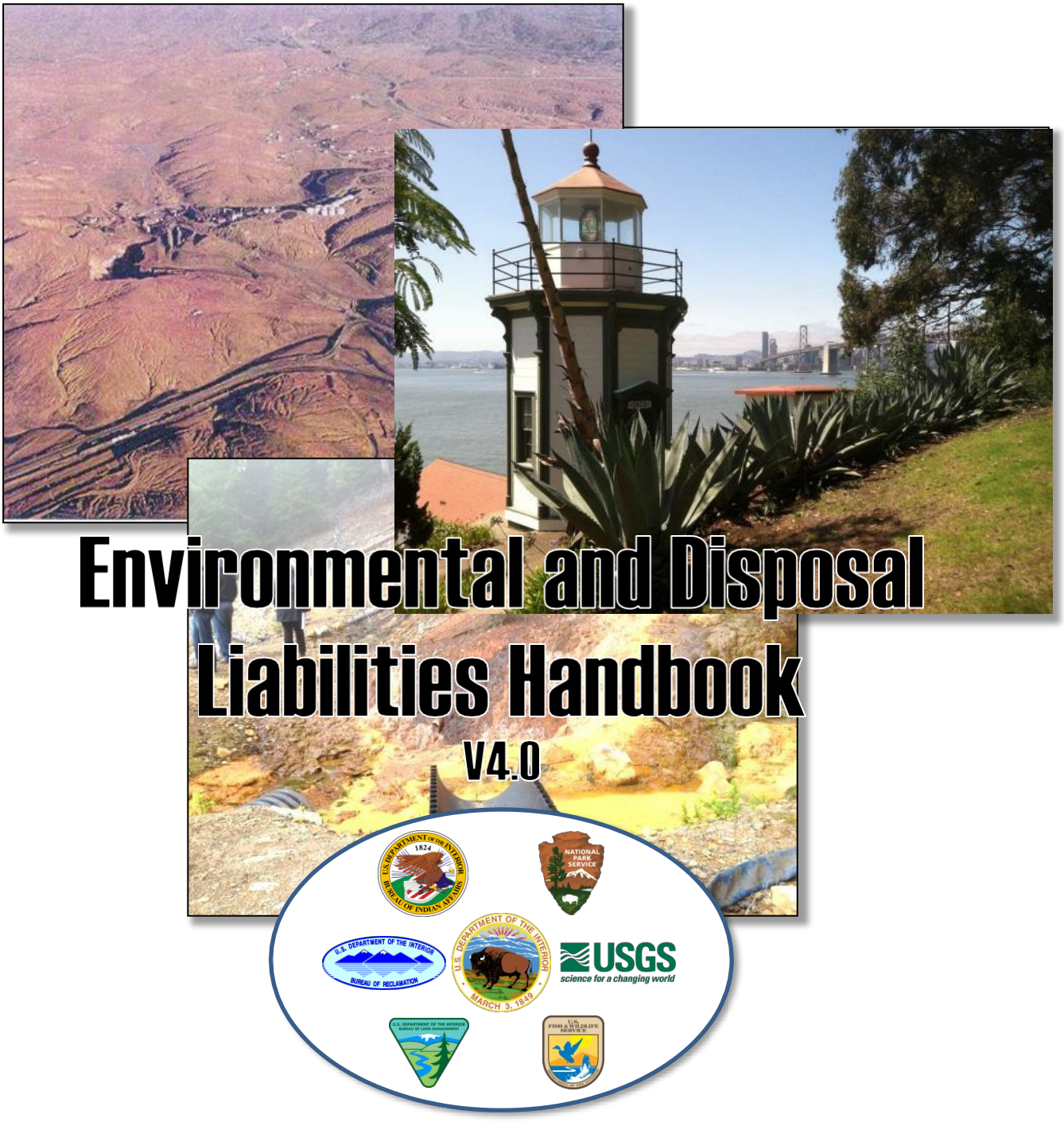
U.S. Department of the Interior



Environmental and Disposal Liabilities Handbook

V4.0
Office of the Secretary
Office of Environmental Policy and Compliance
Environmental Compliance and Liabilities Management Team
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List of Acronyms

AAPC	Accounting and Auditing Policy Committee
AFR	Agency Financial Report
AML	Abandoned Mine Lands
AST	Above Ground Storage Tank
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BOR	Bureau of Reclamation
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CHF	Central Hazardous Materials Fund
CMS	Corrective Measures Study
CTC	Cost-to-Complete
CWA	Clean Water Act
Department	Department of the Interior
DERP	Defense Environmental Restoration Program
EE/CA	Engineering Evaluation and Cost Analysis
EDL	Environmental and Disposal Liability
EMIS	Environmental Management Information System
FASAB	Federal Accounting Standards Advisory Board
FBMS	Financial and Business Management System
FRTR	Federal Remediation Technologies Roundtable
FUDS	Formerly Used Defense Site
GAAP	Generally Accepted Accounting Principles
GMRA	Government Management Reform Act
Handbook	EDL Handbook Version 4.0
HCAS	Historical Cost Analysis System
IGE	Independent Government Estimate
LL	Lower Limit
LTM	Long-term Monitoring
MLS	Military Legacy Site
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPDES	National Pollutant Discharge Elimination System
No.	Number
OEPC	Office of Environmental Policy and Compliance
O&M	Operation and Maintenance
OMB	Office of Management and Budget
P	Probable
PAM	Office of Acquisition and Property Management
PA/SI	Preliminary Assessment / Site Inspection
PFM	Office of Financial Management
PMB	Office of Policy, Management, and Budget
PRP	Potentially Responsible Party
R	Remote
RACER	Remedial Action Cost Engineering and Requirements

RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation and Feasibility Study
RP	Reasonably Possible
ROD	Record of Decision
SEMS	Superfund Enterprise Management System
SFFAS	Statement of Federal Financial Accounting Standards
TSCA	Toxic Substances Control Act
UL	Upper Limit
URL	Universal Resource Locator
UST	Underground Storage Tank

1 Introduction

Per Statement of Federal Financial Accounting Standard (SFFAS) Number (No.) 5, *Accounting for Liabilities of the Federal Government*, federal agencies are required to recognize and/or disclose environmental liabilities in their financial statements. Agencies are required to recognize a liability when a future outflow or other sacrifice of resources as a result of past transactions or events is *probable* and *measurable.* Liabilities that do not meet the criteria of *probable*, but are *reasonably possible,* are disclosed in the notes to the financial statement. In addition, the Office of Management and Budget (OMB) requires the Department of the Interior (Department or DOI) and other federal agencies to prepare annual audited financial statements in accordance with the Chief Financial Officers Act of 1990 (Public Law 101-576) and the Government Management Reform Act of 1994 (GMRA) (Public Law 103-356). OMB also requires unaudited financial statements for the third quarter of the fiscal year in accordance with OMB Circular A-136, *Financial Reporting Requirements*. The Department's bureaus are required to report environmental and disposal liabilities quarterly.

This guidance provides a consistent approach for estimating and reporting environmental and disposal liabilities across all bureaus.

There are two types of environmental and disposal liabilities (EDL) reported by the Department: (1) environmental remediation liability and (2) asbestos cleanup liability. Environmental remediation liability is associated with EDL sites that are contaminated and warrant further study or cleanup. The asbestos cleanup liability is associated with the management of asbestos where there has been no associated release of asbestos to the environment, such as during renovation or the disposal of asbestos-containing assets.

1.1 Applicable Laws, Standards, and Guidance

The reporting of environmental liabilities must conform to governmental accounting standards and laws including:

- *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA), 42 U.S.C. 103
- *Resource Conservation and Recovery Act* (RCRA), 42 U.S.C. §6901 et seq.
- *Toxic Substances Control Act* (TSCA), 15 U.S.C. 53
- *Clean Water Act* (CWA), 33 U.S.C. 26
- *National Oil and Hazardous Substances Pollution Contingency Plan,* 42 U.S.C. 9605
- *Chief Financial Officers Act of 1990*, Public Law 101-576, 101st Congress- Second Session
- *Government Management Reform Act of 1994*, Public Law 103-356, 103rd Congress- Second Session
- OMB Circular A-94 - *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*
- OMB Circular A-123 – *Management's Responsibility for Internal Control, issued by the Office of Management and Budget*, revised July 15, 2016
- OMB Circular A-136 - *Financial Reporting Requirements*, issued by the Office of Management and Budget, revised annually
- Statement of Federal Financial Accounting Standards (SFFAS) Number (No.) 5,

Accounting for Liabilities of the Federal Government, as amended, issued by the Federal Accounting Standards Advisory Board

- Statement of Federal Financial Accounting Standards No. 6, *Accounting for Property, Plant, and Equipment*, as amended, issued by the Federal Accounting Standards Advisory Board
- Technical Bulletin 2006-1, *Recognition and Measurement of Asbestos-Related Cleanup Costs*, issued by the Federal Accounting Standards Advisory Board, September 28, 2006
- Technical Bulletin 2009-1: *Deferral of the Effective Date of Technical Bulletin* 2006-1, *Recognition and Measurement of Asbestos-Related Cleanup Costs*, issued by the Federal Accounting Standards Advisory Board, September 22, 2009
- Technical Bulletin 2011-2: *Extended Deferral of the Effective Date of Technical Bulletin* 2006-1, issued by the Federal Accounting Standards Advisory Board, September 22, 2011.
- Technical Release 10: *Implementation Guidance on Asbestos Cleanup Costs Associated with Facilities and Installed Equipment*, issued by the Federal Accounting Standards Advisory Board, June 2, 2010.
- Technical Release 11: *Implementation Guidance on Cleanup Costs Associated with Equipment*, issued by the Federal Accounting Standards Advisory Board, June 2, 2010.
- Technical Release 14: *Implementation Guidance on the Accounting for the Disposal of General Property, Plant & Equipment*, issued by the Federal Accounting Standards Advisory Board, October 6, 2011.
- Technical Release 2: *Determining Probable and Reasonably Estimable for Environmental Liabilities in the Federal Government*, Federal Financial Accounting and Auditing, issued by the Accounting and Auditing Policy Committee (AAPC).

Additional guidance developed to facilitate environmental liabilities identification, cost estimating and reporting requirements include:

- *Changes to Environmental and Disposal Liability (EDL) module*, Director, Office of Financial Management (PFM) and Director, Office of Environmental Policy and Compliance (OEPC), dated August 9, 2010.
- *Department of the Interior Asbestos Liability Reporting Methodology and Guidance,* May 2014.
- *Environmental and Disposal Liabilities and Implementation of the Environmental Database System,* Assistant Secretary—Policy, Management, and Budget (PMB), dated July 3, 2006.
- *Environmental Cleanup Liabilities and Materials Used in Facility Construction,* Director, Office of Financial Management (PFM) and Director, Office of Environmental Policy and Compliance (OEPC), dated October 1, 2003.
- Financial Management Memorandum 2013-023 *Asbestos-Related Cleanup Costs Associated with Real Property*
- *Inflation Factors for Environmental and Disposal Liabilities,* Director, Office of Financial Management (PFM) and Director, Office of Environmental Policy and Compliance (OEPC), issued annually.
- *Pre-Acquisition Environmental Assessment Guidance for Federal Land Transactions (Final),* Director, Office of Environmental Policy and Compliance, Environmental

Compliance Memorandum (ECM) 10-2, dated June 16, 2010.

- *Statement of Principles for Collaborative Decision Making at Mixed Ownerships Sites,* Director, Office of Environmental Policy and Compliance, Environmental Compliance Memorandum (ECM) 07-3, dated October 23, 2007.
- *Statement of Principles for Collaborative Decision Making for Cleanup of Formerly Used Defense Sites on Federal Lands,* Director, Office of Environmental Policy and Compliance, Environmental Compliance Memorandum (ECM) 07-2, dated May 1, 2007.
- *Updating Database of Sites with Potential Environmental Liability,* Assistant Secretary – Policy, Management and Budget (PMB), dated June 20, 2005.

Departmental financial guidance can be found on the Office of Financial Management's Policy public web page. Departmental environmental policies can be found on OEPC's public website at *https://www.doi.gov/oepc.*

1.2 Definitions

Various terms have been used to refer to environmental and disposal liabilities including environmental contingent liabilities, environmental contaminant liabilities, and environmental cleanup liabilities, all using the acronym ECL. As of fiscal year 2006, the Department uses the terminology Environmental and Disposal Liability (EDL) to be consistent with the terminology used in the Department's annual Agency Financial Report (AFR). The following is a list of commonly used terms found in environmental and disposal liability estimating and reporting guidances:

- **Abandoned Mine Lands (AML)** - Hard rock mines and coal mines abandoned before January 1, 1981 and August 3, 1977, respectively, located on DOI managed lands that are contaminated by extraction, beneficiation, or processing of ores and minerals.

- **Asbestos-containing Materials (ACM) -** Building materials containing greater than one percent (>1%) asbestos.

- **Asbestos Cleanup Liabilities -** Pertains to the liability for the cleanup of asbestos where there has been no associated release of asbestos to the environment and includes the cost of identifying, removing, containing, and/or disposing of ACM from property, plant, or equipment at permanent or temporary closure or shutdown of associated property, plant, and equipment.

- **Bureau** – Division within the Department of the Interior. The Department of the Interior contains various bureaus and offices. Though the term "bureau" is used throughout the document, this guidance also pertains to offices, as applicable.

- **Balance Sheet** - Balance Sheet is a statement of the financial position of an entity that lists the assets, liabilities, and net position at a particular point in time.

- **Capital Funds –** Appropriation set aside for specific capital projects. Capital funds are no-year or multi-year funds, i.e. they are available for obligation by the agency for an

indefinite period of time or over multiple fiscal years.

- **Contaminated Site** - The terms "contaminated" and "contamination" used throughout this Handbook refer to releases of hazardous substances, petroleum, pollutant, or other contaminants that may pose a threat to human health or the environment. Contaminated sites include any lands or resources managed by DOI that are adversely affected by a release or threatened release of a hazardous substance, petroleum, pollutant, or contaminant, as defined under Federal or State laws.

- **Contingency** - An existing condition, situation, or set of circumstances *involving uncertainty* as to a possible gain or loss that will ultimately occur or fail to occur. Per FASAB standards, only loss contingencies are reported.

- **Cost-to-Complete (CTC) -** The total future cost of a cleanup activity, including studies, remediation, and long-term monitoring.

- **Department Land -** Land under a Department of the Interior bureau's jurisdiction, custody, or control including soil, surface water, groundwater, and sediments. For purposes of this definition, land that the United States holds in trust for Indian tribes or individual Indians is not considered under the jurisdiction, custody, or control of a Department of the Interior bureau or office because of its trust status.

- **Defense Environmental Restoration Program (DERP)** – Program under the Department of Defense (DoD) in which DoD conducts cleanup at active installations, Formerly Used Defense Sites (FUDS), and Base Realignment and Closure (BRAC) locations.

- **Disclosure** - Information presented in notes that is considered an integral part of the basic financial statements. A disclosure should include the nature of the contingency and an estimate of the total range of potential liability. Disclosed EDLs are not included in the calculation of the recognized EDL amount.

- **Due Care** - The process followed by a bureau or office to use reasonable effort to examine a potential EDL site to identify the presence or likely presence of contamination at concentrations significant enough to require further study or cleanup. The Due Care process must be performed by or under the oversight of an environmental professional.

- **EDL Database –** A custom-built IT system designed to record and track environmental remediation liabilities throughout the Department.

- **Environmental and Disposal Liability (EDL)** - An anticipated future outflow or other sacrifice of resources where, based on the results of Due Care, further study or cleanup of contamination is warranted due to past or current operations. The Department's EDLs comprise two types of liability: environmental remediation liabilities and asbestos cleanup liabilities. These liabilities are reported as EDLs on the Balance Sheet but are disclosed separately in the note to the financial statements on the Department's Agency Financial Report (AFR).

- **Environmental Remediation Liability** – Liability created by a release of contaminants to the environment. Actions to investigate, manage, and cleanup these contaminants represent a future outflow of bureau or departmental resources.

- **Environmental Professional -** Someone who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases of hazardous substances or petroleum on, at, or to Department lands or facilities.

  An environmental professional must have one or more of the following:

  a. a current Professional Engineer's or Professional Geologist's license or registration and three years of relevant full-time work experience;
  b. a state- or tribal-issued registration, certification or license and three years of relevant full-time work experience;
  c. a Baccalaureate degree or higher in science or engineering and five years of relevant full-time work experience; or
  d. ten years of relevant full-time work experience.

- **Formerly Used Defense Sites** Program (FUDS) - Under the FUDS Program, cleanup of environmental contamination at properties formerly owned, leased, possessed, or used by the military services (Army, Navy, Air Force, or other Defense agencies) prior to 1986, is the responsibility of the Department of Defense. The Army is the Department of Defense executive agent for FUDS, and the U.S. Army Corps of Engineers is responsible for carrying out the program.

- **Future** – As used in this handbook, this term refers to a period beyond the current Fiscal Year.

- **Generally Accepted Accounting Principles –** A widely accepted set of rules, conventions, standards, and procedures for reporting financial information. For the Federal Government, these are established by the Federal Accounting Standards Advisory Board (FASAB) and include Statement of Federal Financial Accounting Concepts (SFFAC), Statements of Federal Financial Accounting Standards (SFFAS), Interpretations, Technical Bulletins, Technical Releases, and Implementation Guidances.

- **Government Acknowledged Financial Responsibility -** When the bureau did not cause or contribute to the contamination and it is not otherwise liable for cleanup costs, but the bureau chooses to accept financial responsibility to protect public health, welfare, or the environment, the cleanup costs are considered government acknowledged and are disclosed only.

- **Hazardous Substance** - The term "hazardous substance" used throughout this Handbook refers to an element, compound, mixture, solution, or substance that is defined as a hazardous substance under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

- **Liability -** For federal financial accounting purposes, a liability is a probable and measurable future outflow or other sacrifice of bureau or departmental resources (e.g., costs) as a result of past events or transactions. This definition is provided in federal accounting standards. Reporting a financial liability does not imply or infer acceptance of legal liability.

- **Liability Status -** The likelihood of *probable*, *reasonably possible*, or *remote* that the bureau will be required to incur a future outflow or other sacrifice of resources for some or all of the costs of a study, monitoring, or cleanup at an EDL site. The determination of the likelihood is based on reasonable judgment and does not imply or infer acceptance of legal liability.

- **Materiality/Material Change –** For purposes of this handbook, a change in a site's cost estimate of 10% or more between reporting periods.

- **Military Legacy Site –** A property that has a battlefield or formerly operated by the Department of Defense. Contaminated military legacy sites may become part of the FUDS program, if they qualify.

- **O&M Funds** – Annual appropriations used for normal day-to-day operation and maintenance of a site or facility. O&M funds are available for one year for new obligations.

- **O&M Phase (pertaining to CERCLA) –** The phase of a CERCLA cleanup operation after the Removal or Remedial Action phase.

- **O&M (pertaining to RCRA) –** An inspection activity carried out in connection with a RCRA permit.

- **Probable** - The likelihood of a future outflow or other sacrifice of resources (e.g., costs) that is more likely than not to occur.

- **Reasonably Possible -** The likelihood of a future outflow or other sacrifice of resources (e.g., costs) that is more than *remote* but less than *probable.*

- **Recognition** - Reporting a dollar amount on the face of the basic financial statements. Only Probable EDLs are recognized as a liability on the financial statements.

- **Record of Decision** – Decision that documents the remedial action plan for a site or location.

- **Release** – Occurs when a hazardous substance, pollutant, contaminant or petroleum enters the environment.

- **Remedial Action -** The actual construction or implementation phase of site cleanup. The remedial action is based on the specifications described in the Record of Decision**.**

- **Remote –** The likelihood of a future outflow or other sacrifice of resources (e.g., costs) that is slight (less than *reasonably possible*).

- **Removal –** Complete removal of contaminant from environmental medium (e.g., ground water, soil).

- **Report** - Estimated costs recognized on the federal financial statements or disclosed in the notes to the financial statement.

1.3 Responsibilities

Responsibilities to identify and report EDLs are shared by environmental program management, asset management, and the equivalent-level accounting personnel at both the bureau and Departmental levels.

At the bureau level: The bureau-level environmental program management is responsible for identifying EDL sites, generating and reviewing cleanup cost estimates and maintaining the associated documentation on a site-by-site basis. Bureau asset management is responsible for data quality in the Financial and Business Management System (FBMS) for estimating the asbestos cleanup liability. The bureaus' accounting personnel are responsible for coordinating with the environmental program and asset management staff, performing a reasonableness check on the reported liability amounts, and ensuring amounts are correctly categorized as recognized or disclosed in accordance with accounting and reporting requirements.

At the Departmental level,

- OEPC is responsible for maintaining and enhancing the database used to record and track EDL sites and providing guidance to the bureaus' environmental management personnel. OEPC is also responsible for maintaining and updating the asbestos cost factor database.
- OEPC is responsible for coordinating with financial management and asset management communities to develop, maintain, and update EDL-related policies and guidance, including this handbook.
- PAM is responsible for providing guidance to bureau asset management staffs to ensure asset data quality in FBMS.
- PFM is responsible for coordinating with OEPC, PAM, and the bureaus' accounting personnel, consolidating the individual bureau information, and ensuring that EDLs are reported in accordance with reporting requirements.
- The Business Integration Office (BIO) is responsible for uploading and maintaining the asbestos cost factors and the average survey cost in FBMS.

2 Environmental Remediation Liabilities Identification

Contamination can occur from past or current operations such as landfills; treatment, storage, or disposal facilities; maintenance operation yards; motor pools; firing ranges; mine and mill sites; or unsanctioned activities. Departmental bureaus are required to routinely attempt to identify contamination on their lands and report that information to the responsible officials and the Department.

However, in many circumstances Due Care activities are necessary to confirm the presence of contamination at suspect areas to determine whether further action is warranted. For example, illegal dumping of solid waste does not in and of itself mean an area is contaminated. An environmental professional must assess the area. If the area is declared, characteristic, listed, or contains a mixture of hazardous waste or petroleum products, it will become an EDL. Asbestos cleanup liabilities are identified and estimated according to a different protocol, outlined in Section 7.

Currently, each bureau implements a process for identifying environmental remediation liabilities. Because each bureau has a different mission and a different organizational structure, the Department recognizes that processes and resources will vary. However, in order to ensure that all bureaus identify and report EDLs consistently, bureau-specific environmental remediation liabilities identification processes will meet, at a minimum, the following criteria:

- A site will not be identified as an environmental liability until environmental Due Care has been conducted. If the Due Care results indicate that further action (study or cleanup) representing a future outflow of resources is warranted, the site will be identified as an EDL (see Section 2.3).

- Contaminated properties formerly managed or occupied by the bureaus may also create environmental liability for the Department. Costs for cleanup of these sites may be shared with the current managers of the property or with other potentially responsible parties.

- There are a number of DOI sites that were formerly managed and contaminated by other Federal agencies and subsequently transferred to the Department. Costs for cleanup of these sites may be shared with these earlier managers of the property.

The Department manages and utilizes many properties where training or military-related activities were conducted by Department of Defense (DoD) components. These are termed Military Legacy Sites and include Formerly Used Defense Sites (FUDS), Military Munitions Response Program (MMRP) sites, and Installation Restoration Program (IRP) sites. Some of these properties contain EDL sites. In some cases, but not all, the sites are being cleaned up under the Defense Environmental Restoration Program (DERP), as part of the Formerly Used Defense Sites (FUDS) Program or Active Component MMR and IR Programs and should be classified as remote. If the DOI expends its resources to address DERP eligible sites, whether through a formal agreement with DOD for sharing cleanup costs, or when costs for oversight, coordination, monitoring, or liaison of cleanups will incur, the DOI must enter and track the site

in the EDL database as probable. For those cases where the cost to address site contamination is not being fully paid by the DERP, the Department should enter a probable EDL and the estimated cost to be borne by DOI.

In general, environmental compliance and operation and maintenance (O & M) activities are not environmental remediation liabilities. Examples of activities that are not environmental remediation liabilities include:

- Permit requirements such as monitoring and reporting under the Resource Conservation and Recovery Act (RCRA), National Pollutant Discharge Elimination System (NPDES), or other permits
- Indoor air quality corrective measures, except actions required as part of a cleanup such as volatile contamination in buildings associated with leaking underground storage tanks (USTs) or groundwater plumes
- Mitigation of naturally occurring substances (e.g., radon)
- Environmental audits
- Water and sewage systems maintenance and monitoring
- Routine disposal of hazardous materials, chemicals, or waste or federal personal property as defined by the General Services Administration, e.g., computers
- UST/above ground storage tank (AST) operation costs, e.g., installation of leak detectors, upgrading fill pipes, tank replacements, etc.
- Physical safety hazards, e.g., mine audits
- Physical parameter criteria, e.g., surface water turbidity, dissolved oxygen, biological oxygen demand, and pH

2.1 Due Care

The process for identifying potential EDL sites will vary among bureaus because of different organizational structures, operations, geographic areas, and resources. However, each bureau shall perform property/facility inspections, and conduct land reconnaissance.

Each bureau maintains a property/facility inventory. Property/facility inventories will be routinely inspected and evaluated to identify areas where releases of hazardous substances or petroleum may have occurred. If physical conditions indicate a potential release of hazardous substances or petroleum, appropriate bureau officials will be notified, and steps will be taken to ensure that any environmental liabilities are identified and reported.

Additionally, bureau personnel routinely conduct mission-related work that involves reconnaissance of the land within their jurisdiction, custody, or control (such as mine and public access areas inspections). During these observations, physical indicators of potential releases of hazardous substance or petroleum will be noted. These physical indicators may include, but are not limited to, stained soil, solvent or petroleum odor, scorched earth, discolored/stressed vegetation, illegal dumps, dead animals, discolored water in a stream, surface water sheen, etc. Prior to conducting any additional environmental activities, the bureau should verify that the abnormal site conditions are on land within their jurisdiction, custody, or control.

Local bureau officials will determine if the abnormal physical condition falls under one of the

following scenarios:

- the release can be further evaluated or cleaned up in the current fiscal year (e.g., incidental spill);
- additional support including technical services or site-specific funding is needed for Due Care to be conducted to determine if a release has occurred that warrants further study or cleanup;
- if the PA/SI is being conducted as Due Care for the site, then the cost of the PA/SI is not reported in EDL;

Until a site is determined to be an environmental remediation liability site, appropriated O&M funds should be used for the evaluation and/or cleanup of the site and the costs incurred will be recorded as current operating expenses.

If additional support is required for Due Care to be conducted, associated costs are not recorded as EDLs because a determination has not been made as to the presence or suspected presence of contamination. Each bureau is responsible for identifying and tracking its potential EDLs. Appendix 1 provides a sample Due Care worksheet that can be used by bureaus when conducting Due Care.

The release or suspected presence of hazardous substances or petroleum at a site must be confirmed through Due Care by or under the oversight of an environmental professional with the appropriate credentials to properly make this determination. Activities conducted during the Due Care process may include, but are not limited to:

- Review of recorded chain-of-title documents (including restrictions, covenants and any possible liens) and good faith inquiry and investigation into prior uses of the property;
- Investigation of aerial or satellite photographs that may reflect prior uses, areas of distressed vegetation, or changing population centers;
- Inquiry into records that are available from federal, state, tribal, and/or local jurisdictions that show whether there has been a release or suspected release of hazardous substances or petroleum on the property (and adjacent property that could impact the bureau's property);
- Investigation of complaints regarding abnormal health conditions or concerns raised by the public;
- Visual site inspection of any portions of the property where contamination by hazardous substances or petroleum is known or suspected;
- Collection and analysis of a limited number of samples; and
- Documentation of findings.

Not every activity identified above must be conducted under the Due Care process. The number and type of activities necessary to appropriately assess the site will be determined by or under the oversight of the environmental professional. If the results of Due Care indicate that it is likely that contamination is present and requires further study or future cleanup, and a future outflow of resources will be required, the site will become an EDL. If, however, contamination is not present, the level of contamination is not significant enough to warrant study or cleanup, or cleanup is warranted but the volume is not significant and can be accomplished using existing

O&M funds, then the site is not an environmental remediation liability. Figure 1 provides a general flow of the Due Care decision process. The date and results of the Due Care activities conducted and actions performed will be documented and retained in bureau files.

2.2 Deconstruction and Renovation Activities

Many building materials historically used in the construction or renovation of Department facilities contained hazardous substances, e.g., asbestos, paint containing heavy metals, and/or PCBs. Undisturbed building materials containing hazardous substances that are in good condition (e.g., encapsulated asbestos or firmly fixed lead paint) do not pose a health risk. They are not subject to cleanup under applicable environmental laws. The generally recognized best management practice for such materials is to maintain a management plan that addresses maintenance and abatement activities. If released to the environment, these contaminants would require cleanup and be identified as EDLs.

However, the Federal Accounting Standards Advisory Board (FASAB) established a requirement in 2006 for federal entities to account for all future asbestos-related cleanup and disposal costs as an environmental liability regardless of the current physical condition of the asbestos containing material (ACM) (Technical Bulletin 2006-1). The Department considers asbestos that has been released to the environment a release under CERCLA or RCRA and therefore an environmental remediation liability. ACM that is in good physical condition (i.e., no release of asbestos to the environment) is considered an asbestos cleanup liability, a subset of EDLs. The Department has developed separate asbestos cleanup liability guidance that provides bureaus with a methodology for calculating, documenting and reporting their asbestos cleanup liability. This methodology is described in section 7.

2.3 Environmental Remediation Liabilities

The process that the Department and its bureaus will use to identify and report an EDL is discussed in the following pages. A site will be identified as an EDL if the results of the Due Care indicate that a known or suspected release of hazardous substances or petroleum to the environment has occurred that warrants further study or cleanup beyond the current fiscal year.

As discussed below, the date and results of the Due Care process and any action performed will be documented and retained in bureau files. If it is determined that the site meets the criteria of an EDL, it will be tracked in the Department's EDL database. If however, the site does not meet the criteria of an EDL, no further action is required.

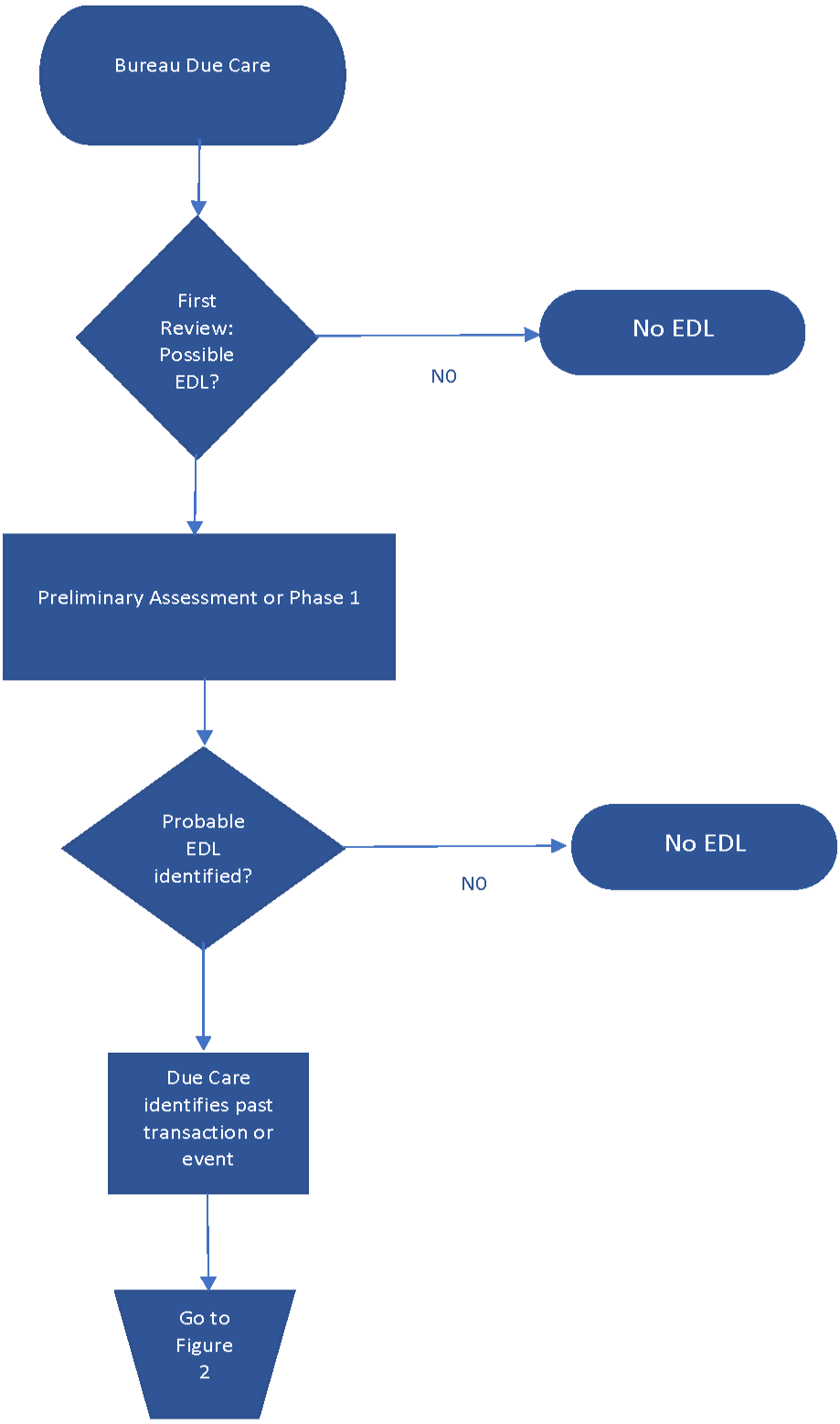

Figure 1 Due Care Process

3 Liability Status

Once a site is identified as an EDL, its liability status is determined. An EDL site's liability status is the likelihood that the bureau will incur a future outflow or other sacrifice of resources (costs) for some or all of the study or cleanup at an EDL site. The likelihood classifications are *probable* (P), *reasonably possible* (RP), or *remote* (R). The existence of an EDL or the actual expenditure of DOI funds for cleanup do not imply the acceptance of a legal liability.

Often, the Department and its bureaus incur costs to study or clean up contamination at an EDL site to protect public health and the environment even though a determination regarding the Department's or bureaus' legal liability has not been decided. It is departmental policy to aggressively pursue third parties to recover or avoid costs. The EDL liability status, as used here for federal financial accounting purposes, is determined as a current cost estimate for planned cleanup activities without consideration of potential cost recovery unless an agreement, order, or other legally binding document is in effect. If all costs to the bureau or Department are borne by a third party, then the liability code is "remote."

Bureau environmental managers and accountants should consult with the Office of the Solicitor to reach conclusions on the status of a legally binding agreement, order, or other third-party commitment to pay or perform work. If the site is being addressed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the bureau should contact the Environmental Compliance and Response Branch in the Office of the Solicitor's Division of Land and Water Resources in Washington, D.C. For all other sites, the bureau should contact the appropriate Regional Solicitor's Office. Contact information can be found at https://www.doi.gov/solicitor/.

3.1 Probable

An environmental liability has a liability status of *probable* (a future outflow or other sacrifice of resources is likely to occur) only when a determination has been made (in consultation with the Office of the Solicitor, if necessary) that at least one of the following is true:

a. The bureau caused or contributed to the contamination and cleanup is warranted.
b. The outflow of resources is expected pursuant to a duty or responsibility pertaining to statute or regulation, including enabling legislation for the Department or bureau.
c. The bureau has agreed to assume responsibility for cleanup costs in an interagency agreement, settlement agreement, or similar legally binding document.
d. The bureau is required to incur cleanup costs under a court decision or administrative order. These costs may include bureau expenses for monitoring, supervising, or overseeing work performed by other entities.

In general, the Department is responsible for cleanup of all contamination on DOI land and assets as part of our over-arching role as stewards of the nation's lands and heritage. If a determination has not been made regarding whether any of the above criteria for *probable* apply

(a through d), but a cleanup action is planned, the expected future outflow of resources (costs) is *probable.* If a legally binding agreement, order, or other document is issued subsequent to the initiation of the cleanup action, the expected future outflow of resources (estimated costs) will be adjusted based on the requirements of the legally binding document.

3.2 Reasonably Possible

An EDL has a liability status of *reasonably possible* if none of the criteria for *probable* is met (Section 3.1), but the likelihood that a future outflow or other sacrifice of resources is greater than *remote*. A decision whether to classify an EDL as *reasonably possible* rather than *probable* may require knowing more about the type of contamination, site conditions, site history, and other technical factors to make the determination that a future outflow of resources is certain or not. *Reasonably possible* liabilities are disclosed in notes to the financial statement rather than recognized as an environmental remediation liability.

The *reasonably possible* status will only apply in limited situations. Such cases might include:

- A property divested under the provisions of CERCLA §120(h), wherein the property is no longer in the Federal inventory, but a possible need for remediation of existing contamination at government expense may continue for some period into the future.
- Knowledge of conditions at the site is incomplete, but there is sufficient evidence of a release to make the likelihood of a future outflow of resources greater than *remote*.
- Government-acknowledged financial responsibilities.

Government-acknowledged financial responsibilities do not meet the criteria required to be accrued as an EDL liability (i.e., a *probable* EDL*)*. A government acknowledged financial responsibility occurs when the Department or its bureaus **did not** cause or contribute to the contamination and it **is not otherwise liable** for the cleanup costs under current law or statute, but the bureau chooses to accept financial responsibility to protect public health, welfare, or the environment. Examples of government acknowledged EDLs include cleanup actions on lands held in trust, cleanups associated with natural disasters on non-bureau managed land, and cleanup costs associated with Abandoned Mine Lands (AMLs). The Department does not record an EDL liability for government acknowledged sites. Instead, the Department reports the future cleanup costs for government acknowledged sites as *reasonably possible* and discloses the costs.

AMLs are government acknowledged sites as the bureau did not cause or contribute to the contamination. AMLs are defined as areas located on public lands managed by the Department or its bureaus impacted by mining or milling activities conducted under the 1872 Mining Law and that have been abandoned or left inactive by the entities that conducted the activities. The AMLs can have site contamination present such as mill tailings or acid mine drainage. If, however, a bureau becomes legally required to clean up an AML site that was previously considered government acknowledged (*reasonably possible)* because of a legally binding agreement, court decision, or administrative order, the EDL's liability status will change to *probable.*

3.3 Remote

An EDL site has a liability status of *remote* if a determination has been made that none of the criteria for *probable* apply (Section 3.1) and the likelihood that a future outflow or other sacrifice of resources will be required is slight (less than *reasonably possible*).

Examples of *remote* environmental remediation liabilities include:

- If all estimable future costs are the responsibility of a third party, the site's liability code is "remote."
- Locations where contamination is unlikely to adversely affect human health or pose an unacceptable risk to the environment, i.e., cleanup is not warranted due to low concentrations or *de minimis* quantities. A decision to classify a site as remote based on these criteria must be documented by the bureau. If the reason for the "remote" liability status is due to geographic remoteness or the inability to assess the site, this must be documented as well.
- Additionally, the site should be listed as "remote" if the site has been remediated but documentation such as closure letter from the regulating agency has not been received.
- If the bureaus, working with SOL, have held negotiations and have reached a settlement agreement with a responsible party to pay and conduct a clean-up on DOI lands, then this would be a remote site.

4 Environmental Remediation Liabilities Cost Estimating

If an EDL has a liability status of *probable* or *reasonably possible*, every effort should be made to develop a Cost-to-Complete (CTC) estimate, if it is reasonable to do so. The environmental remediation liability amount will be recognized or disclosed in financial statements based on the liability status (Section 3.0). If the total cleanup cost is not reasonably estimable as of the financial statement date, the portion of the cleanup cost that is reasonably estimable (such as the cost to study) should be reported. If no portion of the cleanup cost is reasonably estimable, the bureau should document the reasons that a cost estimate cannot be made at this time. However, this situation should only be applicable if the EDL site is a newly identified site or new information becomes available about an existing EDL site, but there is insufficient time between identification and reporting to develop a CTC estimate. The Department requires a cost estimate (at least a portion of the total cost estimate, e.g., cost to study) for *probable* and *reasonably possible* EDL sites within one year of identification as EDL sites or new information on existing sites. The Department does not require cost estimates to be developed for EDL sites that have a liability status of *remote*.

4.1 Reasonably Estimable

Various key factors (tests) should be considered in determining whether future cleanup costs can be reasonably estimated. The factors are:

1. Completion of an Engineering Evaluation/Cost Analysis (EE/CA), Remedial Investigation/Feasibility Study (RI/FS), Corrective Measures Study (CMS), or Other Study,
2. Experience with a Similar Site and/or Conditions, and
3. Availability of the Cleanup Technology.

Cost estimates should be based on the application of professional environmental engineering knowledge using all relevant information and meaningful site comparisons. Estimates should be reproducible and documentation supporting the estimates should be maintained. Estimates will also be uploaded and maintained in the EDL Database.

The three key factors discussed next are:

1. **Completion of EE/CA, RI/FS, CMS, or Other Study**: The first test in determining whether future costs are reasonably estimable is to ascertain whether there is a completed study upon which to base an estimate. For example, if an EE/CA, RI/FS, CMS, or other investigation study has been completed for a particular site, these studies would form the basis upon which to begin estimating the cleanup costs.

   The fact that a site does not have a comprehensive study completed does not exempt the bureau from making a best effort to estimate the cleanup costs for financial statement purposes, or for reporting a cost estimate for that portion of its obligation (or potential obligation) that can be estimated (see No. 2. below). The Department recognizes that if a comprehensive study has not been completed, the quality of the cleanup cost estimate will be less reliable than if a comprehensive study has been completed. Cleanup cost estimates for sites that have not completed a comprehensive study would necessarily be based on a set of assumptions that will be subject to change. Therefore, the level of required documentation for cleanup cost estimates where a comprehensive study has not been completed will be much less than cleanup cost estimates for environmental

remediation liabilities where a comprehensive study has been completed.

If the results of the study indicate that no contamination exists or the bureau determines that no further action is warranted, then an environmental remediation liability does not exist and the environmental remediation liability will be archived from the Department's EDL inventory. The justification for removing the EDL from the inventory must be documented. Note that the EDL database provides two different methods for eliminating a site from the inventory (removal and deletion). Removing an environmental remediation liability (e.g., cleanup complete or no further action warranted) retains all history of the site. Deleting an environmental remediation liability removes all traces of the site from the database. Deletion of a site should only occur in instances of correcting the data entry errors or duplicate site entry.

2. **Experience with Similar Site and/or Conditions**: If no study has been completed, the next step is to determine whether a site appears to be similar to any other site or condition where experience has been gained through either a completed study or actual cleanup. Similar sites or conditions used for developing a cost estimate can be associated with other federal agencies or non-federal entities (public or private).

   If experience has been gained at a similar site or condition (through actual cleanup and/or a completed study), the environmental remediation liability cost estimate for the site could be based on similar experiences or conditions. The quality of a cost estimate based on a similar site may be very different from the actual cleanup costs if the actual site conditions are different than those of a similar site. Future studies will result in improved estimates as site-specific conditions become known.

   If no actual remediation or study costs of a similar site and/or condition exist, but cost estimates have been developed for similar sites, these similar site-cost estimates may be used. A cost estimate developed for a similar site type, such as a firing range or landfill, with comparable assumptions, such as climate, size, contaminants, etc. can be used as a basis. These sites can form the basis for a single cost estimate or a range of cost estimates developed for a similar site. A range of similar site type cleanup cost estimates would capture the variability of the unknown site conditions until site-specific information is obtained.

3. **Availability of a Cleanup Technology**: If a study has been completed, or a bureau or other agency has experience with a similar site and/or condition as noted above, the next test is whether there is a technology available to achieve total cleanup. If no technology exists to achieve complete cleanup, then total cleanup costs would not be reasonably estimable. However, the bureau would be required to report the costs to contain the contamination and any other relevant costs, such as costs of future studies, treatment, or monitoring that will be implemented to minimize and control the contamination. For example, the total cleanup of certain volatiles in groundwater is often difficult to achieve. However, partial cleanup actions are implemented such as removal of the primary source of contamination, groundwater extraction and treatment, and long-term groundwater monitoring to ensure capture or natural attenuation is occurring. The costs of these actions are reasonably estimable and would be recorded. The bureau would calculate an amount to be recorded based on the type and length of containment required. If a record of decision (ROD) or

other pertinent decision document has not been written, and therefore, a length of time has not been determined, a reasonable length of time based on similar conditions should be assumed in the cost estimate.

If a cleanup technology is available, then cleanup costs are reasonably estimable, and the bureau would record the best estimate at the current cost. If no amount within a range of estimates is a better estimate than any other amount, the bureau should record a range of amounts. If the estimate is based on similar site criteria, the agency would also include the anticipated cost of an EE/CA, RI/FS, CMS or other study, if required.

If management has not determined what cleanup action should be taken for an active contaminated site (current facility or operations), the cost of cleaning up the containment at the end of the facility's useful life, plus the cost of a study, if not yet done, should be considered as the low end of the range of future estimated cleanup costs.

See Figure 3 for a general flow of the cost to remediate, contain or study decision.

4.2 Elements of the Cost Estimate

Environmental remediation liability CTC estimates should not include O&M costs associated with routine operations at active sites or landfills. For example, if a bureau was operating an active landfill, the O&M costs associated with the landfill's routine operations would not be considered an environmental remediation liability. Additionally, environmental sampling, analysis and reporting required under a RCRA permit during operation would not be an environmental remediation liability.

Environmental remediation liability CTC estimates should include any cleanup activity or portion of an activity that has not yet been completed, such as:

- Studies, plans, designs, removal activities, cleanup activities, and cleanup operations necessary to comply with applicable legal and regulatory requirements, and the costs of contractors, engineers, and consultants. Only the O&M costs associated with actions to close the operation in accordance with environmental regulatory requirements should be included. Additionally, O&M costs associated with an environmental cleanup action or the closure of an inactive site, such as the O&M associated with a groundwater treatment system, would be an environmental liability.

- Machinery and equipment dedicated to a response action (removal or remedial) that do not have alternative uses, and their associated operating and maintenance costs.

- Compensation and benefits of government personnel that devote significant time to an environmental cleanup effort.

- Revegetation activities conducted as part of an environmental cleanup (rather than restoration that is part of a Natural Resource Damage Assessment and Restoration action).

- Interim cleanups such as removal of lead-contaminated soil to convert a firing range to a 'green' range.

- Long-term monitoring (LTM) associated with a response (e.g., long term monitoring for natural attenuation of contaminants in groundwater).

- Costs for oversight, coordination, monitoring, or liaison of cleanups being conducted on bureau property by other entities. For instance, cleanups being conducted by the FUDS program or by Potentially Responsible Parties on bureau property may create probable and reasonably estimable future outlays for the bureau to participate in the cleanup process, for instance in an oversight role. Such costs should be included in EDLs if reasonably estimable.

4.3 Development of Cleanup Actions Cost Estimates

The Department requires bureaus to develop a Cost-to-Complete estimate for *probable* and *reasonably possible* environmental remediation liabilities within one fiscal year of identification. If a CTC estimate cannot be developed (possibly because a study has not been completed and insufficient information is available regarding the type or extent of contamination), the bureaus are required to develop a cost estimate for the portion of the cleanup that is known and is reasonably estimable, such as the cost to study or interim cleanup activities. Figure 2 provides a general flow for determining the level of estimate required for each site.

4.4 Cost-to-Complete (CTC) Estimates

Estimates should be calculated for the total site cleanup cost, the CTC, or for a range of the total cleanup costs to the extent practicable. A range of the CTC would be reported if site conditions have not yet been fully determined, such as the extent and/or nature of contamination or if several cleanup alternatives are possible and a preferred alternative has not been selected. Reporting a range of costs allows the estimator to capture the uncertainty inherent when predicting future cleanup costs early in the cleanup process. The assumptions used to develop the low and high end of the cost estimate range must be documented such that the estimate is reproducible and easy to revise as new site information becomes available.

For sites regulated under CERCLA that have one or more potentially responsible parties (PRPs), but the bureau cleanup financial responsibilities have not yet been legally documented (under an agreement or other legally-binding documents), the bureau can develop a cost range that reflects the bureau's likely financial liability, such as oversight of the cleanup or long-term monitoring, on the low end of the range, and the total cleanup costs on the high end of the range. The assumptions used for creating such a range should be documented.

If the preferred cleanup alternative has been selected, the CTC estimate will be developed based on the preferred alternative as documented in the proposed plan, ROD, or other decision document. If the preferred alternative has not been selected, but a CTC estimate can be developed based on professional engineering judgment and similarities with other site conditions, the bureau should develop a CTC estimate though uncertainty exists. If several alternatives are possible, the cost estimate can be based on an assumed cleanup action, or cost estimates may be developed for different possible cleanup actions. The different cleanup actions

used for developing the cost estimate range and the assumptions used should be documented. Bureaus are encouraged to develop CTC estimates even if the preferred alternative has not been selected. These cost estimates will be used for reporting EDL data on financial statements, and facilitate project and program management activities. They should not be misconstrued as a pre-decisional selection of the preferred alternative. As cost estimates are confidential, Department and bureau personnel and auditors shall not disclose this information to external parties without consultation with the Office of the Solicitor or other appropriate parties.

4.5 Long Term Monitoring

Long Term Monitoring (LTM) is an important aspect of the total Cost-to-Complete calculation for EDLs. At the time the cost estimate is prepared, a best estimate of the duration of LTM and the annual cost should be determined. The annual cost for the duration of the LTM is summed to calculate the total cost of LTM in current year dollars. If the duration of LTM is anticipated to extend beyond 30 years, LTM should be calculated for 30 years only. As LTM is conducted in the future, the estimate for LTM will remain the sum of 30 years of cost until the last year of the 30-year window reaches the anticipated end of monitoring. In many cases the LTM calculation will require adjustment based on new conditions, regulator input, or other factors.

The duration of LTM is shown in the Table below. For this example, the ***Estimated Duration of LTM equals 32 Years.***

EDL Reporting Year	LTM Estimate
1	30 x annual cost
2	30 x annual cost
3	29 x annual cost
4	28 x annual cost
5	27 x annual cost
6….32	26 x annual cost….0

4.6 Interim Cleanup Action Cost Estimates

If the total cleanup cost is not currently reasonably estimable (possibly because no studies have been completed) cost estimates should be developed for those portions of the total cleanup cost, such as interim cleanup activities, that are known and reasonably estimable. Interim cleanup activities for which a cost is reasonably estimable, though the total cleanup cost is not, include site studies such as a time-critical or non-time critical removal action, etc.; or monitoring activities (conducted as part of a study) if a cleanup technology is not available. Cost estimates for interim cleanup activities should be recorded under “study” in the EDL database.

4.7 Quantification of the Cost Estimate

Site-specific information must be considered when developing cost estimates. Cost estimates can be calculated using engineering estimates or cost models. Cost estimates are subject to audit, and therefore, adequate documentation identifying data sources, estimating method, rationale used, and assumptions must be retained and readily accessible. Detailed backup materials that support the cost estimate reported must be maintained in the project files (see Section 4.9, Cost Estimate Documentation).

If a cost model is used for estimating environmental remediation liability costs, the model must be accredited for use in preparing Federal government liability cleanup cost estimates.

Cost data can be obtained from a variety of sources:

- Cost estimating guides/references (see Appendix 2)
- Cleanup action vendors or contractor quotes
- Professional judgment based on experience with similar projects
- Cost estimating software/databases (e.g., Remedial Action Cost Engineering and Requirements (RACER)

Cost estimating guides or references, e.g., unit price books, can provide costs for a wide variety of construction activities, including those related to remedial actions. Some guides are specifically tailored to estimate costs for environmental remediation projects. Cost data in these references are sometimes broken down into labor, equipment, and material categories, and may or may not include contractor markups. Generally, each cost is associated with a specific labor and equipment crew, and production rate. Costs are typically provided on a national average basis for the year of publication of the reference.

Quotes from cleanup action vendors or construction contractors can provide costs that are more site-specific in nature than costs taken from standard guides and references. These quotes usually include contractor markups and are usually provided as a total cost rather than categorized as labor, equipment, or materials. If possible, more than one vendor quote should be obtained.

Quotes from multiple sources can be averaged, or the highest quote can be used in the cost estimate if the collected quotes seem to be at the low end of the industry range. Vendors or contractors can also be an important source of design-related information, including operating capacity, production rates, operating life, and maintenance schedules that may have implications for O&M costs.

Estimates and actual costs of similar projects can also be used as a source of cost data. Professional-engineering judgment should be exercised where cost data taken from another project need to be adjusted to take into account site- or technology-specific parameters. Sources of actual cost data from government remediation projects are maintained by various federal agencies. These sources include the Historical Cost Analysis System (HCAS) *http://www.frtr.gov/ec2/ecanalysissystem.htm* and Federal Remediation Technologies Roundtable (FRTR) cost and performance reports (*http://www.frtr.gov/costperf.htm*). HCAS and the FRTR reports are two initiatives that are currently being used to collect and record treatment technology costs in a standardized format. If estimates and actual costs of similar projects are used to develop a cost estimate, the estimator should document the name of the similar site used, the similarities that justify use of this site's estimate or actual costs, and any adjustments applied (including an inflation factor if the estimate or actual cost used is not current). This information would be maintained in the project file as detailed backup material that supports the cost estimate.

Cost estimating software and databases can also be used as sources of cost data. The majority of available software tools are designed to estimate the cost for all or selected cost elements of an alternative. One such government-sponsored software tool is the RACER cost estimating system, which is sponsored by the U.S. Air Force, U.S. Army Corps of Engineers, and the Department. RACER is not required by the Department to be used to generate cost estimates; however, interested bureau users can request access to the RACER software by contacting OEPC directly. More information on RACER can be found at the following internet site: *http://www.frtr.gov/ec2/ecracersystem.htm*

RACER has been reviewed and accredited by the U.S. Air Force to provide automated, consistent, repeatable, and documented estimates for environmental cleanup of contaminated sites. The Department considers RACER appropriate to use when developing cost estimates. RACER provides a reasonable cost estimate for program funding purposes using site information available at the time the estimate is prepared (see memorandum *Updating Database of Sites with Potential Environmental Liability* from Assistant Secretary, PMB dated June 20, 2005 in Section 1.1).

4.8 Periodic Review and Update

Changes and/or updates to cleanup cost estimates are required so that periodic financial statements are fairly presented. Future costs cannot be known with certainty; estimating requires the exercise of judgment. Therefore, cost estimates should be updated when there is a material change in the status of the site, as cleanup process progresses, as more experience is acquired, and if additional information is obtained. Even if no new site information has been obtained and no cleanup activities have occurred, the current cost estimate will be reviewed at least annually and adjusted for inflation (once annually). Any changes to the cost estimate must be documented in the detailed backup materials that support the cost estimate (Section 4.9).

New or clarifying information that would affect a cost estimate may include:

- The type and extent of contaminants at the site
- The identification, number and financial position of PRPs
- The allocation of costs among PRPs based on judgments, assessments, or consent decrees
- Data regarding the remediation experiences at other sites
- Results of an EE/CA, RI/FS, CMS or other study
- Approval of a ROD or other decision document
- Refinements of the remediation plan
- The type of technology available to remediate
- Unanticipated problems identified during remediation
- The type and duration of post-closure monitoring required
- Unanticipated problems encountered during the post-closure monitoring period
- New regulations regarding the appropriate method of disposing hazardous wastes
- New laws regarding the acceptable levels of contamination
- Actual cost expended for active cleanup sites

As an example, the preferred alternative presented in the proposed plan can undergo changes as a result of public comment or new information such as additional site characterization data. Any

changes to the selected cleanup alternative should be reflected in an updated EDL cost estimate (Section 4.4).

4.9 Cost Estimate Documentation

All cost estimates will be documented such that costs and underlying assumptions are clearly presented and understood. Minimum documentation requirements include:

- Brief site history/status summary
- Any calculations used in the preparation of the estimate
- Detailed backup materials that support the cost estimate for interim cleanup activities and total site cleanup (including assumptions used)
- Cost summary of individual cleanup alternatives
- Comparative cost summary of cleanup alternatives (if costs for multiple alternatives are estimated)

The cost estimate of each cleanup action must be documented. To assist users, the Department has developed a form for the appropriate documentation of cost estimates. The EDL Cost Estimate Documentation Sheet (Appendix 3) can be used by bureaus, or they can use their own bureau-developed forms. If this form or a bureau-developed form is not used, other supporting documentation for their cost estimates must be attached. If the total cleanup cost is reasonably estimable, the estimator should fill out the portion of the Department's documentation sheet applicable to the total cleanup cost. However, if only a portion of the total cleanup cost is reasonably estimable, the applicable interim cleanup action sections of the documentation sheet should be filled out. The cost estimate should be presented by activity-based work elements and include all capital costs, all labor costs, appropriate O&M costs (see above), and any periodic costs (LTM). The detailed backup materials that demonstrate how the work element costs were derived need to be maintained with the cost estimation documentation sheet in the project files.

All environmental remediation liability cost estimates will be reviewed and approved by the bureaus. This process is documented in the Department's EDL database. Detailed site information and backup materials to support the cost estimate will be maintained in the project files.

4.10 Records Management

All records and documentation associated with the development of a cost estimate or with the development of a revised cost estimate needed to support a site's listing on the Department's EDL database must be retained by the preparing office. All applicable documentation should be readily accessible for review even after the EDL is removed from the inventory. Therefore, EDL records and documents will be maintained for no less than five years after the site cleanup action is complete. This retention applies to any required long-term site maintenance and LTM, but does not supersede any regulatory requirements. The cost estimates will be further documented in the Department's EDL database.

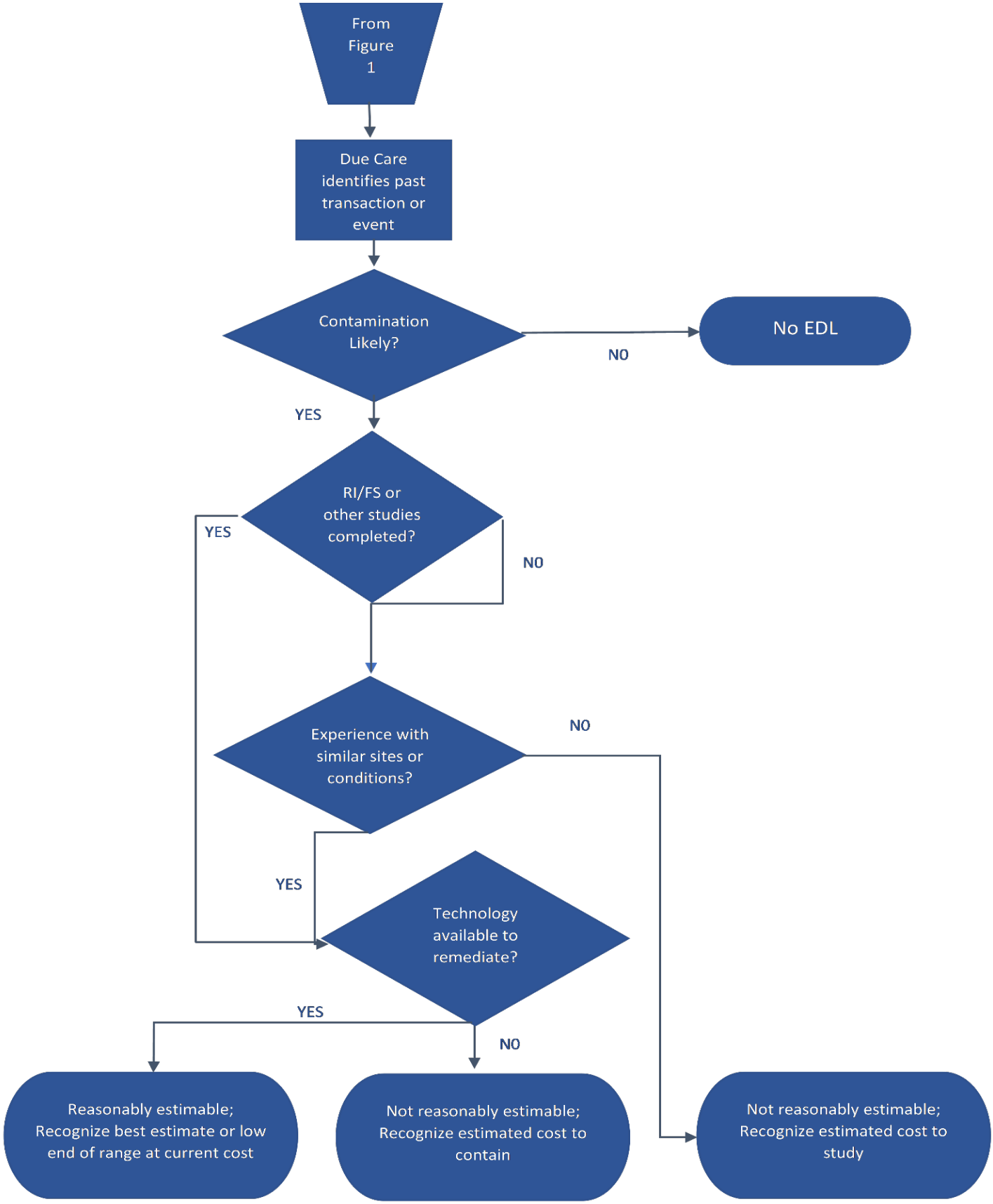

Figure 2- Estimable Due Care

5 Inflation

In accordance with guidance in OMB Circular A-94, EDL cost estimates and the asbestos cost factors and average survey cost have inflation or deflation built in using the Gross Domestic Product deflator published by the Bureau of Economic Analysis. The Department takes the average of the past five years' indices to generate the inflation factor and uses that in the calculation of the cost factors. This ensures that the Department's liability reflects current costs. An example inflation calculation is shown below:

$$Average\ Inflation = \frac{\frac{Latest\ Available\ Year - Base\ Year}{Base\ Year}}{Number\ of\ Years}$$

As shown in the table below, the GDP deflator inflation calculator per OMB Circular A-94 has a 5-year average inflation rate of 1.2498 percent.

Year	2010	2011	2012	2013	2014	2015	5-year average inflation rate
GDP Deflator	101.221	103.311	105.214	106.929	108.686	109.767	**1.2498%**

At the beginning of the fiscal year, cost estimates generated in previous fiscal years should be inflated to reflect current costs. The Department incorporates the applicable inflation factor into the Department's EDL database on an annual basis. At the beginning of the first quarter of the new fiscal year, bureaus should apply the inflation factor to all of their applicable sites. Bureaus can request to have inflation applied automatically by OEPC at the beginning of the 1st quarter. Bureaus not requesting inflation to be applied automatically must apply inflation to all of their applicable sites by the end of the first quarter (December 31). Inflation is not applied to current year cost estimates or fixed-price contract amounts. Any users utilizing cost estimating software should know if their cost estimates have inflation built into their estimate. In the case where inflation is built into the cost estimates by the software, inflation should either be excluded from the estimate prior to reporting in the EDL database, or it should not be inflated in the EDL database to avoid a double counting of inflation. The inflation applied should be documented in the detailed backup materials that support the cost estimate.

For asbestos cleanup liability estimates, the annual inflation factor is incorporated into the annual cost factor update and is loaded by the Business Integration Office into the Financial and Business Management System (FBMS). The current inflation factor is thereby automatically applied to asbestos cleanup liability calculations in FBMS.

For sites where work has been completed within the fiscal year, but no new site information has been obtained that would alter the existing cost estimate, it would be appropriate to reduce the existing EDL estimate by the amount of costs incurred since the last reporting period.

If no work was completed within the fiscal year and no new site information has been obtained that would alter the existing cost estimate, the inflation factor alone would be applied to the previous cost estimate (e.g., existing estimate x inflation factor) once annually to bring the estimates to the current dollar value. Refer to the annual Inflation Factors memorandum from PFM/OEPC referenced in Section 1 for further details.

6 EDL Recording and Reporting

Each bureau must report their estimated EDLs in the FBMS for quarterly and annual financial reporting. To facilitate the recording, tracking and reporting of environmental remediation liabilities, the Department has developed an EDL database. Bureaus are required to utilize the Department's EDL database for the recording, tracking and reporting of environmental remediation liabilities.

6.1 EDL Recording

The term "record" as used here refers to the information entered in the Department's EDL database. This EDL database is part of the Department's Environmental Management Information System (EMIS) located on the Department's intranet at URL *http://ecl.doi.gov.* The EDL database can be accessed by approved Department and bureau personnel. Access to bureau data and specific privileges (such as edit, read only) will be determined by each bureau and approved by a designated EDL bureau database administrator. Training on how to use the EDL database is available on the OEPC website at *https://www.doi.gov/oepc/HQ-Teams/eclm-team/documents*. Training resources include an EDL tutorial which provides background information about EDL issues, as well as, instructions on using the database. Included in these instructions are screen shots of the database itself to help guide the user. The OEPC website also includes an EDL Training Guide and an EDL User Guide.

New environmental remediation liability sites can be recorded in the EDL database as they are identified and site-specific information and cleanup cost estimates can be revised as new information is obtained. Per memorandum "*Environmental and Disposal Liabilities and Implementation of the Environmental Database System*" issued by the Assistant Secretary-Policy, Management, and Budget (July 3, 2006), bureaus are required to follow a set schedule for recording data in the EDL database. At the start of the first business day of the new quarter, OEPC personnel "freeze" (archive) the data in the database. Once frozen, the quarterly data cannot be changed. If a situation arises within one week after the data has been frozen that may affect the materiality of the financial statements, the bureau can request the database be opened. Any new EDL sites and revisions to existing EDL sites that will be reported on the financial statement, for the current quarter, can be made at any time during the current quarter by approved users. Bureau administrators will be responsible for approving all data that are reported on the financial statements. At the minimum, bureaus should be reviewing and certifying all data for third and fourth quarters. Before the end of the quarter, bureaus inform PFM/OEPC via email that they have finished approving and certifying their sites. Reviews and approval by designated bureau personnel are documented in the Department's EDL database.

In order for Department personnel and bureau users to track the progress of cleanup at environmental remediation liability sites, compare cost estimates developed at similar sites, or generate EDL site statistics for assessing purposes, the database requires bureaus to provide site-specific general information including:

- Facility name and site name
- Location (region, city [if applicable], state, zip [if applicable], latitude and longitude)
- Site type (e.g., landfill / dump, firing range, underground storage tank)
- Contaminants of Concern

- Affected Media
- Stage (e.g., the stage of the cleanup process such as study, cleanup / remediation / removal, LTM) or alternative cleanup phase nomenclature
- Substage (provides more detailed information on the current activity under "Stage"; e.g., Remediation Investigation, EE/CA, and Record of Decision would be substages of study)
- CHF Site (identifies the EDL site as receiving cleanup funds under the Department's Central Hazardous Materials Fund [CHF] Program)
- Law / Regulation (CERCLA, RCRA, UST, CWA [Clean Water Act], CAA [Clean Air Act], TSCA [Toxic Substances Control Act], or Other)
- EPA's Superfund Enterprise Management System ID and name, or Federal Docket name (if applicable).

The bureaus are required to record in the database the likelihood of incurring future costs as *probable, reasonably possible, or remote*, based on the criteria specified in Section 3, Liability Status.

Cost estimates, the date the cost estimate was generated, and the planned and actual completion dates (in fiscal year) are recorded in the database. The relevancy of the cost estimate is captured in the database by the user selecting the cost estimating method used, such as independent government estimate (IGE), contractor supplied, professional judgment based on known comparable site costs, or model.

Database users with edit privileges can add notes and attach pertinent electronic documents, e.g., PDF, Microsoft files, etc. associated with EDL sites within the database. Notes can include, but are not limited to, reasons for general information, liability status, or cost estimate revisions. Attached documents can include, but are not limited to, executive summaries of detailed studies, maps, RODs, letters stating no-further-action required received from the state, etc.

An existing site can be removed from the list of active sites in the database once the bureau decides that the site should no longer be considered an EDL. Users send the request for removal the same way as a site is routed for review and approval each quarter. Database users are asked for the justification of why a site should be removed, such as if cleanup is complete or there is no further bureau action required. Users can upload documentation for the removal of the site and add notes further explaining the removal. Note that "deleting" a site from the database is distinct from "removing" a site. Deletion of the site completely destroys all history of the site, and is reserved for special cases. Only a Super User of the database can delete a site.

6.2 EDL Reporting

As used in this guidance, the term "reporting" means to recognize an amount on the face of a financial statement or to disclose an amount, a range of amounts, or a comment regarding the uncertainty of the EDL cost estimate in the financial statement notes. The estimated recognized or disclosed amounts are based on reports generated from the Department's EDL database and asbestos cleanup liabilities report from FBMS. Reports have been designed that calculate individual and aggregate recognized and disclosed amounts.

In 2010, the Department issued the memorandum *Changes to Environmental and Disposal*

Liability (EDL) module which required bureaus to confirm in the EDL database that they have no unreported EDL sites at their bureau. This requirement is an annual requirement to be completed during the fourth quarter. Bureaus can certify at the facility, region, or bureau level that they have no unreported EDL sites. This annual confirmation helps to ensure completeness of the Department's EDL reporting.

6.3 Recognized EDL Amounts

The Department and its bureaus are required to recognize an EDL when the future outflow or other sacrifice of resources is *probable* and *reasonably estimable*. If both these conditions exist, the EDL cost estimate, or the portion of the total cleanup cost that is reasonably estimable at this time, is included in the amount recognized on the face of financial statements.

If the cost estimate is a single amount, this amount is recognized. However, if the EDL cost estimate is a range of amounts, the minimum amount (lower limit or LL) would be recognized. Although it is understood that the minimum amount of the range is not necessarily the amount that will ultimately be expended, it is not likely that the ultimate amount will be less than the minimum amount.

The EDL database is designed to calculate the amount to recognize on financial statements for environmental remediation liabilities. The recognized amount can be calculated for each site, each bureau, and for all bureaus (the Department). For environmental remediation liabilities having a liability status of *probable* (P), the sum of Cost to Study LL, Cost to Monitor LL, Other Costs LL, and Cleanup Cost LL would be included in the amount recognized.

6.4 Disclosed EDL Amounts

The total estimated loss is disclosed in notes in financial statements. There are two conditions under which the EDL cost estimate is included in the estimated loss. The two conditions are described below.

1. If the EDL has a liability status of *probable*, the entire range of the estimated total cleanup costs for *probable* sites is disclosed in notes associated with the financial statements. For example, if the estimated cost range was $100,000 to $1,000,000, $100,000 would be recognized and a range of $100,000 to $1,000,000 would be disclosed as the estimated loss.

2. If the EDL has a liability status of *reasonably possible, no costs would be recognized, but* the estimated total cleanup costs, or the range of estimated costs, would be disclosed as the estimated loss.

The EDL database has been designed to calculate the estimated loss amount that is disclosed in notes in the financial statements. The disclosed amount range is calculated for each site, each bureau, and for all bureaus (the Department). In the database, the lower limit of the disclosed range is calculated as the sum of Cost to Study LL, Cost to Monitor LL, Other Costs LL, and Cleanup Cost LL, equal to the Total Cost LL, for all sites with a liability status of *probable and reasonably possible*. The upper limit of the disclosed range is calculated as the sum of Cost to Study upper limit [UL], Cost to Monitor UL, Other Costs UL, and Cleanup Cost UL, equal to the Total Cost UL for all sites with a liability status of *probable and reasonably possible.*

If the aggregate of either the *probable* or *reasonably possible* EDL sites is not reasonably estimable, a comment that the EDL costs are not reasonably estimable at this time and an explanation would be included in the disclosure notes associated with the financial statements. However, the occurrence of this situation should be rare and would only be applicable if the EDL has recently been identified or new information becomes available about an existing EDL and there is insufficient time to develop a cost estimate.

6.5 Amounts Not Reported

If an EDL has a liability status of *remote*, no reporting (i.e., recognizing or disclosing) is necessary in the financial statements.

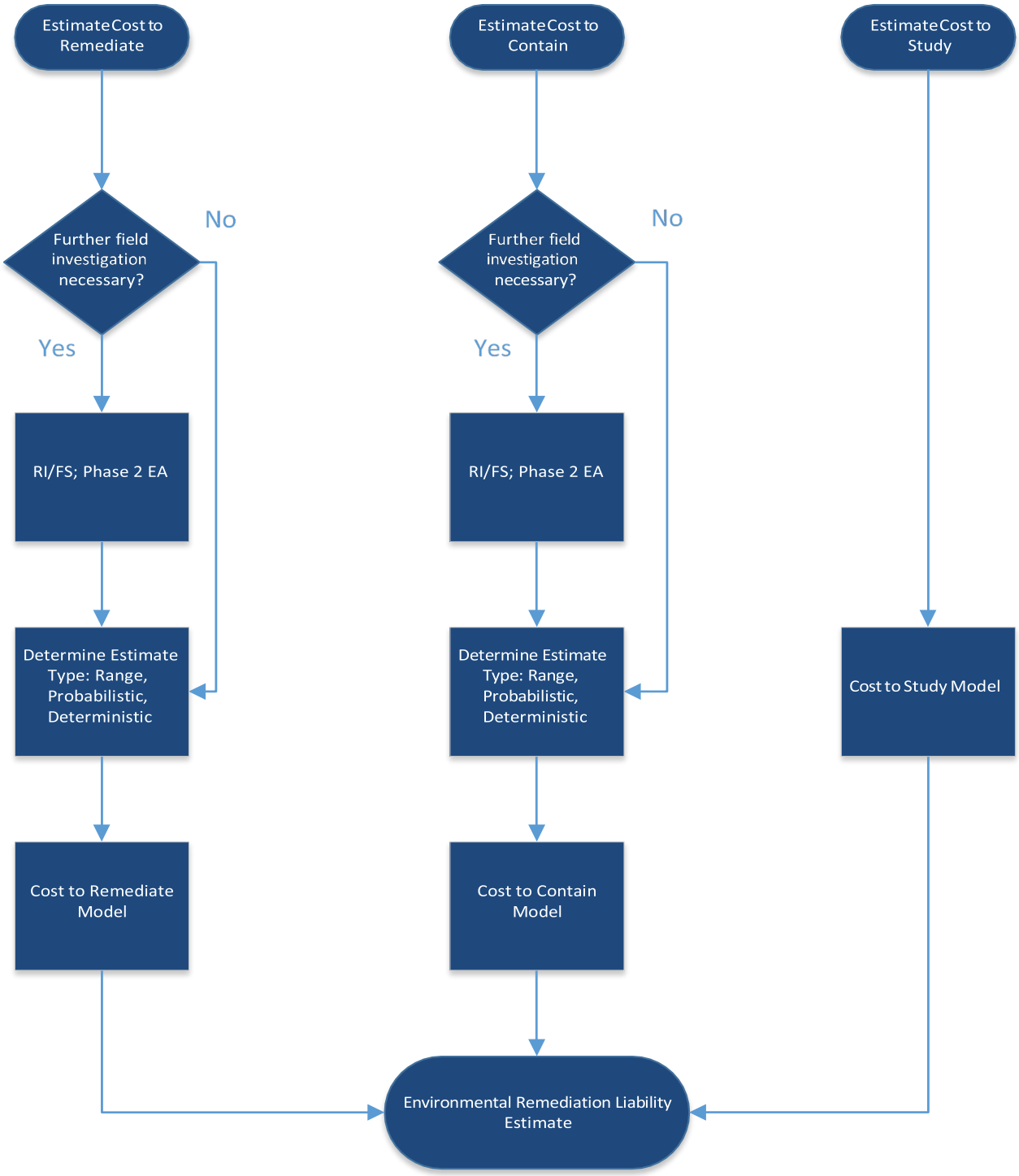

Figure 3 Environmental Remediation Liability Cost Estimate

7 Asbestos Cleanup Liabilities

Asbestos liabilities are a special category of EDL that require treatment distinct from other environmental liabilities. The Federal Accounting Standards Advisory Board (FASAB) issued Technical Bulletin (TB) 2006-1, Recognition and Measurement of Asbestos-Related Cleanup Costs, on September 28, 2006. A subsequent bulletin, TB 2009-1, Deferral of the Effective Date of Technical Bulletin 2006-1, extended the effective date of TB 2006-1 to October 1, 2011, and TB 2011-2, Extended Deferral of the Effective Date of Technical Bulletin 2006-1, further deferred implementation to October 1, 2012. TB 2006-1 provides general guidance regarding the required reporting of asbestos-related liabilities, including the future cleanup costs of asbestos abatement and disposal. It requires agencies to do the following:

1. Estimate both friable and nonfriable asbestos-related cleanup costs
2. Recognize a liability and related expense for those asbestos-related cleanup costs that are both probable and reasonably estimable in the financial statements
3. Disclose information related to asbestos-related cleanup costs that are probable but not reasonably estimable in a note to the financial statements.

To comply with the FASAB requirements for reporting liabilities associated with asbestos clean-up costs, the Department developed this methodology and guidance document to estimate the cleanup costs associated with asbestos in real property managed by the Department. This process is separate from the EDL database and uses the FBMS for modeling costs.

FASAB Technical Release 10, Implementation Guidance on Asbestos Cleanup Costs Associated with Facilities and Installed Equipment (TR 10), provides additional guidance to federal agencies on meeting the requirements. Diagram 1 of TR 10, entitled “General Approach to Determining, Estimating, and Recognizing Asbestos Cleanup Costs”, demonstrates the general approach which agencies may take in order to meet this reporting requirement see Figure 4). See TR 10 for explanation of footnotes included in the Diagram.

The Department’s guidance follows this general approach. The material in this section is taken from two Department guidance documents: Financial Management Memorandum 2013-023 *Asbestos-Related Cleanup Costs Associated with Real Property,* and *Department of the Interior Asbestos Liability Reporting Methodology and Guidance,* May 2014.

General Approach to Determining, Estimating, and Recognizing Asbestos Cleanup Liabilities

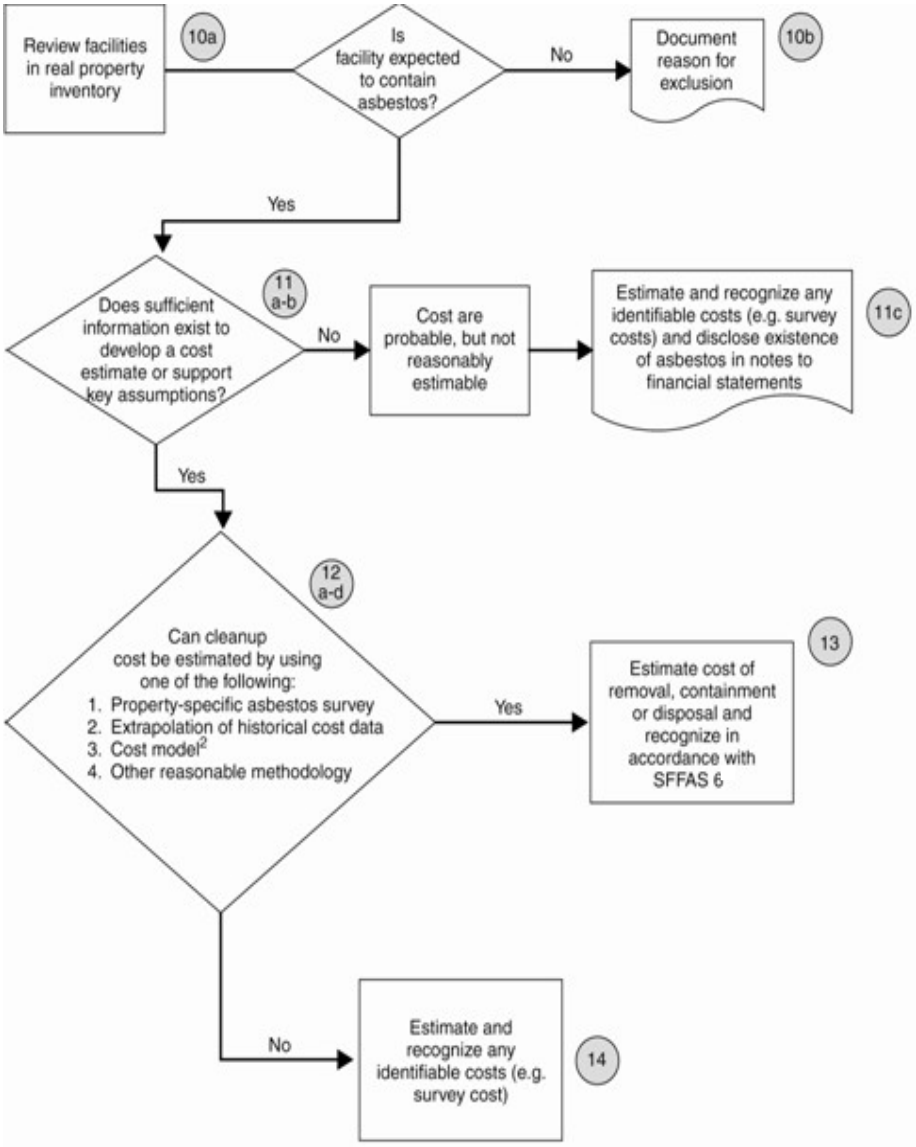

Figure 4- General Approach to Determining, Estimating, and Recording Liabilities

7.1 Applicable Guidance

The following FASAB documents apply to the Department's asbestos cleanup liability reporting:

- Statement of Federal Financial Accounting Standards (SFFAS) Number (No.) 5, *Accounting for Liabilities of the Federal Government*, amended.
- Statement of Federal Financial Accounting Standards (SFFAS) Number (No.) 6, *Accounting for Property, Plant, and Equipment*.
- Technical Bulletin 2006-1, September 6, 2006, *Recognition and Measurement of Asbestos-Related Cleanup Costs.*
- Technical Bulletin 2009-1, September 22, 2009, *Deferral of the Effective Date of Technical Bulletin 2006-1, Recognition and Measurement of Asbestos-Related Cleanup*

Costs.

- Technical Bulletin 2011-2: September 22, 2011, *Extended Deferral of the Effective Date of Technical Bulletin 2006-1, Recognition and Measurement of Asbestos-Related Cleanup Costs*.
- Technical Release Number 2 (TR 2), *Determining Probable and Reasonably Estimable for Environmental Liabilities in the Federal Government*.
- Technical Release 10 (TR 10), June 2, 2010, Implementation Guidance on Asbestos Cleanup Costs Associated with Facilities and Installed Equipment.
- Technical Release 11 (TR 11), June 2, 2010, Implementation Guidance on Cleanup Costs Associated with Equipment

7.2 Methodology for Estimating Asbestos Cleanup Liabilities

Overview

This section addresses the requirement to develop and report an asbestos-related cleanup liability for asbestos cleanup costs that are probable and reasonably estimable. TB 2006-1 defines asbestos-related cleanup costs as the costs of removing, containing, and/or disposing of 1) Asbestos Containing Material (ACM) from property, or 2) material and/or property that consists of ACM at permanent or temporary closure or shutdown of associated property, plant, and equipment. Per TR-10, the following methodologies may be used in developing asbestos cleanup cost estimates that are both probable and reasonably estimable:

1. A property-specific cost estimate based on an engineered cost estimate (most accurate, if available).
2. An extrapolation of historical cost or cost estimates for asbestos cleanup of similar real properties.
3. A cost model used for an individual real property or group of similar real properties and information from industry-specific cost estimation publications or standardized cost factors developed for each state.
4. Other reasonable methodologies.

The Department currently manages more than 120,000 real property assets (buildings and structures) making it cost prohibitive and too time and labor-intensive to create cost estimates on the complete inventory of real property assets to estimate asbestos cleanup costs. Therefore, the Department uses a cost model (Method 3 above) to develop asbestos cleanup cost estimates. The cost model is based on applying cost factors developed from the bureaus' available asbestos cost estimate data to the Department's portfolio of real property.

The Department's methodology consists of the following:

- Generate exemption list
- Develop cost factors
- Apply cost factors to non-exempt assets
- Perform annual updates to the cost factor
- Report asbestos cleanup liability in FBMS

7.3 Generating Exemption List

The Department analyzes the real property asset types (DOI asset codes) as used in FBMS, the Department's official property system of record, to generate an initial list of assets not expected to contain asbestos (e.g. land, roads, etc.). See Appendix 5 for a detailed list of exemptions. In addition, the Department works with the bureaus to develop additional exemptions. The bureaus' subject matter experts recommend asset groups to be exempted based on survey results, knowledge of construction materials and techniques, or manufacturer data indicating that the real property asset type is not expected to contain asbestos. Bureaus provide their recommendations for exemptions to the Department and identify the reason for the exemption.

Exemptions will only be applied to asset types and not to individual assets. Individual assets may be removed from the liability using the guidance provided in section 7.8.

The complete exemption list (Appendix 5) is managed at the Department level and is reviewed and updated when additional information becomes available. Assets with DOI Asset Codes on the exemption list are exempt from the asbestos cleanup liability. The remaining non-exempt assets are the real property assets which could potentially contain ACM and this inventory is used to develop the total asbestos-related cleanup costs.

7.4 Developing Cost Factors

Bans on the use of asbestos-containing building material by the U.S. Environmental Protection Agency began in the early 1970s and led to a significant decline in asbestos in buildings and structures. Not all asbestos is banned. It can still be used but not mined/manufactured within the US. In fact, the year 1980 is often used in the industry as a cut-off year after which constructed facilities are expected to contain significantly less asbestos containing material. Furthermore, when the Department analyzed the cost estimates submitted by the bureaus, it was found that there is a significant decline in the asbestos cleanup costs for assets built in 1980 and after. Consequently, the Department develops two cost factors ($/square foot) to estimate the overall asbestos cleanup liability, one for assets built prior to 1980 and another for assets built in 1980 and later.

Annually, the bureaus submit asbestos cost estimate data to the Department for analysis and development of the cost factors. The total asbestos cleanup consists of estimated cleanup costs and the survey costs.

The Department uses a database to house and analyze the cost estimate data and develop the cost factors. Supporting documentation on cost estimates conducted is maintained at the bureaus. Bureaus should verify that the information submitted is adequately supported and accurately reflected in FBMS.

7.5 Applying Cost Factors to Non-exempt Assets

The cost factors are applied to all non-exempt assets measured in square feet, including those assets with actual or estimated asbestos cleanup costs from cost estimates, based on asset construction dates, unless bureaus identify those assets as not having ACM in FBMS. For non-exempt assets that are not measured in square feet, the average cost of the asbestos cost estimates

conducted by all the bureaus is used to estimate the liability as there is no standard unit of measurement used across all of these assets types. One average cost estimate is calculated for all assets, regardless of the date of construction. The cost factors and average cost of surveys are provided by the Department to the bureaus annually via a Financial Management Memorandum.

The table below provides a simplified example of how the total estimated asbestos cleanup costs is calculated.

Breakdown of asbestos related costs in the FBMS.

FBMS Field Data	**Numerical Representation of Data**
Total cleanup costs from cost estimates	$1,000,000
Total gross square feet of assets surveyed	200,000
Cost factor [cleanup costs / surveyed total gross square feet]	$5.00
Total gross square feet in inventory of assets	1,000,000
Total estimated asbestos cleanup costs for assets in square feet [cost factor x total square feet in inventory of assets]	$5,000,000
Average Survey Cost	$700
Total number of assets not in square feet	1,000
Total estimated asbestos cleanup costs for assets not in square feet [average survey costs x total number of assets not in square feet]	$700,000
Total estimated asbestos cleanup costs [total estimated asbestos cleanup costs for assets in square feet + total estimated asbestos cleanup costs for assets not in square feet]	$5,700,000

7.6 Performing Annual Updates to the Cost Factors

SFFAS No. 6 requires cost estimates to be reviewed on a periodic basis so that financial statements are fairly presented. The Department reviews the cost factors annually and revises them based on existing cost estimate data as well as newly available cost estimate data through an annual data call to the bureaus.

In accordance with guidance in OMB Circular A-94, the cost factors and average survey cost have inflation or deflation built in using the Gross Domestic Product deflator published by the Bureau of Economic Analysis. The Department takes the average of the past five years indices to generate the inflation factor and uses that in the calculation of the cost factors. This ensures that the Department's liability reflects current costs. The inflation rate is incorporated into the cost factors which are issued each year to the bureaus.

Each quarter the Department EDL Program Manager reviews the FBMS records of the assets included in the asbestos cost factor database. To address data quality in the Asbestos Cost Factor Database, OEPC will take the following steps for internal controls:

1. Annually, the Department EDL Program Manager runs a comparison of the data table from the Cost Factor Database against the data from the Asset Code, Date Built or Gross

Square Feet fields in the FBMS Real Property Report. The Pre-1980 field must also be checked for consistency with the Date Built field.

2. The EDL Program Manager reviews the comparison report for discrepancies and updates the Cost Factor Database to match the data in the Real Property Report. The comparison report is printed and maintained for two years to document the changes made to the cost factor database.

3. The ECLM Team Leader validates the changes made to the cost factor database based on the data identified in the comparison report. After validation of the changes, the Team Leader signs and dates a certification document.

The Department EDL Program Manager will report any process issues identified to the ECLM Team Leader. The EDL Program Manager will also coordinate the issue resolution between PFM and the Office of Acquisition and Property Management (PAM) representatives.

7.7 Asbestos Cleanup Liability Reporting in FBMS

The Department uses FBMS to calculate and report the asbestos cleanup liability reporting requirement. The cost factors, the average survey cost, and the exemption list are provided to the FBMS Business Integration Office (BIO) before the first quarter of the fiscal year in order to be applied to the portfolio in FBMS. The Department works with the BIO and the FBMS programmers to build programming logic in the system so the asbestos cleanup liability is automatically calculated. The asbestos cleanup liability is based on the following data elements in FBMS:

1. Construction Completion Date
2. Gross Square Footage
3. Legal Interest
4. User Status
5. DOI Asset Code/Main Usage Type
6. Asbestos Survey
7. Asbestos Present
8. Renovation Complete

See Appendix 3 for a detailed explanation of the data elements and information regarding documentation used to support the information in FBMS.

To ensure that the asbestos cleanup liability is presented fairly in the Department's financial statements, the above data elements in FBMS should accurately reflect the asset's current characteristics. This requires the ongoing validation and update of real property data in FBMS. During internal reviews and external audits, bureaus will be required to provide supporting documentation of the data elements for sampled assets to determine the accuracy of the estimate. The PAM guidance states that bureaus should leverage existing program efforts, such as condition assessments, to review, validate, and update real property records. Additionally, bureaus may incorporate additional data reviews by focusing on assets having significant impact on the asbestos cleanup liability (e.g., assets with missing information, large square footage, or built prior to 1980). Asbestos cleanup liabilities are not assigned probabilities and are treated as having a probability status of Probable by default.

<u>Validation Rules when updating data fields affecting asbestos cleanup liability in FBMS:</u>

Changes made to the real estate object in FBMS are typically made at the field office level. Therefore, to ensure data consistency and quality, information reported in the system as well as on the asbestos report should be reviewed for accuracy at Regional and Headquarters levels, and any gaps should be addressed.

To minimize the potential for data errors, the Department, in conjunction with the BIO, instituted data validation rules in FBMS in regard to changes to some of the fields on the asbestos reporting tab in the real property module (see screenshot below).

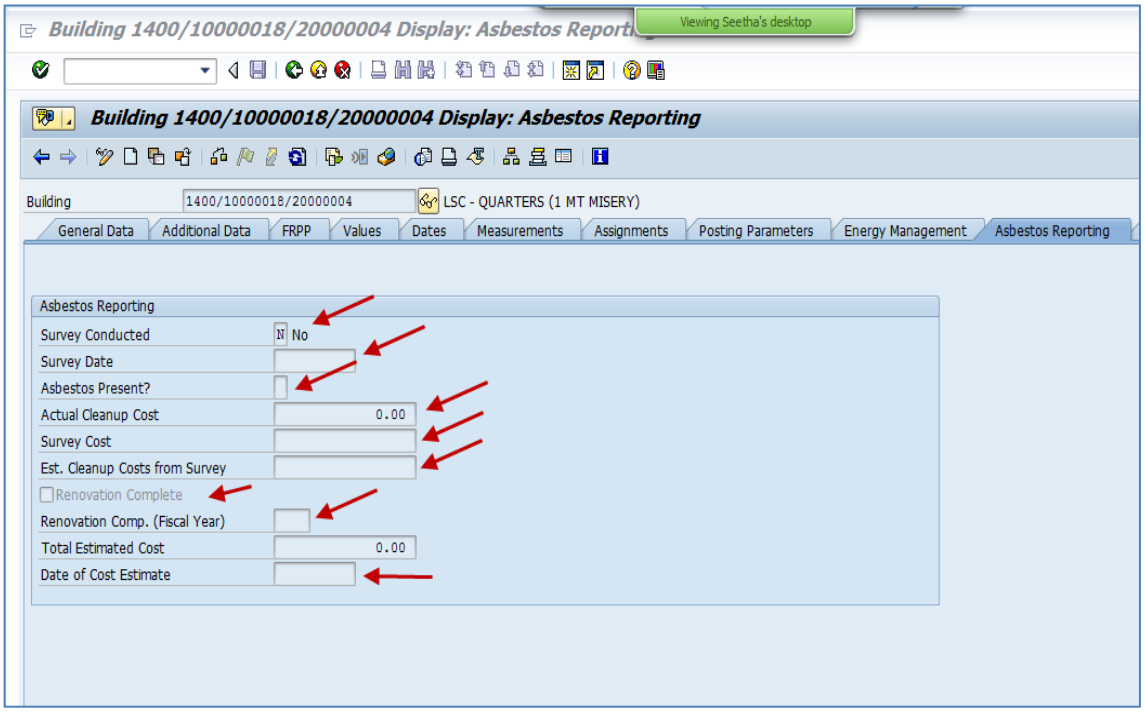

Figure 5 Screenshot of FBMS building information and associated tabs.

However, there are some user changes which can be made without violating the validation rules. They include the following:

FBMS excludes an asset from the asbestos cleanup liability report if a user selects 'No' for "Asbestos Present" or checks "Renovation Complete". However, the system does not prevent a user from clicking both 'No' to "Survey Conducted" and 'No' to "Asbestos Present" in the asset. Additionally, the system does not prohibit users from clicking 'Yes' to "Asbestos Present," and checking "Renovation Complete." Bureaus are reminded by pop-up windows that supporting documentation must be uploaded to the real estate object record and/or kept in the bureaus' project files if a user selects 'No' for "Asbestos Present" or marks "Renovation Complete". This is critical during the review of property data during the Department's external audit.

It is important to remember that the existence of a documented asbestos survey indicating no asbestos found does not necessarily indicate that the entire asset is free of asbestos. The survey documentation must be studied in detail to ensure that the scope of the survey included the entire asset and not just portions. Similarly, the fact that an asset has been renovated does not in and of itself justify clicking the "Renovation Complete" button and thereby removing the asset from the

asbestos cleanup liability calculation. A renovation may or may not have included a thorough asbestos abatement effort. Only a documented post-renovation survey conducted by qualified professionals justifies removing the asset from the asbestos cleanup liability. When in doubt, the "Asbestos Present" and "Renovation Complete" fields should be left blank.

FBMS has system controls in place prohibiting users from saving new buildings records (35 as beginning DOI Asset Code) with zero (0) for gross square footage and from leaving the construction completion date blank. However, these validations do not apply to existing assets unless bureaus are making changes to the asbestos reporting tab.

FBMS allows users to input zero for cost of survey when selecting 'Yes' for "Survey Conducted." It is critical that when bureaus conduct asbestos surveys and/or have asbestos survey information that they upload it to FBMS or retain it in the real property file.

7.8 Reducing the Asbestos Cleanup Liability for Non-Exempt Assets

The asbestos cleanup liability for non-exempt assets may be reduced when circumstances change and the assets no longer meet the criteria for reporting a liability. For example, when an asset is disposed of or when information becomes available supporting that no ACM is present in the asset, the Department no longer carries a liability for that asset.

Additionally, the asbestos cleanup liability may be reduced when an asset undergoes a renovation to remove asbestos. Since renovations can include many phases and may last for many years, it is difficult to design a consistent method to estimate the portion of asbestos being removed. While a complete renovation of a building may remove all the ACM, this cannot be assumed. Only a comprehensive survey of the renovated building by a qualified asbestos professional is evidence that the building should have no asbestos-related cleanup liability. Such a survey must be documented. The estimated liability will not be reduced for partial renovations or single phases of projects because the cost model is based on total gross square footage of buildings or complete renovation of structures.

Bureau personnel with appropriate system roles must update the FBMS real estate object after all phases of a renovation of a facility are complete so the model estimate can be reduced over time.

Appropriate documentation (contracts, as-built surveys, contractor reports) that an asset has had a complete renovation must be kept for audit purposes. Bureaus have the option of keeping the documentation on hand in the property file and/or uploading it to the real estate object in FBMS to assist with any auditing questions.

Marking that a renovation has been completed at a facility indicates that the bureau property manager is confirming that a comprehensive survey has been conducted post-renovation, documentation of this survey is available, and it should be removed from the cost model.

Bureaus are allowed to develop their own bureau-specific internal control policies and procedures in order to ensure the completeness and accuracy of this step. Per instructions given during the asbestos audit, do not indicate that all asbestos is gone unless the asset with asbestos containing building material has been completely renovated and no additional costs related to asbestos cleanup will be incurred at asset disposal. The contractor's final report must be available.

In addition to actual renovations, bureaus will remove from the liability calculation any assets with documented asbestos surveys demonstrating that the assets contain no ACM. This process will ensure that these assets will not have the cost factors or average survey cost applied.

7.9 Roles and Responsibilities

The table below summarizes the various roles and responsibilities of both the Departmental offices and the bureaus regarding asbestos cleanup liability reporting.

Entity	Role
Office of Acquisition and Property Management (PAM)	• Maintain real property inventory • Maintain DOI asset code list
Office of Financial Management (PFM)	• Issue accounting guidance on recognition/disclosure of asbestos cleanup liability and reporting process • Determine general exemptions • Reconcile Department-wide asbestos cleanup liability with asbestos report • Include asbestos cleanup liability in Agency Financial Report
Office of Environmental Policy and Compliance (OEPC)	• Issue and update implementation guidance • Maintain database of bureau submitted asbestos cost estimate data to calculate cost factors and average survey cost • Issue annual data call for additional ACM cost estimate information from bureaus, if required. • Calculate annual inflation and cost factor numbers and issue memos to BIO, PFM and bureaus • Issue quarterly asbestos cleanup liability reports to bureaus and to PFM
FBMS BIO	• Update cost factors and exemptions in FBMS, develop and refine fields, calculations, validations, and reports as needed • Work with Policy Offices to improve reporting capabilities
Bureaus	• Submit recommended exemptions and justifications • Respond to data calls for asbestos survey and cost data • Monitor and validate real property asset data and update real property records based on completed renovations • Maintain documentation on renovations and asbestos surveys conducted • Reconcile bureau asbestos cleanup liability with asbestos report • Recognize liability using information provided by the Department in financial systems per due dates from the PFM milestone list

7.10 Data Elements for Asbestos-Related Cleanup Liability Estimate Guidance on Acceptable Supporting Documentation

Background

Beginning in FY 2013, the Department began reporting a financial liability for asbestos-related cleanup costs for Department-managed real property assets in its financial statements.

Methodology and Critical Data Fields

The Department's methodology which is used to estimate the liability involves eight critical data elements included in FBMS that are described below:

- **Legal Interest** - legal ownership of the asset. Legal types within the FBMS include:

DOI Owned Leased
State Government Owned
Foreign Government Owned
Museum Trust
Tribally Owned
Withdrawn Land
GSA Provided
Other Agency Owned
Grant/Cooperative Agreement

Exemption #1: Assets with a legal interest other than "G" are not included in the asbestos cleanup liability.

- **User Status -** the status of the asset usage. FBMS contains the following types of user status:

A = Current Mission Need
I = Future Mission Need
B = Report of Excess Submitted
C = Report of Excess Accepted
F = Determination to Dispose
S = Surplus
G = Cannot Currently be Disposed
D = Disposed
AUC = Asset Under Construction

Exemption #2: Assets with a user status of "D" are not included in the asbestos cleanup liability.

- **DOI Asset Code/Main Usage Type** - The DOI Asset Code provides information on whether the asset is a building (code starts with "35") or a structure (code starts with "40"). The DOI Asset Code is important because some of the structures at the DOI Asset Code level where the building material is not likely to contain asbestos are exempt from the asbestos cleanup liability.

Exemption #3: Assets with DOI Asset Codes that do not begin with a "35" or "40"are not included in the asbestos cleanup liability.

Exemption #4: Assets with DOI Asset Codes that are included in DOI's current Approved Exemption list are not included in the asbestos cleanup liability.

- **Asbestos Survey** - A Y/N field in FBMS. This field was created to identify if an asbestos building materials survey was performed to determine the presence, quantity, condition, and location of asbestos containing building materials for the purpose of designing and implementing an abatement plan. The hazardous building materials are to be abated in order to comply with federal, state, and local environmental/safety laws and regulations prior to the start of any renovation or demolition activities.

- **Asbestos Present** - A Y/N field in FBMS where a "Y" indicates a survey was completed and asbestos was found and "N" indicates a survey was completed and asbestos was not found.

Exemption #5: Assets with an Asbestos Present indicator of "N" are not included in the asbestos cleanup liability.

- **Renovation Complete** - If this field is checked, it means that an asset with ACM (asbestos-containing material) has been completely renovated and no additional cost related to asbestos cleanup will be incurred at asset disposal. The contractor's final asbestos report must be made available.

Exemption #6: Assets with the Renovation Complete field checked are not included in the asbestos cleanup liability.

- **Construction Completion Date -** The date that the asset was built. The year determines whether the higher cost factor (pre-1980) or the lower cost factor (1980 and later) is applied to the total gross square footage of the asset to determine the asbestos cleanup liability.

- **Gross Square Footage -** gross square footage of the asset. The asbestos cleanup liability is determined by multiplying the appropriate cost factor by the total gross square footage.

Note about Asset Status:

Current programming in FBMS allows only assets with the system status as 'released' to appear on the FBMS report. Typically, this system status is coded as "REL-CRTE". There are, however, some released system statuses which may not be required to be reported as part of the asbestos cleanup liability. Bureaus are instructed to review their quarterly asbestos report and identify any assets with a system status that might need to be removed from their liability manually. These include:

- REL-AALK-DLFL-CRTE: released, account assignment lock set, deletion flag set
- REL-DLFL-CRTE: released, deletion flag set Below: is a list of authoritative sources and other acceptable documentation for supporting each of the data elements. In the event that bureaus have more reliable or alternative documentation beyond those listed, other forms of support may be used, and kept on file in the bureaus' project files or in a centralized location at the bureaus' headquarters depending on internal bureau policies and practices.

Generally, supporting documentation may be found in the official real property master file, the

real property acquisition file, the financial records for real property, field station comprehensive planning documents or other appropriate sources. The official real property master file and field station comprehensive planning documents include basic documentation that supports the cost, DOI asset type, the date the asset was placed into service, the asset's useful life, subsequent acquisition, addition or betterment, disposal or transfer, etc. The real property acquisition file may include title papers, method of acquisition, site maps and surveys, blueprints, construction photographs, inspection reports, maintenance records, and more. The financial records that may have been retained for real property may include purchase documents such as an invoice and settlement agreement that will support the legal interest and construction completion date.

The evaluation of data used in estimating the asbestos cleanup liability involves examining whether documentation supports corresponding information in FBMS. The term documentation (or supporting documentation) is referring to valid and relevant evidence. Evidence may be quantitative or qualitative; it may be objective or subjective; it may be absolutely compelling or be only mildly persuasive. Taken together, the goal is to have sufficient evidence to support the eight critical data elements reported in the system. In general, the most reliable evidence is documentation that is externally generated and externally distributed (or circulated). An example would be a deed prepared by the seller's attorney, reviewed by a title company, and recorded with the local government. In this example the documentation is prepared outside the organization, widely distributed and examined by third parties. Other less reliable but acceptable evidence may be documentation prepared internally and not reviewed or examined by another party.

7.11 Table of Acceptable Supporting Documentation

For each of the critical data elements, or "attributes", the list below identifies authoritative sources and other acceptable documentation, not in order of reliability or acceptability. In most cases, supporting documentation as shown below, or as determined by the Regional Chief Financial Officer and Accountable Property Officer to be equivalent to or greater evidence of data validity, is expected.

If, after an exhaustive search, bureaus cannot locate authoritative documentation for at least one of the data fields impacting the asbestos cleanup liability reporting requirement, bureaus can complete Step 5 on the Cover Sheet and Certification Statement accompanying each sample (see Appendix 6).

Attributes and Notes	Authoritative Source	Other Acceptable Documentation
Legal Interest (Legal Status)	Land acquisition appraisal or other realty records	For certain bureaus, Public Law (organic act or enabling legislation) decrees that all buildings within a unit boundary are assumed to be government owned.
	Title or deed	To support an exemption for a leased facility, a copy of the lease (or correspondence with the lessor).

Attributes and Notes	Authoritative Source	Other Acceptable Documentation
	Contract for construction	Architectural, facility manager, or engineering inventory, condition assessment or evaluation report.
	Transfer-of-property documents (from other agencies)	Statement from subject matter expert or field station manager (e.g., Superintendent's memo) may be obtained.
User Status	Disposal record (to support exemption)	Recent (within two years) photo
	Comprehensive/General Management Plan or local asset business plans	Statement from subject matter expert or field station manager (e.g., Superintendent's memo) may be obtained.
	Architectural, facility manager, or engineering inventory, condition assessment or evaluation report.	If exempt, proper documentation (for disposing property, plant, and equipment)
DOI Asset Code/Main Usage Type - the asset code provides information on whether the asset is a building (code starts with "35') or a structure (code starts with "40"). This field is only relevant to determine if the asset	Real property file records	Photograph
	Architectural, facility manager, safety or OSHA compliance officer, fire safety inspector, or engineering inventory, condition assessment, safety inspection or evaluation report.	List of classified structures documentation (for historic structures)
	Federal Highway's Road Inventory Program (RIP) documentation.	
is exempt (e.g., earthen dam) or non-exempt (e.g., a building). Also, the DOI Asset Code will determine whether the cost factor or the average survey cost is applied to determine the asbestos cleanup liability.	Construction or rehabilitation plans stating current National Fire Protection Code Occupational Classification.	Statement from subject matter expert or field station manager (e.g., Superintendent's memo) may be obtained.

Attributes and Notes	Authoritative Source	Other Acceptable Documentation
Asbestos Survey – only provide material for this element if an asbestos survey has been conducted.	Asbestos-Containing Material (ACM) survey	If survey conducted and asbestos found then provide the abatement cost estimate (by an independent, qualified contractor)
Asbestos Present – This field should be filled out if the Asbestos Survey field has a "yes" value. A "yes" or "no" value in the Asbestos Present field must be supported by documentation. Otherwise leave the field blank.	Asbestos-Containing Material (ACM) survey	Provide survey from an independent, qualified contractor that states no evidence of asbestos.
Renovation Complete – if "yes," provide documenta-tion that supports the renovation included removal of all asbestos.	Contractor's final report. The renovation must be comprehensive for the whole building to support a "yes" indication in this field.	Construction documents and/or contract
Construction Completion Date (year built) – this field is only relevant for buildings.	Land acquisition appraisal or other real property acquisition file records	Historic photographs or documents, news articles, annual work planning documents or field station comprehensive planning documents.
	Title or deed	Technical drawings
Supporting documentation needs only to clearly distinguish whether buildings were built before or after 1980.	Contract for construction	List of classified structures documentation (for historic structures)
	Transfer of property documents (from other agencies)	Architectural, facilities, or engineering inventory, condition assessment or evaluation report.
	Legal documents filed in public records	Other internet documentation (if reliable)
		Property cards
		Statement from subject matter expert or field station manager (e.g., Superintendent's memo)

Attributes and Notes	Authoritative Source	Other Acceptable Documentation
Gross Square Footage – this field is only relevant for buildings.	Technical drawings	Satellite photography (e.g., Google Earth with estimated square footage)
	List of classified structures documentation (for historic structures)	Photo with scale reference to estimate square footage
	Architectural, facility manager, safety or OSHA official, or engineering inventory, condition assessment or evaluation report.	Statement from subject matter expert or field station manager (e.g., Superintendent's memo)

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8 Appendices

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Appendix 1 - Due Care Documentation Sheet

1.		Bureau		
2.		Date reported: (mm/dd/yyyy)		
	a.	Reported by: (name/title/contact information)		
	b.	Reported to: (name/title/contact information)		
3.		Date inspected: (mm/dd/yyyy)		
	a.	Inspected by: (name/title/contact information)		
4.		Current FY		Select Quarter
5.		Facility/Site Name		
6.		Facility ID Number		
7.		Location Description		
8.		City / State (XX)		
9.		Longitude/Latitude (in Decimal Degrees)		
10.		GPS coordinates		
11.		Site Type	Active Mine / Mineral Processing Mill / Tailings	
12.		Describe the abnormal physical conditions observed (text format).		
13.		Due Care Status	Unknown	
14.		Due Care Scheduled Date		
15.		Date Due Care to be completed (mm/dd/yyyy)		
16.		If Due Care has been completed, describe the activities conducted and results (text format), and select the applicable disposition of the LOC (pull down).		
	a.	Description:		
	b.	Disposition:	Moved site to EDL inventory.	
17.		Date added to EDL inventory (mm/dd/yyyy)		
18.		Due Care conducted by: name/title/contact information		
19.		Date Due Care conducted (mm/dd/yyyy)		
20.	a.	Reviewed/Approved by: (name/title/contact information)		

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Appendix 2 - Cost Estimating Guides / References

Cost Estimating Guides and References

The following documents can provide a reasonable basis for the development of an EDL cost estimate. However, this list is not intended to be all inclusive and is subject to periodic updating.

Association for the Advancement of Cost Engineering International. 1990. Standard 10S-90. Standard Cost Engineering Terminology. (AACE 1990) (Rev. October 10, 2019) Retrieved from http://web.aacei.org/docs/default-source/rps/10s-90.pdf?sfvrsn=42.

Code of Federal Regulations (CFR). Title 40, Part 300. National Oil and Hazardous Substances Pollution Contingency Plan (NCP). Retrieved from https://www.govinfo.gov/app/details/CFR-2011-title40-vol28/CFR-2011-title40-vol28-part300/summary.

United States Environmental Protection Agency. October 1988. Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA. Interim Final EPA/540/G-89/004. (USEPA 1988). Retrieved from https://semspub.epa.gov/work/06/901141.pdf.

United States Environmental Protection Agency. Superfund Remedy Decisions. Retrieved from https://www.epa.gov/superfund/superfund-remedy-decisions.

United States Environmental Protection Agency. June 25, 1993. Memorandum: Revisions to OMB Circular A-94 on Guidelines and Discount Rates for Benefit-Cost Analysis. OSWER Directive No. 9355.3-20. (USEPA 1993). Retrieved from https://semspub.epa.gov/work/11/174414.pdf.

United States Environmental Protection Agency. September 1996. The Role of Cost in the Superfund Remedy Selection Process. Quick Reference Fact Sheet. (USEPA 1996). Retrieved from https://semspub.epa.gov/work/11/174446.pdf.

United States Environmental Protection Agency. August 1997. Rules of Thumb for Superfund Remedy Selection. (USEPA 1997). https://semspub.epa.gov/work/11/174931.pdf

United States Environmental Protection Agency. February 1990. Scopers Notes – An RI/FS Costing Guide. Bringing in a Quality RI/FS on Time and Within Budget. EPA/540/G-90/002. (USEPA 1990). http://nepis.epa.gov/Exe/ZyPDF.cgi/10001W34.PDF?Dockey=10001W34.PDF

United States Environmental Protection Agency. July 1999. A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents. EPA/540/R-98/031. (USEPA 1999). Retrieved from https://www.epa.gov/sites/production/files/2015-02/documents/rod_guidance.pdf.

United States Environmental Protection Agency. July 2000. A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. EPA/540/R-00/002. (USEPA 2000). Retrieved from https://semspub.epa.gov/work/HQ/174890.pdf.

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Appendix 3 - EDL Cost Estimate Documentation Sheet

This form is designated to document the cost estimate for the referenced site in DOI's EDL report as required and defined by applicable federal accounting standards. Nothing on this form constitutes or should be construed as an admission of fact.

EDL Cost Estimate Documentation Sheet

Disclaimer

This form is designed to document the cost estimate for the referenced site in DOI's EDL report as required and defined by applicable federal accounting standards. Nothing on this form constitutes or should be construed as an admission of fact or the assertion, adoption, or concession of any legal, regulatory, financial, accounting, environmental, scientific or engineering position, projection or conclusion. Estimating future costs associated with the cleanup of environmental damage is fraught with uncertainty. The uncertainty may be high early in the cleanup process, but should decrease as site conditions are better understood. As such, the cleanup cost estimates presented at this time may not accurately reflect the actual cost required to achieve total cleanup. Moreover, the information on this form is strictly confidential and is protected by all applicable privileges.

Note: Work sheet tab 1 alone will be sufficient to document a site's cleanup cost estimate if the site does not consist of multiple sub-areas (e.g., operable units or other) or include several cleanup action alternatives. If the site consists of multiple sub-areas with different cleanup actions activities, a cost estimate will be developed for each sub-area. Tabs 2 and 3 can be used to document different sub-areas. The total cost estimate will combine the cost estimates of the sub-areas (tabs 1, 2, and 3). Additional tabs can be added for additional sub-areas as needed.

Additionally, cost estimates can be developed for several response alternatives if the preferred alternative has not been determined and the estimator cannot assume the alternative that will be preferred. The individual sub-area sheets (tabs 1, 2, and 3) can be used to document individual response alternatives.

1. **Date Completed** _____
2. **Current FY Quarter** _____
3. **Site Name** _____
4. **Sub-area or Alternative Name (if applicable)** _____
5. **Location / State** _____
6. a. **Estimator's Name** _____
   b. **Estimator's Position** _____
   c. **Estimator's Signature** _____
7. a. **Reviewer's / Approver's Name** _____
   b. **Reviewer's / Approver's Position** _____
   c. **Reviewer's / Approver's Signature** _____ **Date** _____
8. **Site /Sub-area Type**

Select Applicable		Select Affected Media	
Abandoned Mine/Mineral Processing Mill/ Tailings	☐	Air	☐
Abandoned Oil, Gas or Fluid Well(s)	☐	Soil	☐
Active Mine/Mineral Processing Mill/ Tailings	☐	Sediment	☐
Active Oil, Gas or Fluid Well(s)	☐	Groundwater	☐
Acquired Federal Facility	☐	Surface Water	☐
Acquired Industrial Facility	☐		
Acquired Private Property	☐		
Agricultural / Dip Vats	☐		
Airfield	☐		
DOI Facility	☐		
Illegal Dumping / Burning of Hazardous Substances	☐		
Improper Disposal	☐		
Firing Range	☐		
Landfill/Dump	☐		
Leaking Aboveground Storage Tank(s)	☐		
Leaking Underground Storage Tank(s)	☐		
Mixed Federal Industrial Facility	☐		
Pipeline Leaks/Spills	☐		
Reserve or Treatment Pit	☐		
School / Buildings	☐		
Spills	☐		
Utilities	☐		
Other (specify below)	☐		

_____

Figure 6. Sample EDL Cost Estimate Documentation Sheet

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Appendix 4 – Appendix Under Review

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Appendix 5 - DOI Asbestos Exemption List by Asset Code

DOI Exemption List by Asset Code

DOI Asset Code	Real Property Type	Predominant Use Category	DOI Asset Type
20000000	Land	Agriculture	N/A
20010000	Land	Grazing	N/A
20040000	Land	Grazing	N/A
20040100	Land	Grazing	Corral/Livestock Area
20070000	Land	Forest and Wildlife	N/A
20080000	Land	Parks and Historic Sites	N/A
20080100	Land	Parks and Historic Sites	Archeological Site
20080200	Land	Parks and Historic Sites	Paleontological Site
20090000	Land	Wilderness Areas	N/A
20100000	Land	Office Building Locations	N/A
20100100	Land	Office Building Locations	Administrative/ Geographical Site
20110000	Land	Miscellaneous Military Land	N/A
20120000	Land	Airfields	N/A
20130000	Land	Harbors and Ports	N/A
20140000	Land	Post Offices	N/A
20150000	Land	Power Development and Distribution	N/A
20160000	Land	Reclamation and Irrigation	N/A
20170000	Land	Land used for Outpatient Healthcare Facilities	N/A
20180000	Land	Flood Control and Navigation	N/A
20190000	Land	Vacant	N/A
20200000	Land	Institutional	N/A
20300000	Land	Housing	N/A
20400000	Land	Storage	N/A
20500000	Land	Industrial	N/A
20650000	Land	Space Exploration	N/A
20700000	Land	Research and Development	N/A
20720000	Land	Communication Systems	N/A
20730000	Land	Navigation and Traffic Aids	N/A
20800000	Land	All Other Land	N/A
20800100	Land	Training Land	Recreation Area
20810000	Land	Training Land	N/A
40120000	Structure	Airfield Improvements/ Pavements	N/A
40120100	Structure	Airfield Improvements/ Pavements	Retardant Ramp
40120200	Structure	Airfield Improvements/ Pavements	Airstrip
40120300	Structure	Airfield Improvements/ Pavements	Helipad
40120400	Structure	Airfield Improvements/ Pavements	Aircraft ramp

DOI Asset Code	Real Property Type	Predominant Use Category	DOI Asset Type
40130000	Structure	Harbor and Port Facilities	N/A
40130100	Structure	Harbor and Port Facilities	Pier
40130200	Structure	Harbor and Port Facilities	Dock Stationary
40130300	Structure	Harbor and Port Facilities	Dock Floating
40130400	Structure	Harbor and Port Facilities	Marina Waterfront
40130500	Structure	Harbor and Port Facilities	Boat Launch
40150200	Structure	Power Development and Distribution	Electrical Distribution System
40150300	Structure	Power Development and Distribution	Dam Low Hazard
40150400	Structure	Power Development and Distribution	Dam Significant Hazard
40150500	Structure	Power Development and Distribution	Dam High Hazard
40150600	Structure	Power Development and Distribution	Dam Non-Program
40160000	Structure	Reclamation and Irrigation	N/A
40160100	Structure	Reclamation and Irrigation	Water Control Management
40160200	Structure	Reclamation and Irrigation	Impoundment
40160300	Structure	Reclamation and Irrigation	Constructed Waterway
40160400	Structure	Reclamation and Irrigation	Constructed Waterway Canal
40160500	Structure	Reclamation and Irrigation	Constructed Waterway Piping
40160600	Structure	Reclamation and Irrigation	Constructed Waterway Tunnel
40160700	Structure	Reclamation and Irrigation	Constructed Waterway Siphon
40160800	Structure	Reclamation and Irrigation	Constructed Waterway Flume
40160900	Structure	Reclamation and Irrigation	Drainage Ditch
40161000	Structure	Reclamation and Irrigation	Irrigation Culvert
40161100	Structure	Reclamation and Irrigation	Water Control Structure
40161200	Structure	Reclamation and Irrigation	Water Control Structure Check
40161300	Structure	Reclamation and Irrigation	Water Control Structure Chute
40161400	Structure	Reclamation and Irrigation	Water Control Structure Division Box
40161500	Structure	Reclamation and Irrigation	Water Control Structure Drop
40161600	Structure	Reclamation and Irrigation	Water Control Structure Headgate
40161700	Structure	Reclamation and Irrigation	Water Control Structure Headwork
40161800	Structure	Reclamation and Irrigation	Water Pumping Station
40161900	Structure	Reclamation and Irrigation	Dam Low Hazard
40162000	Structure	Reclamation and Irrigation	Dam Significant Hazard
40162100	Structure	Reclamation and Irrigation	Dam High Hazard
40162200	Structure	Reclamation and Irrigation	Dam Non-Program
40162300	Structure	Reclamation and Irrigation	Levee Dike
40180000	Structure	Flood Control and Navigation	N/A

DOI Asset Code	Real Property Type	Predominant Use Category	DOI Asset Type
40180100	Structure	Flood Control and Navigation	Water Control Management
40180200	Structure	Flood Control and Navigation	Impoundment
40180300	Structure	Flood Control and Navigation	Constructed Waterway
40180400	Structure	Flood Control and Navigation	Constructed Waterway Canal
40180500	Structure	Flood Control and Navigation	Constructed Waterway Piping
40180600	Structure	Flood Control and Navigation	Constructed Waterway Tunnel
40180700	Structure	Flood Control and Navigation	Constructed Waterway Siphon
40180800	Structure	Flood Control and Navigation	Constructed Waterway Flume
40180900	Structure	Flood Control and Navigation	Water Control Structure
40181000	Structure	Flood Control and Navigation	Water Control Structure Check
40181100	Structure	Flood Control and Navigation	Water Control Structure Chute
40181200	Structure	Flood Control and Navigation	Water Control Structure Division Box
40181300	Structure	Flood Control and Navigation	Water Control Structure Drop
40181400	Structure	Flood Control and Navigation	Water Control Structure Headgate
40181500	Structure	Flood Control and Navigation	Water Control Structure Headwork
40181600	Structure	Flood Control and Navigation	Water Pumping Station
40181700	Structure	Flood Control and Navigation	Dam Low Hazard
40181800	Structure	Flood Control and Navigation	Dam Significant Hazard
40181900	Structure	Flood Control and Navigation	Dam High Hazard
40182000	Structure	Flood Control and Navigation	Dam Non-Program
40182100	Structure	Flood Control and Navigation	Levee Dike
40400000	Structure	Storage (Other than building)	N/A
40400100	Structure	Storage (Other than building)	Water Storage Tank
40400200	Structure	Storage (Other than building)	Fuel Storage Tank
40400300	Structure	Storage (Other than building)	Fuel Storage Tank Above Ground Nonpressurized
40400400	Structure	Storage (Other than building)	Fuel Storage Tank Underground Nonpressurized
40400500	Structure	Storage (Other than building)	Fuel Storage Tank Propane Natural LNG Pressurized
40400600	Structure	Storage (Other than building)	Other Storage Tank
40400700	Structure	Storage (other than buildings)	Other Storage Tank Above Ground
40400800	Structure	Storage (Other than Buildings)	Other Storage Tank Underground
40400900	Structure	Storage (Other than building)	Pole Barn
40401100	Structure	Storage (Other than building)	Grain Bin
40500000	Structure	Industrial (other than buildings)	N/A
40500100	Structure	Industrial (Other than buildings)	Fish Screen
40500200	Structure	Industrial (Other than buildings)	Fish Production Pond
40500300	Structure	Industrial (Other than buildings)	Fish Production Kettle
40500400	Structure	Industrial (Other than buildings)	Fish Production Raceway
40500500	Structure	Industrial (Other than Buildings)	Fish Production Burrow

DOI Asset Code	Real Property Type	Predominant Use Category	DOI Asset Type
40500600	Structure	Industrial (Other than buildings)	Fish Production Oxygenation System
40500700	Structure	Industrial (Other than buildings)	Fish Ladder Spawning Channel
40600000	Structure	Service (Other than building)	N/A
40660000	Structure	Parking Structures	N/A
40660100	Structure	Parking Structures	Parking Lot
40660200	Structure	Parking Structures	Parking Garage
40660300	Structure	Parking Structures	Carport Detached
40710500	Structure	Utility System	Wildlife Water Production System
40710600	Structure	Utility System	Water Well
40710700	Structure	Utility System	Wastewater Collection System
40710800	Structure	Utility System	Sewage Treatment Facility Plant
40710900	Structure	Utility System	Septic System
40711100	Structure	Utility System	Fuel System
40711300	Structure	Utility System	Solid Waste System
40720000	Structure	Communication System	N/A
40720100	Structure	Communication System	Telecommunication
40720200	Structure	Communication System	Communication Tower
40730000	Structure	Navigation and Traffic Aids (other than buildings)	N/A
40750000	Structure	Recreation	N/A
40750100	Structure	Recreation	Campground
40750200	Structure	Recreation	Picnic Area
40750300	Structure	Recreation	Maintained Landscape
40750400	Structure	Recreation	Swimming Pool
40750500	Structure	Recreation	Swimming Area
40750600	Structure	Recreation	Beach
40750700	Structure	Recreation	Kiosk
40750800	Structure	Recreation	Amphitheater
40750900	Structure	Recreation	Pavilion
40751000	Structure	Recreation	Trail Paved
40751100	Structure	Recreation	Trail Unpaved
40751200	Structure	Recreation	Trail River
40751300	Structure	Recreation	Boardwalk
40760000	Structure	Road and Bridge	N/A
40760100	Structure	Road and Bridge	Road Paved
40760200	Structure	Road and Bridge	Road Gravel
40760300	Structure	Road and Bridge	Road Dirt
40760400	Structure	Road and Bridge	Bridge
40760500	Structure	Road and Bridge	Road Bridge
40760600	Structure	Road and Bridge	Crossing

DOI Asset Code	Real Property Type	Predominant Use Category	DOI Asset Type
40760700	Structure	Road and Bridge	Culvert Road Bridge
40760800	Structure	Road and Bridge	Trail Bridge
40760900	Structure	Road and Bridge	Tunnel
40761000	Structure	Road and Bridge	Road Tunnel
40761100	Structure	Road and Bridge	Trail Tunnel
40761200	Structure	Road and Bridge	Road Culvert
40761300	Structure	Road and Bridge	Road Culvert Major
40761400	Structure	Road and Bridge	Road Culvert Minor
40761500	Structure	Road and Bridge	Guardrail
40770000	Structure	Railroads	N/A
40770100	Structure	Railroads	Railroad Trestle
40770200	Structure	Railroads	Railroad Track Bed
40780000	Structure	Monument and Memorial	N/A
40780100	Structure	Monument and Memorial	Outdoor Sculpture
40780200	Structure	Monument and Memorial	Ruin
40780300	Structure	Monument and Memorial	Monument
40800000	Structure	All Other	N/A
40800100	Structure	All Other	Bulkhead
40800200	Structure	All Other	Fencing
40800300	Structure	All Other	Gate
40800400	Structure	All Other	Cattle Guard
40800500	Structure	All Other	Sign
40800600	Structure	All Other	Bleacher Outside
40800700	Structure	All Other	Nesting Island
40800800	Structure	All Other	Mobile Home Pad
40800900	Structure	All Other	Observation Deck Platform Tower
40801000	Structure	All Other	Fire Tower
40801100	Structure	All Other	Fish Public Display Pond
40820000	Structure	Weapons Ranges	N/A
40830000	Structure	All Other	Renewable Energy System

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Appendix 6 - Sample Asbestos Cleanup Liability Sampling Form

Asbestos Liability Sampling Form

IMPORTANT: PLEASE READ THE STEP-BY-STEP INSTRUCTIONS BEFORE COMPLETING THIS FORM!

SECTION 1: GENERAL INFORMATION

1. Bureau:		3. Park Unit (for NPS only)	
2. Sample Number:		4. Region (for BOR only)	

SECTION 2: ASSET INFORMATION

5. Real Property Unique ID:		10. Construction Completion Date:	
6. FBMS Business Entity:		11. Gross Square Footage:	
7. FBMS Asset Number:		12. Legal Interest:	
8. DOI Asset Code / Main Usage Type:		13. User Status:	
9. FBMS Bldg. Description:		14. Is this asset exempt? Y/N. If "Y" Exemption #:	

SECTION 3: ASBESTOS SURVEY INFORMATION

Asbestos Survey Question	Yes	No	N/A
15. Was an Asbestos Survey conducted? If YES, provide a copy of the asbestos survey.			
16. If survey conducted, is asbestos present?			
17. Has the building been COMPLETELY (100%) renovated and no asbestos remains? If YES, provide contractor's final report.			

SECTION 4: DOCUMENTATION NEEDED

Data Element	Yes	No	Description of Documentation Provided (e.g., as-built drawing, photograph, condition assessment report, etc.)
18. DOI Asset Code / Main Usage Type			
19. Building Gross Square Footage			
20. User Status			
21. Legal Interest			
22. Construction Completion Date			

SECTION 5: CERTIFICATION – Required if documentation is NOT provided for any data element in SECTION 4 or if the documentation submitted is different from FBMS.

23. We have examined all of our physical records and have determined that no documentation is available or accessible for those data elements checked "No" in SECTION 4. To the best of our knowledge, the asset information provided on this form is correct as it relates to the asset listed above. Signature and date of signature of certifying individual (e.g., Field Station Manager, Superintendent) are required.

Name _____ Title _____ Signature _____ Date _____

SECTION 6: DOCUMENTATION OF RESPONSIBLE OFFICIALS RESPONDING TO THIS DATACALL

_____ _____ _____

24. Name/Title/Signature of person who completed the sample — Date — Telephone/e-mail

_____ _____ _____

25. Name/Title/Signature of person who reviewed the sample for accuracy and completeness — Date — Telephone/e-mail