovery Act, Subtitle I, December 22, 1998, deadline. One audit objective was to identify each state's UST compliance policy, and determine the extent to which DoD was meeting those regulatory requirements. Determining whether DoD and state environmental regulatory agencies were reconciling their respective storage tank inventories was another objective.

The Draft audit discovered that many states and resident DoD installations do not reconcile UST inventories on a regular basis, thus leading to discrepancies in the number of USTs listed as certified. This failure to reconcile could lead to a disruption of operations if state and installation UST inventories do not match. One significant factor behind the UST inventory variances is untimely documentation. The Draft audit report points out that these deficiencies are not confined to one DoD Component, state, or installation.

It is important that all DoD Components review this Draft audit and engage their subordinate commands and installations to work with state regulatory activities to reconcile inventories so that DoD will be in compliance with the RCRA Subtitle I, UST

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**Office of the Deputy Under Secretary of Defense (Environmental Security)
Comments**

December 1998, deadline. Accordingly, I request that each addressee task your subordinate activities to reconcile all regulated UST inventories and permits by September 30, 1998, and report the results to ODUSD(ES)EQ/CM by October 31, 1998. Please address any questions on this Draft audit to Mr. Eric Spillman, ODUSD(ES)EQ/CM, (703)604-1732, Fax: (703)607-4237.



Bruce deGrazia
Assistant Deputy Under Secretary of Defense
(Environmental Quality)

Attachment

cc: DLA-CAAE
OGC(E&I)
DoDIG, Attn: Ms. Beima
Director, ODUSD(ES)PI

Department of the Army Comments



DEPARTMENT OF THE ARMY
U.S. ARMY AUDIT AGENCY
ORGANIZATIONAL EFFECTIVENESS
3101 PARK CENTER DRIVE
ALEXANDRIA, VIRGINIA 22302-1596

SAAG-PMO-L (36-2b)

4 September 1998

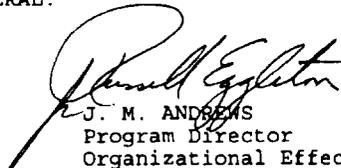
MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE
ATTN: CONTRACT MANAGEMENT DIRECTORATE

SUBJECT: Summary Report on DOD Management of Underground Storage
Tanks (Project No. 6CK-5051.05)

1. Attached is the Army response to your memorandum dated 29 July 1998, subject as above.
2. For further information contact Ms. Debra Rinderknecht at DSN 224-9439, commercial (703) 614-9439, or e-mail at aaaliaison@aaa.army.mil.

FOR THE DEPUTY AUDITOR GENERAL:

Encl


J. M. ANDREWS
Program Director
Organizational Effectiveness

Department of the Army Comments



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
800 ARMY PENTAGON
WASHINGTON DC 20310-0800



SEP 3 1998

DAIM-ED-C

MEMORANDUM FOR U.S. ARMY AUDIT AGENCY, ATTENTION: J.M. ANDREWS,
PROGRAM DIRECTOR, ORGANIZATIONAL EFFECTIVENESS,
3101 PARK CENTER DRIVE, ALEXANDRIA, VA 22302-1596

SUBJECT: Summary Report on DoD Management of Underground
Storage Tanks (Project No. 6CK-5051.05)

1. Reference memorandum, Inspector General, DoD, Director,
Contract Management Directorate, 29 July 1998, SAB.
2. Reference memorandum requested Army management comments on
the 29 July 1998 draft of the subject summary report.
3. The Army nonconcur with the major conclusions and
recommendations of the draft report since they are no longer
timely and publication at this point could possibly create some
misperceptions. The field audits upon which the report's
conclusions and recommendations are based were completed in April
1997. Since that time, the Army has taken a major and
unprecedented headquarters management initiative to assure that
all regulated underground storage tanks are in compliance by the
EPA regulatory deadline of 22 December 1998. This office is
available to meet with your staff to discuss the results of Army
initiatives since the time of the April 1997 field audits.
4. Thank you for forwarding this response to the Office of the
Inspector General, DoD.
5. The point of contact for this action is LTC Steven Jones,
Office of the Director, Environmental Programs, (703) 693-0545.

FOR THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT:


JAMES E. DRIES
Colonel, GS
Director, Environmental Programs

Audit Team Members

The Contract Management Directorate, Office of the Assistant Inspector General for Auditing, DoD, prepared this report.

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