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ACQUISITION
TECHNOLOGY
AND LOGISTICS

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY
(INSTALLATIONS AND ENVIRONMENT)
ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
ASSISTANT SECRETARY OF THE AIR FORCE
(INSTALLATIONS, ENVIRONMENT AND LOGISTICS)
DIRECTOR, DEFENSE LOGISTICS AGENCY (D)
DIRECTOR, DEFENSE THREAT REDUCTION AGENCY

SUBJECT: Guidance for Recognizing, Measuring, and Reporting Environmental Liabilities Not Eligible for Defense Environmental Restoration Program Funding

Attached guidance for recognizing, measuring, and reporting of environmental liabilities not eligible for the Defense Environmental Restoration Program ("non-DERP") is forwarded for your implementation. This and the complementary policy in DoD Financial Management Regulation (FMR) Volume 4 is intended to provide direction to accomplish an agency-wide unqualified audit opinion for the environmental liability line (Note 14) in the DoD-wide financial statement.

The Chief Financial Officer Act of 1990, expanded by the Government Management Reform Act of 1994 and the Federal Financial Management Improvement Act of 1996 require DoD to have audited financial statements with adequate documentation and a management system to accurately and consistently report full financial costs. This guidance also responds to recommendations in recent Government Accountability Office (GAO), DoD Inspector General, and Service audit agency reports concerning deficiencies with the preparation and documentation of non-DERP environmental liability reporting and disclosures.

DoD's environmental liability consists of both DERP and other-than-DERP liability. The FMR and the DERP Management Guidance have been updated to reflect statutory requirements and to clarify the reporting of DERP environmental liabilities. The purpose of the attached guidance is to provide a comprehensive high-level guide that lays out a controlled process to systematically capture, summarize, maintain, and report non-DERP liability. This guidance is aimed at the DoD functional communities to assist them in understanding their responsibilities for day-to-day activities that impact accounting and financial reporting.

We anticipate that the Department's business modernization and transformation efforts will provide the blue print for the necessary systems to collect, document, and report environmental liability, both DERP and non-DERP. At present, this reporting depends on program management and data systems. To meet the Department's goal of an unqualified audit opinion the following major steps must be accomplished in accordance with the key milestones in the Department's Financial Improvement and Audit Readiness Plan using those and other management systems:

- Complete identification of the universe on non-DERP liability tied to real property/facility and equipment records.
- Complete implementation of a management control system for collecting, documenting, and reporting non-DERP liability at the Component level.
- Complete a credible estimate of the liability associated with the non-DERP universe.

This guidance was prepared with input from subject matter experts within each of the Components. I wish to extend my sincere thanks to each of the experts who generously gave of their time to assist us with the development of this guidance for DERP ineligible environmental cleanup, disposal and closure liabilities. My point of contact for this guidance is Mr. Shah A. Choudhury at (703) 571-9067 or Shah.Choudhury@osd.mil.

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Attachment
As stated

cc:
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ASA(FM&C)
ASN(FM&C)
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Guidance For Recognizing, Measuring and Reporting Environmental Liabilities Not Eligible for Defense Environmental Restoration Program Funding

Office of the Deputy Under Secretary of Defense (Installations and Environment), ODUSD (I&E)

NOVEMBER 2005

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I. Introduction

The Chief Financial Officer Act of 1990, expanded by the Government Management Reform Act of 1994 and the Federal Financial Management Improvement Act of 1996, requires federal agencies to prepare annual financial reports in accordance with applicable federal financial accounting standards. As a part of this legislation, properly recognizing and reporting financial liabilities is of great interest to the U.S. Congress and general public.

Environmental liabilities can be thought of occurring in three broad areas:

Real Property
- Past Activities
- Ongoing Activities

Facilities and Equipment
- Ongoing Activities
- Closure & Disposal Requirements

Weapon Systems
- Nuclear Environmental Disposal
- Chemical Agents/Munitions Destruction
- Other Weapon Systems Disposal

For purposes of this Guidance, a non-DERP environmental liability is one that is not a Defense Environmental Restoration Program (DERP) qualified activity. The DERP is defined in 10 USC §2701(b). The vast majority of DERP funding is for the identification, investigation, and cleanup of contamination from hazardous substances, pollutants, contaminants and correction of other environmental damage (such as detection and disposal of unexploded ordnance) from past activities that create the risk of an imminent and substantial endangerment to the public health or welfare or to the environment. DERP activities are funded using the environmental restoration funds appropriated to the five Defense Environmental Restoration Accounts (DERA) or Base Realignment and Closure (BRAC) Account. As this document only addresses issues related to the DERP ineligible activities defined herein, please refer to the DERP Management Guidance issued by the Deputy Under Secretary of Defense (Installations and Environment) for guidance on DERP environmental liability estimation and reporting.

1.0 Purpose

This document provides guidance to the Department of Defense (DoD) Components on the proper recognition, measurement, reporting, and disclosure of environmental liabilities not eligible for DERP funding. These liabilities will typically originate from on-going activities or disposal of Property, Plant, and Equipment (PP&E). This document will refer to those liabilities as non-DERP liabilities throughout. The guidance is intended to assist Component personnel in determining when day-to-day activities will require future expenditure of resources to cover associated environmental cleanup, corrective, and disposal obligations that ultimately affect the accounting and financial reporting of non-DERP liabilities.

2.0 Applicability and Scope

This Guidance focuses on those environmental liabilities specifically related to non-DERP past and current installation activities and operations, and closure and disposal of facilities, equipment, and weapon systems. The principles articulated in this document are applicable to all program areas shown in the boxes above. However, estimating and reporting weapon systems environmental liabilities is to be done using the specific process and guidance developed by the responsible program office in conjunction with the cognizant financial management office.

Accounting standards define "environmental cleanup costs" broadly to encompass costs associated with environmental activity related to closure and of disposal of PP&E. DoD Financial

Management Regulation 7000.14-R (FMR) Volume 4, Chapter 6: Property, Plant, and Equipment describes PP&E in detail. For financial statement reporting purposes, the following accounting concept of "environmental cleanup" is used to develop estimates for non-DERP environmental liability, which would include:

> Corrective actions associated with the future disposal of facilities, equipment, or munitions, or closure of facilities include researching and determining the existence of hazardous waste, and removing, containing, and/or disposing of hazardous waste from property, or material and/or property that consist of hazardous waste at the time of shutdown or disposal of the asset. Cleanup (as defined in FMR Volume 4, Chapter 13), may include, but is not limited to, decontamination, decommissioning, site restoration, site monitoring, closure, and post closure costs related to DoD operations that result in hazardous waste. Environmental cleanup applies only to DoD operations known to result in hazardous waste which the DoD is required to address by federal, state, and/or local statutes and/or regulations that have been approved as of the financial statement reporting date.

This means that environmental liability can be a "cleanup," corrective action," "closure," or "disposal" liability.

Non-DERP environmental liability is to be estimated on a discrete site basis. A "non-DERP site," as used in this guidance, is the PP&E activity, asset, or facility, either existing or previously used by a Component, for which there is an associated environmental liability.

Accounting policy applicable to non-DERP environmental liability is contained in FMR Volume 4, Chapter 13. This guidance document should be used in conjunction with the guidance in the FMR and any other programmatic guidance. The process and documentation established herein is intended as a high-level, yet comprehensive guide. As such, it is inappropriate to use this Guidance as a detailed procedural manual.

2.1 Materiality

Materiality is hard to quantify and requires application of professional judgment, it should be considered in terms of the smallest level of misstatement that could be material to the liabilities being reported, regardless of dollar amount.

Due to the complex nature of some sites, if it is determined to be too difficult to separate environmental and non-environmental disposal costs, and the environmental cost is more than 50% of the disposal costs, all disposal costs may be treated as an environmental liability. Similarly, if the environmental cost is a minor portion of the overall disposal cost, management can make the determination that this cost is not material. Materiality must be determined for each individual situation, and can only be made by those who have all the facts. All communities must work together to determine the materiality of an environmental liability to be recognized on the financial statement. Primary responsibility in the judgment of materiality, however, lies with functional managers who must ultimately be able to justify the inclusion or omission of a potential liability.

3.0 Roles and Responsibilities

The following defines the role of the Functional, Financial, and Audit communities. The Department depends on the functional and financial communities to provide accurate, reliable, and complete information regarding environmental requirements and liabilities for inclusion in the financial statements, that then are subject to audit by audit agencies. This approach will help individuals and organizations within DoD understand their role in the process and how their work impacts other portions of environmental liability reporting.

3.1 Functional Community

DoD's "functional community," as used in this guidance, are the Component's experts regarding environmental requirements in their specific program. The functional community is primarily the installation environmental community, but also includes other program managers with environmental closure and disposal liability in their respective program area. This functional community is responsible for the detection, classification, tracking, estimating, and correction of environmental issues. Their judgments form the basis upon which all environmental issues, including environmental liabilities, are represented. This community plays a crucial role in the development of all environmental liability estimates presented in the DoD financial statements. In the course of ensuring that their estimates are adequately supported, the processes used to develop the estimates naturally address the following questions:

- Who are the responsible parties for developing estimates?
- Who is permitted to view/change estimates?
- Who approves estimates?
- Where are estimates submitted after approval?
- Where is supporting documentation for estimates retained?
- If estimates and their supporting documentation are retained in a central repository, who controls and maintains the database or alternate repository?
- If estimates and their supporting documentation are not centrally maintained, how is information collected, validated, changed, and reported?

3.2 Financial Community

DoD's "financial community," in coordination with the "functional community" is responsible for establishing effective processes and procedures to prepare environmental liability estimates for inclusion in financial statements. These processes and procedures should accomplish the following:

- Identify situations for which estimates are needed
- Identify relevant factors that may affect the estimates
- Develop assumptions representing the most likely circumstances and events with respect to the relevant factors
- Accumulate relevant, sufficient, and reliable data on which to base estimates
- Determine the approximate amount, based on the assumptions and relevant factors
- Determine whether estimates are presented in conformity with applicable accounting principles and if disclosures are adequate

3.3 Audit Community

The "audit community" reviews the entire life cycle of processes and procedures that the functional and financial communities use to identify, capture, track, classify, estimate, and report non-DERP environmental liabilities. In addition, the auditor will review the management framework and financial statements related to environmental liabilities. Some of the key areas auditors will examine are:

- **Recognition**—which is the determination of when the liability should be included in financial statements.
- **Measurement**—which is the determination of the dollar value estimate of the liability and the methods of assigning dollar measurements (physical capacity or passage of time); including a review of the supporting data and assumptions used to construct the estimate.
- **Presentation and Disclosure**—which is the provision of explanatory information concerning the liabilities. For specific information regarding DoD financial statement presentation and

disclosure requirements associated with environmental liabilities refer to FMR Volume 6B Chapters 4 and 10.

See Appendix F for additional information regarding establishment of a management framework for environmental liability.

II. Questions to Help Identify Non-DERP Liabilities

Answering the following list of questions will help with identification and reporting of non-DERP environmental liabilities:

- What is an environmental liability?
- Where are environmental liabilities reported?
- What are the major categories of non-DERP environmental liabilities?
- How do I determine if the environmental requirement is a candidate for inclusion as a non-DERP environmental liability on Note 14 of the DoD financial statement?
- How do I know if I have captured all known environmental liabilities?
- Why prepare an environmental liability estimate?
- Once I determine the requirements I manage may have a non-DERP environmental liability, how do I prepare an estimate?
- What is current liability and how is it calculated?
- After I create an estimate using current dollars, am I done?
- Who should report a non-DERP environmental liability upon transfer of a site that has an associated liability?

4.0 What is an environmental liability?

Based on accounting standards, the revised FMR Volume 4, Chapter 13 defines environmental liability as:

> "An environmental liability is a probable and measurable future outflow or expenditure of resources that exist as of the financial reporting date for environmental cleanup costs resulting from past transactions or events."

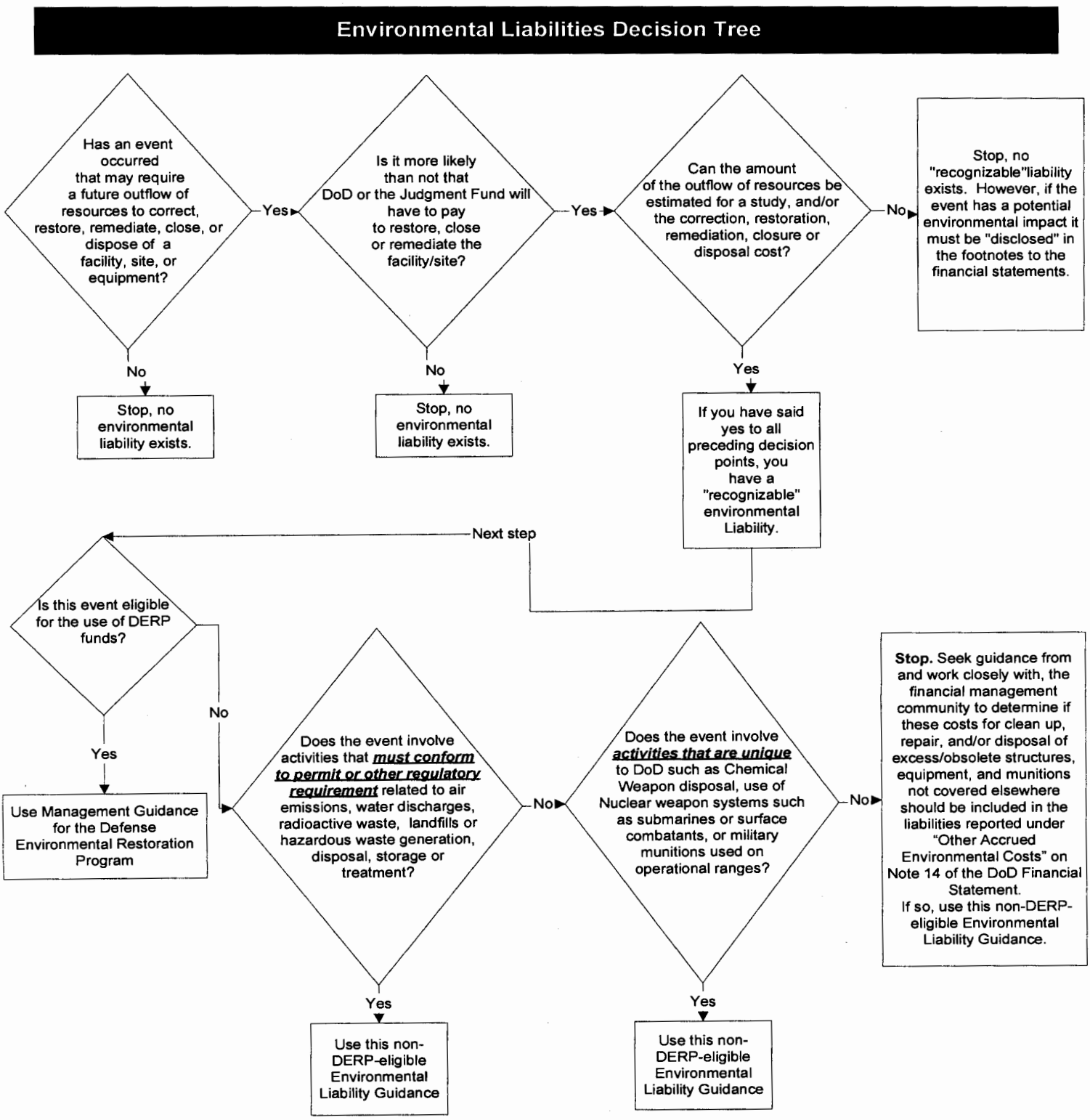
Simply stated, a non-DERP environmental liability is an obligation to make a future expenditure resulting from past or present events that have the potential to adversely affect the environment. This includes costs associated with environmental (1) cleanup/corrective actions, (2) closure requirements at on-going operations, and (3) disposal, including weapon system disposal, as described in 2.0 above. Environmental liabilities at overseas DoD locations will be recognized as stated in FMR Volume 4, Chapter 13. Figure 1 provides a decision tree to help determine whether to categorize an environmental liability as non-DERP.

Liability recognition is not a budgeting exercise nor should be based on funding availability. Environmental liabilities must be estimated and reported regardless of whether they appear in budgets or have future funding identified.

5.0 Where are environmental liabilities reported?

Note 14 in DoD's financial statements, entitled "Environmental and Disposal Liabilities" and the accompanying narrative ("Other Information Related to Environmental Liabilities," also known as the footnote) is the applicable note to report environmental liabilities. Note 14 has four categories: Accrued Environmental Restoration (DERP funded) Costs, Other Accrued Environmental Costs (non-DERP)

Figure 1. Environmental Liabilities Decision Tree



Costs, Base Closure and Realignment (BRAC), and Environmental Disposal for Weapons Systems Programs.

Non-DERP liabilities are reported primarily in two broad categories in Note 14 ("Other Accrued Environmental Costs" and "Environmental Disposal for Weapons Systems Programs"), with the remaining portion under the BRAC category The total liability for each activity line on Note 14 is identified and reported as two subsets (current and non-current) of the total liability.

See Section 11 and Appendix E for additional information regarding the reporting of current and non-current environmental liabilities.

6.0 What are the major categories of non-DERP environmental liabilities?

The categories and lines discussed below are keyed to the present format of Note 14 of the DoD financial statements, and may change if the form and content of Note 14 is revised. The following types of environmental liabilities are reported under the "Other Accrued Environmental Costs" category of Note 14:

- **Active Installations – Environmental Corrective Action.** An environmental liability may be associated with non-DERP corrective actions such as a release or spill at an activity where a permit is required to manage waste or equipment. These actions typically would be funded using the funding source that supports the permitted activity that is the source of the contamination.

See Appendix A for additional information regarding liabilities associated with corrective actions for RCRA permitted or similar type facilities.

- **Active Installations – Environmental Closure Requirements.** An environmental liability may be associated with future closure of facilities on active installations that have environmental requirements related to their future decontamination and decommissioning. A few examples of facilities that may have costs associated with eventual closing and post-closure monitoring are solid waste landfills; hazardous waste treatment, storage, and disposal facilities; and open-burn or open-detonation sites. These ongoing activities operate in a compliant manner and should create no environmental liabilities during their useful lives but may incur some closure, monitoring, or disposal costs when no longer in operation. Such costs will need to be recognized as an environmental liability.

See Appendix B for additional information regarding liabilities associated with environmental closure and disposal requirements.

- **Active Installations – Environmental Response at Active Ranges.** Environmental actions may have to be taken in response to a risk of an imminent and substantial endangerment to public health and welfare or to the environment to contain or respond to an environmental contaminant on the surface, in the soil, or in the groundwater of operational ranges. Contamination may also include munitions constituents at operational ranges, however the liability does not exist until an environmental action is required for contamination extending beyond the range boundaries or a formal decision to close the range is made.

See Appendix C for additional information regarding liabilities associated with environmental actions at operational ranges.

- **Other.** Non-DERP environmental liabilities may exist at active installations as a result of the clean up, repair, and/or disposal of excess/obsolete structures, equipment, and munitions that are not covered elsewhere are reported here. The functional community needs to have guidance

from, and work closely with, their cognizant financial community to determine what needs to be included.

See Appendix B for additional information regarding liabilities associated with environmental closure and disposal.

The following types of non-DERP environmental liabilities are reported under the "Base Realignment and Closure (BRAC)" category of Note 14. These liabilities would be funded from the BRAC account. Estimates that have been prepared by non-BRAC program offices will be forwarded to the appropriate Component BRAC program once the affected sites have been transferred to the BRAC program.

- **BRAC Installations – Environmental Corrective Action.** This is the BRAC equivalent of the "Active Installations – Environmental Corrective Action" discussed above for BRAC-funded corrective actions at BRAC installations.

- **Other.** Activities similar to the active installations "Other" above will be reported on this line.

The following types of non-DERP environmental liabilities are reported under the "Environmental Disposal for Weapons Systems Programs" category of Note 14. These activities and environmental liability estimates are currently managed and prepared by the responsible program office using specific programmatic guidance:

- **Nuclear Powered Aircraft Carriers, Nuclear Powered Submarines, and Other Nuclear Powered Ships.** The environmental liabilities related to nuclear assets are those that result from hazardous waste removal and disposal costs (environmental and non-environmental) associated with nuclear-powered weapon systems such as nuclear aircraft carriers, submarines and surface ships. Environmental disposal liabilities associated with a nuclear asset acquired after 1 October 1997 shall be systematically recognized over the useful life of the asset. Due to the complex nature of these assets, if it is determined to be too difficult to separate environmental and non-environmental disposal costs, and if the environmental costs are over 50% of the disposal cost, all disposal costs shall treated as an environmental liability. The Department of the Navy prepares environmental disposal liabilities using specific guidance developed for the Navy nuclear environmental disposal program and for disposal of ships, and reports these liabilities in Note 14 of the DoD financial statement.

See existing programmatic guidance maintained by the NAVY NUCLEAR ENVIRONMENTAL DISPOSAL PROGRAM for information regarding this type of liability.

- **Chemical Weapons Disposal.** Environmental disposal liabilities must be prepared for those chemical agents and munitions covered under legislation enacted by Congress in 50 USC 1521, which requires the Secretary of Defense to carry out the destruction of the United States' stockpile and non-stockpile lethal chemical agents and munitions. The Department of the Army, as the executive agent for the destruction of chemical weapons, prepares environmental liabilities using specific guidance developed for this program and reports these liabilities in Note 14 of the DoD financial statements.

See existing programmatic guidance maintained by the ARMY ELIMINATION of CHEMICAL WEAPONS PROGRAM (ECW) for information regarding this type of liability.

- **Other National Defense Weapons Systems, and Other.** Non-DERP environmental liabilities may exist for the disposal of other weapon systems. The estimating and reporting of

environmental liabilities for these lines to be done using the specific process and guidance developed by the responsible program office in conjunction with the cognizant financial management office.

7.0 How do I determine if the environmental requirement is a candidate for inclusion on DoD financial statements as a non-DERP environmental liability on Note 14 of the DoD financial statement?

Accounting literature, such as the Statement of Federal Financial Accounting Standards (SFFAS) No 5: Accounting for Liabilities of the Federal Government, establish three accounting "tests" to determine existence of liability. To be an environmental liability, it must be a "past event" and must have already occurred; the associated non-DERP environmental cost to be expended in the future must be "probable;" and these non-DERP environmental costs must be measurable or "reasonably estimable." Each is discussed below.

7.1 Past Event

The event being considered must have already occurred. This accounting principle requires liability recognition since the future expenditure of resources (i.e., liability) associated with the non-DERP site is deemed to have occurred when the property, facility, or equipment is placed into service or contamination occurs, even though the environmental costs associated with the facility closure or disposal will not occur for some time. To determine if some event occurred that might generate an environmental disposal or closure liability, qualified personnel should review the conditions and requirements of any operating licenses, permits, plans, or other environmental records to determine whether a potential environmental liability exists. Examples of these include records such as those listed above related to:

- Air emissions (e.g., from boilers or furnaces)
- Water discharges to Publicly Owned Treatment Works (POTW)
- Water discharges pursuant to National Pollution Discharge Elimination Systems (NPDES) permit
- Underground Storage Tank (USTs) and Aboveground Storage Tank (ASTs) operations
- Treatment Storage and Disposal Facilities (TSDF)
- Landfills

Another source for determining if an event generating an environmental disposal or closure liability has occurred is program documentation relating to:

- Chemical munitions elimination and/or destruction
- Nuclear environmental disposal program assets, such as the Navy's nuclear powered aircraft carriers, submarines and surface ships
- Other applicable National Defense weapon systems

7.2 Probable Cost

The associated non-DERP environmental costs must be "probable." That is, they must be more likely than not to be incurred. If it is determined that a potential non-DERP environmental liability is associated with a disposal or closure of a non-DERP site – e.g., activity, facility, or equipment – the "probability" of the liability should be determined using the following criteria, (a positive response to one or more criterion would indicate "probability"):

- Are cleanup, disposal, closure, and/or post-closure monitoring costs currently required either now or upon closure or disposal?
- Are these costs related to DoD's operation or use of the facility or equipment?

- Does the DoD have a financial responsibility with regard to the cleanup, closure and/or post-closure monitoring costs associated with the site?
  - Is a claim or assessment probable if the facility is not disposed/closed in a specified or established manner?
  - Based on available information, is it probable that the outcome of such claim or assessment will be unfavorable to the DoD?
- Has the transaction occurred, e.g. has the facility or equipment been placed into service and will it require some type of cleanup, closure, and/or post-closure monitoring costs?
- Do the technologies exist to clean up, close, and/or monitor the affected site?

7.3 Reasonably Estimable

These non-DERP environmental costs must be "reasonably estimable" in current-year dollars. This means that supportable estimates can be prepared based on parametric models or cost comparisons that have adequate documentation of the assumptions made or an engineering estimate. If a liability for a transaction is determined to meet the definition of "probable" using the criteria above, the following must be considered in developing the "reasonably estimable" non-DERP environmental liability for other than weapon systems:

- Has an "interim corrective measure" been performed? If so, is there sufficient information available to construct a reasonable estimate?
- If a study has been completed, this is the most common point at which there is sufficient site specific information to prepare an estimate of a potential environmental liability.
- If the results of the study indicate that no contamination exists, no further action is required.
- If an investigation has not been completed, the next test is to determine whether a site appears to be sufficiently similar to any other site and/or condition where experience has been gained through either a completed study or an actual closure or disposal.
- If a similar site or condition exists, the estimate for recognizing a site liability may be based on the similar experience.
- If there is no investigation and/or comparable site data available, costs for a site are not considered reasonably estimable. However, the entity shall recognize the anticipated costs of conducting a future study as the liability until such time as a site estimate is completed.

For weapon system disposal, including chemical agent and munitions destruction, the life cycle cost or acquisition program baseline will be the basis for developing the "reasonably estimable" environmental liability.

Note: The minimum dollar value of a non-DERP environmental liability estimate for any facility, activity or unit of property where a liability has been deemed "probable" will be the estimated cost of conducting a study to determine the environmental disposal and/or closure costs.

See Appendix D for additional information on accounting for non-DERP environmental liabilities.

8.0 How do I know if I have captured all known environmental liabilities?

All DoD Components with non-DERP environmental liabilities must develop and document a management control framework to be used in developing environmental liability estimates. This process must ensure that each reporting unit has accounted for all its environmental liabilities. This entire universe of environmental liabilities will consist of DERP or non-DERP environmental liabilities. The overall management framework should include processes, procedures, and data systems that identify the following:

- Assignment of a specific person or entity responsible for initial preparation of the required estimates of the dollar value of potential liabilities
- Methods used to determine if all required estimates for its environmental activities are prepared
- Means of ensuring that all known requirements are assigned to a person qualified to prepare supportable estimates
- Assignment of responsibility to specific individuals for changing, updating, reviewing, documenting, and approving estimates
- Methods for creating, changing, updating, reviewing, documenting, approving, and transmitting estimates to the required location(s) – including policies and procedures for the retention and disposition of estimates

See Appendix F for additional information on management framework for non-DERP environmental liabilities.

9.0 Why prepare an environmental liability estimate?

Environmental liability estimates are an approximation of a financial cost DoD will incur. They are included in financial statements to provide a measurement of an amount or the valuation of an environmental activity when data is uncertain, pending the outcome of future events.

According to the FMR, DoD components shall prepare accounting estimates for environmental liabilities:

- Without regard for the availability of funds
- Based on currently available technologies
- They shall be revised annually, usually with the perspective of 30 September, based on changes in technology, regulations, inflation, etc.

See Appendix G for additional information on preparing non-DERP environmental liabilities.

10.0 Once I determine the requirements I manage may have a non-DERP environmental liability, how do I prepare an estimate?

When it is determined that a liability exists and the liability is probable and estimable, a "current" cost estimate of that requirement shall be created for non-DERP liabilities in accordance with the following (however, the Chemical Agents and Munitions Destruction, Navy Nuclear Environmental Disposal, and Other National Defense Weapons System programs will refer to their specific program guidelines in preparing estimates):

- The estimate must be prepared using current year costs as if the associated activities were to be performed immediately, even if none of the activities actually will take place in the current year or any future year
- The estimate must be based on existing laws, technology, and management policies, even if the actual outlays against the non-DERP liability will not occur until sometime in the future
- The assumptions used to construct each estimate must be documented and retained as specified in FMR Volume 4, Chapter 13. These estimates may change annually, due to factors such as inflation, changes in any applicable requirements, and technology. As the estimate changes over time, the new assumptions and/or information must be documented and saved to establish an audit trail explaining why estimates for the requirement changed over time
- Direct costs should be considered when estimating each requirement, and the estimate should indicate if the costs are a one-time cost or an annual expenditure. The cost estimates should consider, but are not limited to, the following:
    - The costs to complete a facility study

- Fees to engineering and consulting firms for site study and cleanup plans
- Costs of services for contractors, engineers, and consultants performing disposal or cleanup actions
- DoD overhead costs, including compensation and benefits of government personnel expected to devote significant time directly to disposal or cleanup efforts (such costs may be estimated by the component on a standard cost basis and applied across the service as a total cost allocation of management costs.)
- Costs of machinery and equipment dedicated to environmental actions that have no alternative use. These costs should be included in the cost estimate unless one of the following criteria is met:
  - The cost extends the life, increases capacity, or improves safety when compared with the condition of the facility when the cost is incurred
  - The costs mitigate or prevent contamination that has yet to occur and that otherwise may result from future operations
- Costs of operation and maintenance of disposal/cleanup, including costs of post-action monitoring required by law
- Costs of re-landscaping
- Required fees for permits and approvals
- Directly attributable environmental costs
- Costs of planning and design efforts (including contract advertisements and document reproductions)
- For Landfills:
  - The cost of equipment expected to be installed and facilities expected to be constructed (based on the landfill closure plan) near or after the date the landfill stops accepting additional waste
  - The costs of the initial cover (capping) to be applied when the landfill stops accepting additional waste. Note the "past event" for subsequent caps does not occur until the previous cap has been put in place, e.g., the environmental liability for the third replacement cap (if needed) only occurs when the second cap is put in place.

With the exception of landfills, most non-DERP post-closure monitoring costs for ongoing operations should be recognized under the assumption of a "clean close." This assumes that the ongoing activities are operating in accordance with all applicable laws, regulations, and component policies. These on-going compliance activities are recognized as operating costs in the current year and not as liabilities. Therefore, upon weapon system disposal and RCRA permitted facility closure there should be no environmental cleanup required other than the legally required decontamination and decommissioning (i.e., closure and disposal) of the operating facilities. In addition, a "clean close" exempts these sites from conducting post-closure groundwater monitoring (40 CFR 264.90(C)(1)).

In cases such as landfills, additional non-DERP costs are incurred in the form of capping, monitoring, and sampling costs. In each case, if the facility has been operated in accordance with the permit requirements, the non-DERP costs should be minimal and shall be estimated as defined in FMR Volume 4, Chapter 13. Post closure monitoring costs will be based on the 30 years contained in RCRA policy establishing a standard timeframe for monitoring and sampling, during the post-closure care period.

11.0 What is current liability and how is it calculated?

Current environmental liabilities are the amounts owed on a liability that will be paid during the 12 months beyond the financial statement date. The current liability is the value of the unliquidated obligations (ULOs) estimated to be outlayed (e.g., payments on invoices from contracts previously

awarded), as well outlays estimated from any appropriations and obligations in the next 12 months. Non-current environmental liabilities represent the remaining cost estimates to complete all environmental activities including ULOs that will be paid out after 12 months beyond the financial statement date. With implementation of modernized systems, current liability will be estimated on a transactional basis; in the interim Components will have to use an alternate method to estimate their current liability.

See Appendix E for additional information on estimating current and non-current non-DERP environmental liabilities.

12.0 After I create an estimate using current dollars, am I done?

Since all environmental liability estimates are subject to audit, the auditors will review and test the processes used to develop overall environmental liability estimates. They will also look at individual estimates on a sample basis to determine the reasonableness of numbers used to prepare the financial statements. The following guidelines should be used to develop an audit trail that conveys reasonableness of estimates:

- Maintaining adequate documentation to allow an auditor to replicate (using the same procedure) an estimate from the source documents used (invoices, cost estimate assumptions, parametric factors) to the resulting or from the estimate back to the source.
  - Sufficient documentation must be maintained to identify data sources, estimating methodology, rationale used, and the management review processes used to review, approve, change, aggregate, and archive the data. In addition, the auditors will examine the qualifications of the estimator, and others involved in the preparation or adjustment of the actual estimates. The Component functional community, with advice from the financial community, needs to establish what is "sufficient" and "adequate" for specific situations.
- Substantiating individual cost estimates by retaining a copy of all reported estimates and developing a summary document containing the following information:

  Background Information. Estimator name, date of estimate, and any other pertinent information such as a brief description and rationale, or addressing any relevant conditions

  Methodology. Steps identifying how to complete the project

  Assumptions. Items that were unknown at the time of estimate but were needed to complete the estimate

  Physical Aspects/Units. Tangible assets of a project (i.e. acres of land, number of monitoring wells, etc.)

  Quantities. Amounts needed of a particular physical aspect or unit

  Cost/Unit. Cost to purchase a particular physical aspect or unit

  Cost Elements. Components of a particular cost/estimate

  Supervisory Review. Estimate approval documentation signed and dated by a technically qualified supervisor

  Project Changes. Any changes to the original project, or cost elements that affect the cost estimate must be identified, including changes in laws, regulations, technology, current prices and policy

  Cost Adjustments. Costs that change the original cost estimate must be documented and retained for a minimum for the life of the project or as stated in the FMR or record disposition policies, whichever is longer. The estimate record should track additions and reductions associated environmental liabilities over time

Note: The process outlined above is a general process applicable primarily to "installation-type" non-DERP environmental liabilities. The general process also applies to weapon systems (e.g., Chemical Agents and Munitions Destruction and Navy Nuclear Environmental Disposal programs) environmental liabilities, but with specific guidance in developing applicable estimates established by the responsible program office. It is also important to remember that management develops these cost estimates and these cost estimates are only to be used for management purposes.

See Appendix H for additional information on preparing an audit trail for non-DERP environmental liabilities.

13.0 Who should report a non-DERP environmental liability upon transfer of a site that has an associated liability?

The organizational entity responsible for the event that led to the environmental liability should be the one that estimates, tracks, revises, monitors, recognizes, and corrects the environmental liability. Host-Tenant agreements should clearly stipulate the responsibilities for reporting, estimating, and recognizing environmental liabilities in accordance with the FMR. If these responsibilities are not covered in the Host-Tenant agreement, the entity that has the preponderant use of the site/facility as discussed in FMR Volume 4, Chapter 6, or holds the environmental permits will be responsible for reporting and correcting the non-DERP environmental liabilities associated with the affected property, facility, or equipment.

For those sites that are transferred to the BRAC program, all non-DERP environmental liability estimates will be transferred to and updated in the BRAC program. This will help ensure that these liabilities are not double counted on DoD's financial statements.

Appendix A–RCRA or Similar Corrective Actions

Information in this appendix is applicable to all non-DERP environmental liability estimates for installations and the applicable activities, facilities, and equipment thereof.

Corrective actions, beyond the initial response to spills, leaks, or other releases into the environment that result from hazardous waste management, at facilities permitted under RCRA or similar regulatory requirements, are environmental actions that constitute an environmental cleanup liability. The initial response, if completed within the financial reporting period, would be an "operational cost," costs extending beyond the reporting period would an environmental liability. RCRA contains provisions governing corrective actions involved with the cleanup of contaminated air, groundwater, and soil. For example, a leaking Underground Storage Tank or Aboveground Storage Tank system may contaminate surface soils, surface waters, and/or groundwater. The environmental liabilities associated with RCRA or similar corrective actions not eligible for DERP are estimated based on a cost to complete methodology (recognize the entire liability as soon as the estimate is complete) using a model such as the Remedial Action Cost Engineering and Requirements System (RACER), an engineering estimate, or experience with similar activities. This amount will need to be adjusted for payments made, and changes to estimates due to changes in regulations, polices, and availability of technologies.

The minimum estimate for corrective actions at these sites will be an estimate of the costs associated with performing the required investigation to eventually determine the presence and extent of contamination and/or the estimated costs of the cleanup.

Appendix B–Closure and Disposal

Information in this appendix is applicable to all non-DERP environmental liability estimates for installations and the applicable activities, facilities, and equipment thereof.

Closure and disposal liabilities. Closure and disposal liabilities are associated with ongoing operations and are normally related to facilities managed under RCRA or other regulatory requirements. DoD adherence to the provisions of these permit requirements will allow for the assumption and estimation of a "clean close" of these facilities. A "clean close" consists of activities such as the complete removal of all wastes and contaminants—including contaminated soil and equipment— and full decontamination of facilities as defined in regulations. Depending on activity, there may be monitoring and sampling when certain activities are taken out of service (e.g., a landfill closed or an underground tank removed).

Most non-DERP post-closure monitoring costs for ongoing operations should be recognized under the assumption of a "clean close." This assumes that the ongoing activities are operating in accordance with all applicable laws, regulations, and Component policies. Therefore, there should be no environmental action required other than the normal decontamination and decommissioning of the operating facilities. In addition, a "clean close" exempts these sites from conducting post-closure groundwater monitoring (40 CFR 264.90(C)(1)).

Solid Waste Management and other Permitted Facilities. RCRA Subtitle D addresses solid wastes including those hazardous wastes that are excluded from Subtitle C regulations (e.g., household hazardous waste) and hazardous waste generated by conditionally exempt small quantity generators. When managed under Subtitle D, environmental closure liabilities should be limited to the types of activities addressed above. The following examples are facilities that may have waste streams permitted under RCRA Subtitle D, the Clean Water Act (CWA), or the Safe Drinking Water Act (SDWA):

- Solid waste landfills
- Waste water treatment plants
- Water supply treatment facilities

If facilities such as those listed above will have a future "environmental cleanup" as described in section 2.0 of this guidance, then the environmental liability will have to be recognized. Please note that the environmental costs associated with the day-to-day management of those facilities, including routine disposal of solid waste, is an "operating cost" and not an environmental liability.

Underground Storage Tanks (USTs) and Aboveground Storage Tanks (ASTs). Environmental laws and regulations address petroleum products and other hazardous substances that may be present on-site in USTs or ASTs or their associated underground pipelines. When these activities are managed in accordance with the relevant environmental regulations, such as the RCRA UST regulations, a "clean close" can be assumed and the environmental disposal liabilities (closure and post-closure costs) should be limited to leaving the tank in place and filling it with an inert substance that is harmless and chemically inactive, or removal of the tank from the ground and appropriately treating all of the liquid and sludge removed from the tank.

Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDFs). RCRA addresses TSDF facilities and is intended to ensure hazardous waste is managed safely from the moment it is generated to the moment of its disposal. RCRA and its implementing regulations include standards for facilities that generate, transport, treat, store, or dispose of hazardous waste. When these activities are managed in accordance with Subtitle C, a "clean close" can be assumed and the environmental disposal liabilities

(closure and post-closure costs) should be limited to normal decontamination and decommissioning of the operating facilities. The following examples are activities or facilities that are TSDFs or may have waste streams managed under RCRA:

- Power plants
- Plating shops
- Chemical storage areas of drinking water or sewage treatment plants
- Fire training pits
- Ammunition and explosives manufacturing plants
- Open-burn and open-detonation facilities

Appendix C–Environmental Actions for Military Munitions at Operational Ranges

Information in this appendix is applicable to all non-DERP environmental liability estimates for installations and the applicable activities, facilities, and equipment thereof.

Estimated range disposal costs for operational ranges[1] shall be recognized as an environmental liability only after a formal management decision has been made to close the range. An environmental liability also has to be recognized, prior to closure determination, if there is a risk posed from contamination that extends beyond the boundaries of the operational range as described below.

Environmental actions at operational ranges for military munitions would typically be limited to the actions responding to the risk from contamination on the surface, in the soil, or in the groundwater that create or threaten an imminent and substantial endangerment to public health and welfare or to the environment beyond the range boundaries. Contamination may include munitions and explosives of concern and chemical residues from military munitions constituents at ranges. Liabilities associated with these environmental actions for military munitions shall be recognized for the total estimated cost of environmental actions as soon as there is enough information to prepare an estimate.

When ranges are managed in accordance with applicable DoD regulations and the EPA's Military Munitions Rule, there will likely not be an environmental liability resulting from munitions operations.

The minimum non-DERP liability estimate for a range where a formal decision has been made to close the range will be the estimated cost of conducting a study to determine the disposal and/or closure costs. In summary:

- In the event there is a release or substantial threat of a release of military munitions from the operational range to off-range areas, which would require an environmental action, then the liability should be estimated and reported as a non-DERP environmental liability.
- Closure and disposal liabilities not related to military munitions will be handled as with all other environmental disposals and closures.

Note: *The recovery, collection, and on-range destruction of unexploded ordnance and munitions fragments during periodic range clearance activities do not represent environmental disposal liabilities, but are expenses associated with the operation, management, and sustainment of the range and are treated as current period expenses.*

[1] Note 14 referrs to operational ranges as "Active Ranges."

Appendix D–Accounting for a Non-DERP Environmental Liability

Information in this appendix is applicable to all non-DERP environmental liability estimates for installations and the applicable activities, facilities, and equipment thereof

As can be seen below, the accounting rules for what and how to recognize environmental liability can be complex and depend on the type of PP&E. Both the Component functional and financial communities need to work closely in determining non-DERP environmental liability sites and developing the associated estimates. The financial community has the responsibility to determine the proper accounting treatment for the estimates and convey that to the functional community, so that the relevant cost estimates can be prepared.

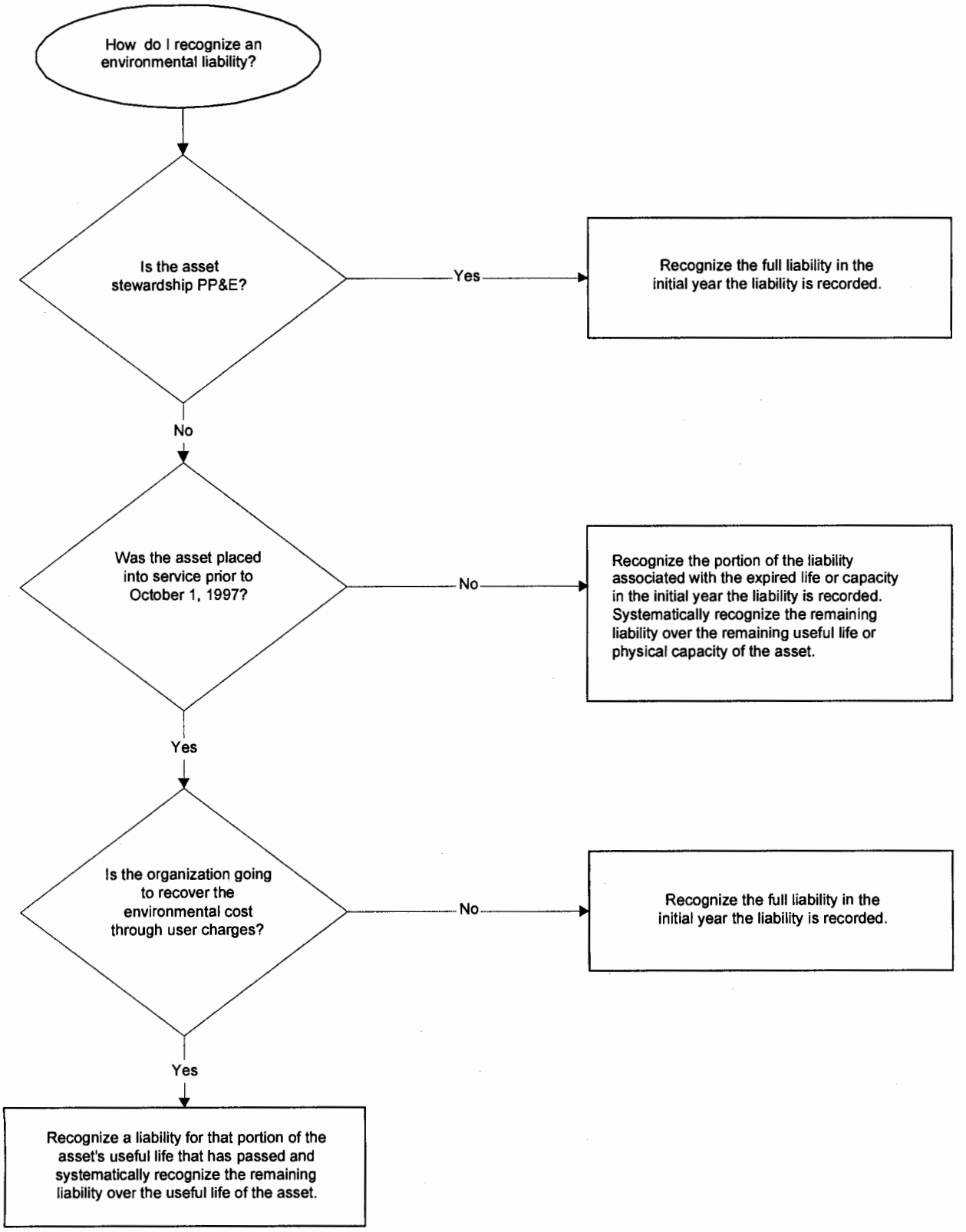
Accounting for Plant, Property, and Equipment (PP&E). Total estimated cost of environmental liabilities associated with General PP&E placed in service prior to October 1, 1997 shall be recognized in the initial year the liability is recorded, unless the costs are intended to be recovered through user charges[2]. If the costs are intended to be recovered through user charges, then the Components shall recognize a liability for that portion of the asset that has passed since the PP&E was placed into service and the remaining liability shall be systematically recognized over the remaining useful life. Figure 2 provides a flow diagram illustrating the accounting rules for the recognition of environmental liabilities for PP&E, and FMR Volume 4, Chapter 6, contains a detailed discussion on PP&E.

For PP&E placed in service on or after October 1, 1997:

- Probable and measurable disposal costs shall be allocated, based on physical capacity or useful life, to annual reporting periods benefiting from operations of the PP&E. If physical capacity is not applicable or estimable, the estimated useful life of the associated PP&E may serve as the basis for systematic and rational recognition of the liability
- Recognition of the liability shall begin on the date the PP&E is placed into service, continue in each annual period that operation continues, and be completed when the PP&E ceases operation. Disclosure of the total estimated cost is required in the narrative portion of each year's financial statements
- Non-DERP environmental liability estimates may be prepared at the installation or other organizational levels but must provide information on a unique site (e.g., a discrete UST, landfill, sewage treatment plant, etc.) basis. Cost estimates shall consider, on a current cost basis, the anticipated costs of the level of effort required to "clean close" an operation at a RCRA or similarly permitted facility/activity. Closure costs and any required post-closure costs are combined to form the total cost estimate used to determine the non-DERP environmental liability. All cost estimates should be based on current dollar costs using currently available technology. Cost estimates must be prepared based on approved cost estimating methodologies (see Appendix H). All estimates shall be revised annually. If factors such as technology, cost factors, inflation rate, or regulations have changed, the estimate must be revised to reflect the new requirements and information

[2] "User charges" in this context refers to charges made by a DoD entity to cover costs, such as surcharges used in Working Capital Fund.

Figure 2. Recognition of Environmental Liabilities for Property, Plant, and Equipment



Accounting for Landfill Closure and Post-Closure Care Costs. DoD owned landfills shall be treated as general PP&E. Landfills represent an operation generally conducted under terms of a permit issued by the appropriate Federal or State environmental authority. Regardless of when the facility was placed in operation, the following items must be taken into consideration when preparing non-DERP environmental liability estimates and in assessing the type of information that must be available for financial statement and management purposes.

- DoD components operating permitted landfills are required to estimate the costs of closure and post-closure care requirements based on applicable Federal or State regulatory requirements. Information required includes:
  - The process used for closure and post-closure care cost estimates
  - The estimated total closure and post closure costs
  - The percentage of existing landfill physical capacity projected to be used through the fiscal year
  - The type of landfill
  - The estimated remaining life of the landfill in years
- Certain costs that result in disbursements near or after the date the landfill stops accepting additional waste and during the post-closure period shall be included in the total estimated cost of landfill closure and post-closure care
- The cost estimates shall be based on applicable Federal or State regulations concerning closure and post-closure care required as of the financial statement reporting date. Non-DERP liability estimates are the amounts that would be paid if all equipment, facilities, and services included in the estimates were acquired during the current fiscal year. After the initial preparation of the liability estimates, costs estimates shall be adjusted annually to reflect any changes in prices, technology, or other significant changes. The effect of any significant changes on estimates that occur before the landfill closes is to be reported in the year of the change

Accounting for Underground/Aboveground Tank (UST/AST) Closure and Post-Closure Costs. UST/ASTs containing hazardous materials, including those regulated by the terms of a permit issued under RCRA Subtitle I, must have an environmental liability estimate developed. For accounting purposes, the tank life is assumed to be the recovery period for facilities and other real property structures in FMR Volume 4, Chapter 6 (currently 20 years).

- Upon closure, the operator is responsible to remove all liquids and accumulated sludge from the tank and either remove the tank from the ground or fill the tank with an inert solid material, such as concrete or sand (depending on the state and local regulation). The costs to perform these operations represent what is defined as a "clean close"
- This cost estimate should be performed using an engineering estimate or a validated cost model such as RACER and reported for each regulated tank. The cost estimate is to be prepared for all closure costs as if they occurred this year (current cost basis). Cost estimates should be adjusted at least annually for changes in technology, laws and regulations, and costs factors

Accounting for Treatment, Storage and Disposal Facility (TSDF) Hazardous Waste Facility Closure and Post-Closure Costs. The effect of EPA regulations and similar state and local laws and regulations require owners and operators of TSDF facilities to incur certain closure and post-closure care costs. For accounting purposes, the cost of non-DERP environmental liabilities is estimated for each permitted facility at the time the facility is placed into service. Non-DERP liabilities for RCRA TSDF will be based on the assumption of a "clean closure" of the site, unless otherwise warranted by site specific facts, as defined in regulations. Therefore, there should be no environmental cleanup required other than the normal decontamination and decommissioning of the operating facilities. In addition, a "clean close" exempts these sites (i.e., the physical facility that treats, stores, or disposes of hazardous

waste and not the entire installation covered by the permit) from conducting post-closure groundwater monitoring (40 CFR 264.90(C)(1)).

- Closure and post-closure costs must be estimated using current year costs. Estimates may be prepared using actual site data for similar sites, engineering estimates, or a validated cost model such as RACER. For TSDFs placed in service on or after October 1, 1997, the estimated environmental liability shall be systematically recognized over an expected life for each physical facility, based on recovery periods for facilities referenced in the FMR Volume 4 Chapter 6

Note: *There may be a difference between the estimate prepared for RCRA permit purposes and the estimate created for financial statement purposes. This is due to the fact that the regulatory authority may require the inclusion of a number of facilities in the permit closure plan instead of the discrete site(s) for which an environmental liability is being estimated. Therefore, the closure cost estimate in the permit may not reflect that estimated for financial statements.*

Appendix E–Current and Non-Current Environmental Liability

Information in this appendix is applicable to all non-DERP environmental liability sites and estimates.

Note 14 reports total environmental liabilities as current and non-current. Each Component is responsible for ensuring the accuracy of its current liability estimate. Pending implementation of the modernized systems in accordance with the Department's Business Management Modernization Programs, Components shall estimate its current liabilities based on the entity's disbursement or outlay goals, which generally are based on historical outlays. The current liability is the sum of the expected outlays in the next 12 months from the following sources:

- Unliquidated obligations from the current and prior years
- Unobligated balances that are available for execution
- Funding from expected appropriations

An example outlay profile is shown below.

Environmental Account	Annual	Cumulative
Initial year of Obligation	22%	22%
Second year of Obligation	45%	67%
Third year of Obligation	22%	89%
Fourth year of Obligation	6%	95%
Fifth year of Obligation	5%	100%

Components need to use the profile for specific program and appropriation, published annually by the OSD Comptroller to estimate current liabilities.

Non-current environmental liabilities represent the remaining cost estimates for completing all activities including ULOs, i.e., all liabilities that are expected to be outlayed more than 12 months beyond the date of the financial statement. Non-current liabilities are stated on a current cost basis (i.e., as if all the costs were to be paid in the current year).

The following simplified hypothetical examples illustrate the concept and calculation of current, non-current, and total liabilities.

Scenario 1. In Fiscal Year 1998, DoD Component X estimates that there is an environmental liability of $100M (in FY2000 dollars) for which funds will be available in FY2010. The table below shows how the liability would be reported in each of the reporting years. Note:

- Future liability (other than ULOs) are on a current year basis (i.e., in the FY dollars of the reporting date), as illustrated in the hypothetical adjustments shown below
- Total Liability = Current Liability + Non-current Liability

		Non Current Liability			
Reporting Fiscal Year	**Current Liability (Outalys in the next 12 months)**	Unliquidated Obligation (ULO)	Future Cost (Current cost basis)	**Total Non-Current Liability**	**Total Liability (Current + Non-Current)**
1998	**$0M**	$0M	$90M	**$90M**	**$90M**
1999	**$0M**	$0M	$95M	**$95M**	**$95M**
2000	**$0M**	$0M	$100M	**$100M**	**$100M**
2001	**$0M**	$0M	$105M	**$105M**	**$105M**
2002	**$0M**	$0M	$110M	**$110M**	**$110M**
2003	**$0M**	$0M	$115M	**$115M**	**$115M**
2004	**$0M**	$0M	$120M	**$120M**	**$120M**

Scenario 2. In Fiscal Year 1998, DoD Component X estimates that there is an environmental liability of $100M (in FY2000 dollars) for which funds will be available in FY2000. The table below shows how the liability would be reported in each of the reporting years. Note:

- Outlays are calculated based on the hypothetical disbursement goals above and is the basis for reported current and non-current liability.
- In the FY1999 report, for sake of simplicity the total liability is shown as $95M on a current FY1999 basis:
  - The $22M represents the expected outlay that will be paid out based on anticipated appropriation of $100M in FY2000. For illustrative purposes, the amount shown is in FY2000 rather than FY1999 dollars
  - The remaining amount is not an ULO as an obligation has not occurred, but rather is a future cost stated in hypothetical FY1999 dollars
- ULO are always the actual amount (i.e., in the original FY dollars and not inflated or deflated), as shown for FY2000 forward below.
- Total Liability = Current Liability + Non-current Liability

		Non Current Liability			
Reporting Fiscal Year	**Current Liability (Outalys in the next 12 months)**	Unliquidated Obligation (ULO)	Future Cost (Current cost basis)	**Total Non-Current Liability**	**Total Liability (Current + Non-Current)**
1998	**$0M**	$0M	$90M	**$90M**	**$90M**
1999	**$22M**	$0M	$73M	**$73M**	**$95M**
2000	**$45M**	$33M	$0M	**$33M**	**$78M**
2001	**$22M**	$11M	$0M	**$11M**	**$33M**
2002	**$6M**	$5M	$0M	**$5M**	**$11M**
2003	**$5M**	$0M	$0M	**$0M**	**$5M**
2004	**$0M**	$0M	$0M	**$0M**	**$0M**

Appendix F–Environmental Liability Management Framework

Information in this appendix is applicable to all non-DERP environmental liability sites and estimates.

As a part of identifying potential environmental liabilities, it is important that entities develop and have in place an effective management control framework to ensure the reasonableness of accounting estimates and subsequent correction of the environmental requirement.

Each Component shall develop a framework outlining the implementation of controls that reduce the likelihood of making material misstatements of estimates. Specific best practices for effective management controls include the following:

- Senior management's communication and emphasis on the importance of properly preparing and documenting environmental liability estimates
- Accumulation and documentation of relevant, sufficient, and reliable data on which to base estimates
- Preparation of annual estimates by qualified personnel. The Component must establish specific personnel qualifications for cost estimators, which at a minimum must include training and experience in general environmental program, type of estimate being developed, Component practices used in preparing cost estimates, and the cost estimating techniques or tools used in preparation of the cost estimate
- Adequate review and approval of estimates by appropriate levels of authority who review:
  - Sources of relevant information
  - The development and reasonableness of assumptions and the resulting estimates
  - Consideration given to the need to use the work of specialists
  - Consideration given to implementing changes to previously established methods of developing estimates
- Comparison of prior estimates and any subsequent results to assess the reliability of the processes used to develop estimates
- Management's consideration of whether the resulting estimates are consistent with the plans of the entity
- Management's consideration of the need for establishing parameters for providing feedback to estimators on changes made to original estimates
- Adequate documentation of processes and procedures for creating, documenting, changing, reviewing, approving, updating and decreasing estimates due to expenditures made; estimate retention and change procedures; and feedback mechanisms. Note that it is a management responsibility to establish what is "adequate" documentation for preparing and reporting liability estimates

Additional information on preparation of non-DERP environmental liability estimates is in Appendix G, and information on documentation and audit trail is in Appendix H.

Pending systems modernization, Components must use alternate means to manage information that contains both an inventory of all sites and their associated estimates so that the universe of environmental actions can be tracked and updated as changes occur. This data bank should contain at a minimum the following information:

- The site identification and unique site number
- The identification and unique identification number of the PP&E associated with the site
- The date PP&E put into Service and total, expired, and remaining capacity or useful life (depending on basis for accruing liability)

- The status of the site (Permitted, Open, Closed, Post-Operation Monitoring, Permit Number and Applicable Regulatory Scheme, etc.)
- An estimate of the anticipated closure date or actual closure date
- An estimate of the total closure or disposal liability, including any anticipated post closure costs associated with the site
- The cumulative amount of closure or disposal costs liability recognized and remaining to be recognized
- The cumulative amount of closure or disposal costs incurred
- An estimate of the remaining closure or disposal cost, including any required post-closure monitoring

The non-DERP environmental liability management framework and the databank must have the capability to generate the following Note 14 disclosures in notes or narratives about the amounts reported on the face of the financial statements.

- Sources (list applicable laws and regulations) of non-DERP environmental liability requirements
- Description of the type of environmental and disposal liabilities identified
- Nature of estimates and the disclosure of information regarding possible changes due to inflation, deflation, technology, or applicable laws and regulations
- Method for assigning estimated total costs to current operating periods
- Level of uncertainty regarding the recognized non-DERP environmental liability estimates
- Amount of non-DERP environmental liability not covered by budgetary resources
- Unrecognized amounts of non-DERP environmental liabilities for assets that require the systematic recognition of the total estimated costs
- Estimated costs associated with General PP&E placed into service during each fiscal year
- Material changes in the total estimated costs due to changes in laws, technology, or plans
- Portion of the changes in estimated costs due to changes in laws and technology that is related to prior periods

Appendix G–Preparation of Non-DERP Environmental Liability Estimates

Information in this appendix is applicable to all non-DERP environmental liability sites and estimates.

Cost estimates used to develop environmental liability estimates must document cost information by identifying:

- Sources of requirements (i.e., applicable laws and regulations)
- Methods for assigning estimated total costs to current reporting periods
- Material changes (a plus or minus change of more than 10 percent of the prior 30 Sep balance) in the total estimated costs of activities and the portion of the change in estimate that relates to prior fiscal year operations
- Disclosure of information regarding possible changes due to inflation, technology, applicable laws, regulations, and policies

Components must ensure the reliability and completeness of data used to calculate cost estimates and subsequent environmental liability estimates. Components shall ensure these data are complete, up-to-date, and properly documented in a manner that will withstand an audit. The intent is not to create additional, burdensome documentation, but to use to the maximum extent possible existing program documentation, processes, procedures, and estimates. A best practice is to have a "checklist summary" outlined in Section 12.0. Components shall ensure that:

- Their reporting systems accumulate both total and site level data and forward any relevant and significant changes in a timely fashion
- Their cost estimates include, on a current cost basis, all anticipated costs required to affect the correction/closure/disposal of the site, as well as the costs of complying with applicable legal, regulatory, and policy requirements. This requires that components' cost estimates must be based on technologies currently available, and include the cost of completing studies, cleanup, removal, or closure or disposal activities, including post-closure monitoring costs
- They are using approved cost estimating methods. The generally accepted methods are:
  - Parametric cost modeling using a system that has been verified, validated, and accredited according to DoDI 5000.61
  - Comparison with similar sites and/or activities or class of property
  - Site specific engineering estimate
- Their cost estimates and environmental liability reports are developed and implemented using a formal document process. This process must allow for the identification and tracking of all changes made to a source document, from the point of its creation through the use of its information in the final report. There must be a formal process for tracking the documentation retained by a component to identify data sources, estimating method, and rationale used
- There must be clear documentation of management's review of the estimates and this source documentation must be retained in accordance with the FMR and records management policies. This documentation must also include an evaluation of environmental disposal liability disclosure and documentation practices as part of a component-specific environmental self-auditing program

Components must disclose instances where they do not meet accounting standards and shall review financial processes, systems, and data, and modify or expand, as necessary, the sample disclosure statements so each statement is a complete and accurate representation of the issue being addressed. Further information on the topics discussed in this appendix is available in the FMR, Volume 4, Chapter 13. An important distinction to keep in mind is that the cost estimates and the associated documentation falls to the functional community, and the financial community uses those cost estimates to develop the environmental liability estimates that are appropriately recognized and disclosed on the financial statements. Both communities have to work collaboratively for mutual success.

Appendix H–Creation of an Audit Trail for Environmental Liability Estimates

Information in this appendix is applicable to all non-DERP environmental liability estimates for installations and the applicable activities, facilities, and equipment thereof.

When evaluating whether a Component has generated estimates for all environmental liabilities that may cumulatively be material to financial statements, program managers must consider the component's methods of conducting business, circumstances in which the Component operates, new accounting pronouncements, and other relevant external factors. Component's management, in conjunction with their supporting financial and legal offices, must also ensure that their processes and procedures used to verify the accuracy and completeness of all probable environmental disposal liabilities include the following characteristics:

- Inventory of all sites with environmental cost estimates as a permanent record that identifies sites remaining in the installations inventory regardless of their status or how they are managed
- Annual validation of site inventories with Plant, Property and Equipment records. Any Component that maintains an inventory of real property data for its own purposes must reconcile with the official DoD Real Property Inventory (RPI) and equipment records annually
- A permanent, unique identifier assigned to each site that does not change through the life of the site
- An ability to track environmental actions at individual sites, determine the current status of each site, and track financial information related to each site over time to provide explanations of material changes required in the narrative portion of the DoD financial statements
- An ability to conduct analyses of site information, produce consistent and logical reports over time, and forward changes in site information to necessary locations in a timely fashion
- An ability to ensure data is complete, up-to-date, and properly documented in a manner that will withstand an audit

Pending systems modernization, Components must use alternate means to manage information that contains both an inventory of all sites and their associated estimates so that the universe of environmental actions can be tracked and updated as changes occur. The information to be contained in this data bank is discussed in Appendix G.

In addition to assessing a Component's ability to operate using effective management processes and procedures, auditors generally evaluate a component based on information obtained through other procedures such as that pertaining to the following:

- Changes made or planned in the Component's business including changes in operating strategy that may indicate the need to make an accounting estimate (i.e., does the entity operate an industrial-like facility such as TSDF, Landfill, etc.)
- Changes in the methods of accumulating information
- Available minutes from meetings of local senior-level personnel, department heads, review committees/boards
- Reports from any regulatory, audit or examination group; supervisory correspondence, and/or similar materials from applicable regulatory agencies such as EPA and OSHA

Appendix I–Acronyms and Glossary

Information in this appendix is applicable to all non-DERP environmental liability estimates.

- **Active Range** – This older term refers to a military range that is currently in service and is being regularly used for range activities, or a military range that is not currently being used, but that is still considered by the Military to be a potential range area, and that has not been put to a new use that is incompatible with range activities. The current term is "operational range."
- **Amortization** – The systematic reduction of a lump-sum amount. When referring to long-lived assets, it usually means the allocation of the liability associated with closure or disposal of the asset to the periods that benefit from these assets.
- **Asset** – A probable economic benefit obtained or controlled by a particular entity as a result of past transactions or events.
- **AST** – Aboveground Storage Tank.
- **Audit** – An in-depth examination of transactions and financial statements made in accordance with generally accepted auditing standards.
- **Audit Trail** – A list of transactions in the order they occurred and the accompanying documentation that validates or invalidates the appropriateness of the transactions.
- **Clean Close** - Assumes that ongoing activities are operating in accordance with all applicable environmental laws, regulations, and Component policies.
- **Closed Range** – This older term refers to a military range that has been taken out of service as a range and has either been put to new uses that are incompatible with range activities or is not considered by the military to be a potential range area. The current term is "Other than an operational range."
- **Current Liability** – Liabilities of an entity presented on its financial statements that are expected to by paid (i.e., actual outlays) during its next 12 months.
- **DERP Environmental Liability** – Any liability attributed to the DERP program as defined in 10 USC §2701(b). This includes: (1) The identification, investigation, research and development, and cleanup of contamination from hazardous substances, pollutants, and contaminants; (2) Correction of other environmental damage (such as detection and disposal of unexploded ordnance) that creates an imminent and substantial endangerment to the public health or welfare or to the environment; and (3) Demolition and removal of unsafe buildings and structures, including DoD buildings and structures at sites formerly used by or under the jurisdiction of the Secretary of Defense (OSD). For guidance pertaining to DERP issues refer to the Management Guidance for the Defense Environmental Restoration program. All other environmental liabilities are considered "non-DERP."
- **Disclosure** – "Disclosure" means to report the information in the narrative of the notes to the financial statements. The notes are an integral part of the financial statements and should withstand audit scrutiny.
- **Environmental Liability** – An obligation to make a future expenditure due to past or on-going activities that adversely affect the environment.
- **Expense Recognition Rule** – An accounting rule that requires expenses to be recognized (recorded) in the accounting period that they provide an economic benefit to an entity.

- **Financial Statements** – The principle means organizations use to communicate financial information regarding an entity to individuals external to the entity.
- **Liability** - A probable future sacrifice of economic benefits arising from present obligations to transfer assets or provide services in the future as a result of past transactions or events.
- **Materiality** – Refers to the relative importance of specific items of accounting information; an item is material if it is large enough or significant enough to influence the decision of a third-party.
- **Military Munitions** – All ammunition products and components produced or used by or for the U.S. Department of Defense or the U.S. Armed Services for national defense and security, as described in 10 USC §2710(e)(3)(a).
- **Non-DERP Liability** – An environmental liability resulting from any past or ongoing operation that does not qualify as Defense Environmental Restoration Program (DERP) activity under 10 USC §2701(b). Examples include spills or releases from ongoing operations at underground storage tanks (USTs), aboveground storage tanks (ASTs), treatment, storage, and disposal facilities (TSDFs), or landfills; the destruction of stockpile and non-stockpile lethal chemical agents and munitions; and nuclear-powered asset disposal. Generally the closure and/or restoration/cleanup of sites resulting from actions under a permit (i.e. RCRA permit or other permitting processes) are funded using the funding source supporting the permitted activity resulting in the contamination, and thus are non-DERP actions.
- **Operational Range** – A military range that is currently in service and is being regularly used for range activities, or a military range that is not currently being used, but that is still considered by the Military to be a potential range area, and that has not been put to a new use that is incompatible with range activities.
- **Property, Plant and Equipment (PP&E)** – Full discussion on PP&E is contained in FMR Volume 4, Chapter 6. Generally PP&E fall under one of the following areas:
  - General PP&E.
  - National Defense (ND) PP&E consists primarily of weapon systems, components of weapon systems, and military support PP&E used in performance of military missions. This category no longer exists, and has been re-classified as "General PP&E."
  - Heritage assets, such as monuments and historic buildings.
  - Stewardship land, which is all land not held in connection with general PP&E or land acquired at no cost.
- **RCRA** - Resource Conservation and Recovery Act.
- **Real Property** – Real estate—including the land, right, title, and interest therein and improvements thereon— owed by the United States and under the control of the Department of Defense.
- **Recognition** – An entity's formal acknowledgement of a financial activity through its properly recording the required transaction(s) in its financial statements for a given period.
- **Site** - Plant, Property, & Equipment (PP&E) activity, asset, or facility, either existing or previously removed, for which there is an associated environmental liability. A non-DERP site is given an unique name, and within installations is a distinct piece of equipment, facility, structure or area treated as a discreet entity. Installations and ranges typically have more than one site.
- **Source Document** – The supporting original records identifying the key features or parameters of a transaction.
- **TSDF** - Treatment Storage and Disposal Facilities.

- **Useful Life** – The expected life of an asset.. A more thorough explanation of useful life is in FMR Volume 4, Chapter.
- **ULO** – Unliquidated obligations are funds that have been obligated but have not been disbursed.
- **UST** - Underground Storage Tank.

Appendix J–References

Information in this appendix is applicable to all non-DERP environmental liability estimates.

1. American Institute of Certified Public Accountants (AICPA) Statement of Position 96-1, Environmental Remediation Liabilities
2. Chief Financial Officer's Act of 1990, Public Law 101-576, 31 USC, §901 – 903
3. DoD Financial Management Regulation 7000.14-R, Volume 1, Chapter 2: Conceptual Framework [Materiality is discussed in Addendum 1]
4. DoD Financial Management Regulation 7000.14-R Volume 4, Chapters 6: Property, Plant, and Equipment
5. DoD Financial Management Regulation 7000.14-R Volume 4, Chapters 13: Environmental and Nonenvironmental Liabilities

   [Note: FMR Volume 4, Chapter 13 consolidates the previous Chapters 13 and 14.]
6. DoD Instruction 5000.61: DoD Modeling and Simulation (M&S) Verification, Validation and Accreditation
7. Environmental Protection Agency, 530-Z-95-013; 40 CFR Parts 260, 261, 262, 263, 264, 265, and 270: Military Munitions Rule: Hazardous Waste Identification and Management
8. Federal Financial Accounting and Auditing Technical Release Number 2: Determining Probable and Reasonably Estimable for Environmental Liabilities in the Federal Government
9. Federal Financial Management Improvement Act of 1996. Public Law 104 – 208, 31 USC, §801-808 (3512 *note*).
10. Government Performance and Results Act of 1993. Public Law 103 – 62, 5 USC §306.
11. Office of the Deputy Under Secretary of Defense (Installations and Environment): Management Guidance for the Defense Environmental Restoration Program (DERP), September 2001
12. Statement of Federal Financial Accounting Standards (SFFAS) No 5: Accounting for Liabilities of the Federal Government
13. Statement of Federal Financial Accounting Standards (SFFAS) No 6: Accounting for Property, Plant, and Equipment
14. Statement of Federal Financial Accounting Standards (SFFAS) No 23: Eliminating the Category National Defense Property, Plant, and Equipment
15. United States Title10, Subtitle A, Part IV, Chapter 160 USC §2701(b): Environmental Restoration Program
16. United States Title 50, Subtitle A, Part IV, Chapter 32, USC §1521: Destruction of Existing Stockpile of Lethal Chemical Agents and Munitions

Related and additional information can be accessed at the following websites:

http://www.dod.mil/comptroller

http://www.fasab.gov