



Environmental and Disposal Liabilities Identification, Documentation And Reporting Handbook v 3.0



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LIST OF ACRONYMS

AAPC	Accounting and Auditing Policy Committee
ADEQ	Arkansas Department of Environmental Quality
AFR	Annual Financial Report
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
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CHF	Central Hazardous Materials Fund
CMS	Corrective Measures Study
CWA	Clean Water Act
Department	Department of the Interior
ECL	Environmental Cleanup Liability
EDL	Environmental and Disposal Liability
EMIS	Environmental Management Information System
EE/CA	Engineering Evaluation and Cost Analysis
FASAB	Federal Accounting Standards Advisory Board
FRTR	Federal Remediation Technologies Roundtable
FUDS	Formerly Used Defense Site
GAAP	Generally Accepted Accounting Principles
GMRA	Government Management Reform Act
Handbook	EDL Handbook Version 3.0
HCAS	Historical Cost Analysis System
IGCE	Independent Government Cost Estimate
LL	Lower Limit
LOC	Location of Concern
LTM	Long-term Monitoring
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
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
SFFAS	Statement of Federal Financial Accounting Standards
TSCA	Toxic Substances Control Act
UL	Upper Limit
URL	Universal Resource Locator
UST	Underground Storage Tank

1.0 INTRODUCTION

Current directive from the Office of Management and Budget (OMB) requires the Department of the Interior (Department) 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 quarterly unaudited financial statements in accordance with OMB Circular A-136, *Financial Reporting Requirements*. 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 disclose contingent environmental liabilities in their financial reports. Agencies are required to recognize a contingent liability when a future outflow or other sacrifice of resources as a result of past transactions or events is *probable* and *measurable*. Contingent liabilities that do not meet the criteria of *probable*, but are *reasonably possible*, are disclosed in notes to the financial statement. As such, the Department's bureaus are required to report contingent environmental liabilities to the Office of Financial Management (PFM) on a quarterly basis.

This guidance is intended to provide a consistent approach for estimating and reporting contingent environmental liabilities across all bureaus.

1.1 Applicable Standards and Guidance

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

- *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-123 - Management's Responsibility for Internal Control, issued by the Office of Management and Budget, revised December 21, 2004
- *Financial Reporting Requirements*, OMB Circular A-136, 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

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

- 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.
- *Determining Probable and Reasonably Estimable For Environmental Liabilities in the Federal Government*, Federal Financial Accounting and Auditing, Technical Release Number 2 (Technical Release No. 2), issued by the Accounting and Auditing Policy Committee (AAPC).
- 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.
- *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.
- *Updating Database of Sites with Potential Environmental Liability*, Assistant Secretary – Policy, Management and Budget (PMB), dated June 20, 2005.
- *Environmental and Disposal Liabilities and Implementation of the Environmental Database System*, Assistant Secretary—Policy, Management, and Budget (PMB), dated July 3, 2006.
- *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.
- *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.
- *Policy and Procedures for Prioritization of Environmental and Disposal Liability (EDL) Sites*, Director, Office of Environmental Policy and Compliance, Environmental Compliance Memorandum (ECM) 07-4, dated December 21, 2007.
- *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.
- *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.
- *Inflation Factors for Environmental and Disposal Liabilities*, Director, Office of Financial Management (PFM) and Director, Office of Environmental Policy and Compliance (OEPC), issued annually.

Departmental financial guidance can be found on PFM’s public website:

<http://www.doi.gov/pfm/policy>. Departmental environmental policies can be found on OEPC's public website at <http://www.doi.gov/oepec/eclm>.

1.2 Definitions

Various terms have been used to refer to environmental 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). EDLs have the same requirements for identifying and reporting as previously applicable to ECLs. The change affects the terminology only. The following is a list of commonly used terms found within applicable environmental liability estimating and reporting standards and guidance.

- **Asbestos-containing Materials (ACM)** - Building materials containing greater than one percent (>1%) asbestos.
- **Asbestos-related cleanup costs** - Pertains to ACM where there has been no associated release of asbestos to the environment and includes the cost of removing, containing, and/or disposing of 1) 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.
- **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.
- **Contaminated** - The terms “contaminated” and “contamination” used throughout this Handbook refer to releases of hazardous substances or petroleum that may pose a threat to human health or the environment.
- **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.
- **Department Lands** – Land, facilities, or resources 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 owns in trust for an Indian tribe or individual Indian is not considered under the jurisdiction, custody, or control of a Department of the Interior bureau or office solely because of its trust status.

- **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.

- **Due Care** - The process followed by a bureau or office to use reasonable effort to examine a Location of Concern 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.
- **Environmental and Disposal Liability (EDL)** - An anticipated future outflow or other sacrifice of resources (e.g., costs) where, based on the results of due care, further study or cleanup is warranted due to past or current operations that have environmental closure requirements or contaminated Department lands.
- **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 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.
- **Future** – As used in this handbook, this term refers to an event which occurs beyond the current reporting period.
 - **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 Statements of Federal Financial Accounting Standards (SFFAS) and Interpretations, Technical Bulletins, Technical Releases, and Implementation Guides.
 - **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.
 - **Hazardous Substance(s)** - The term “hazardous substance(s)” used throughout this Handbook is an element, compound, mixture, solution, or substance that is defined as a hazardous substance under Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

- **Liability** - For federal financial accounting purposes, a future outflow or other sacrifice of resources (e.g., costs) as a result of past events or transactions for which the Department is responsible. This definition is derived from generally accepted accounting principles and does not imply or infer legal liability.
- **Liability Status** - The likelihood (*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 study, monitoring, or cleanup at an EDL site. This definition is derived from generally accepted accounting principles and does not imply or infer legal liability.
- **Location of Concern** - An area on Department lands that is suspected to be contaminated based on known past activities or observed and reported physical indicators, but where no due care has yet been conducted.
- **Materiality/Material Change** – For purposes of this handbook, a change in a site’s total cleanup cost estimate of 10% or more and/or a change in a bureau’s recognized liability of 10% or more.
- **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.
- **Release – Occurs** when a substance enters the environment.
- **Remote** – The likelihood of a future outflow or other sacrifice of resources (e.g., costs) that is slight (less than *reasonably possible*).
- **Report** - Estimated costs recognized on the federal financial statements or disclosed in notes.

1.3 Responsibilities

Responsibilities to identify and report EDLs are shared by environmental program management and the equivalent-level accounting personnel. The bureau-level environmental program management is responsible for identifying EDLs, generating and reviewing cleanup cost estimates and maintaining the associated documentation on a site-by-site basis. The bureaus' accounting personnel are responsible for coordinating with the environmental staff, performing a reasonableness check on reported liability amounts, and ensuring the liability is correctly categorized as recognized or disclosed according to generally accepted accounting principles (GAAP).

At the Departmental level, OEPC is responsible for maintaining and enhancing the database used to record EDLs and provide guidance to the bureaus' environmental management personnel. PFM is responsible for coordinating with the OEPC and the bureaus' accounting personnel, consolidating the individual liabilities, and ensuring that the total liability is recognized or disclosed according to GAAP and OMB Circular A-136.

OEPC and PFM will conduct periodic management reviews of selected EDL sites to check the reasonableness of the cleanup cost estimates and the supporting documentation. Bureaus that have EDL sites must retain adequate documentation of the management reviews, as well as documentation that identifies the data sources, estimating method, and assumptions used for preparing the cleanup cost estimates.

2.0 EDL IDENTIFICATION

Contamination can occur from past or current operations (such as solid waste landfills; treatment, storage, or disposal facilities; ware yards; firing ranges; mine and mill sites) or unsanctioned activities (such as illegal dumping) that result in releases of hazardous substances or petroleum to the environment. 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 environmental assessment (due care) activities are necessary to confirm the presence of contamination at suspect areas to determine whether further action is warranted. For example, the illegal dumping of solid waste does not, in and of itself, mean an area is contaminated. An area containing solid waste with no release of hazardous substances or petroleum to the environment would not be an EDL.

Currently, each bureau implements a process for identifying EDLs. 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 Department bureaus identify and report EDLs consistently, bureau-specific EDL identification processes will meet, at a minimum, the following criteria:

- A site that is suspected to be contaminated based on known past activities or observed physical indicators, but where due care has not been conducted, will be identified as a Location of Concern (LOC) (see Section 2.1).
- A site WILL NOT be identified as an EDL 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).

In general, environmental compliance and operation and maintenance (O & M) activities are NOT considered EDLs. Examples of activities that are NOT EDLs 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 (with the exception of 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 (installation of leak detectors, upgrading fill pipes, tank replacements, etc.);
- Physical hazards (e.g., mine adits);
- Physical parameter criteria (e.g., surface water turbidity, dissolved oxygen, biological oxygen demand, pH).

2.1 Environmental Location of Concern

The process for identifying LOCs will vary among bureaus because of different organizational structures, operations, geographic areas, and resources. However, each bureau will examine property/facility inventories, and conduct land reconnaissance. Bureaus are expected to work with other federal or state agencies, and local governments and communities to identify LOCs on Department land, as well as to discuss the progress of cleanups.

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 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:

- Sufficient evidence exists that the site is an EDL;
- It can be further evaluated or cleaned up using existing O&M or infrastructure funds; or
- 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.

Until a site is determined to be an EDL site, O&M or infrastructure 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, the area will be identified as an LOC. The anticipated costs associated with conducting due care 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 LOCs. Appendix A 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 LOC will 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 selected 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 LOC will become an EDL site. 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 or infrastructure funds, then the LOC is NOT an EDL.

The date and results of the due care conducted and actions performed will be documented and retained in bureau files.

2.2 Deconstruction and Renovation Activities

Many building materials used in the construction or renovation of Department (bureaus) facilities contain hazardous substances (e.g., asbestos, paint containing heavy metals). These building materials, while in an undisturbed or encapsulated state (e.g. non-friable asbestos, not flaking), do not pose a health risk and are not subject to cleanup under applicable environmental laws. The generally-recognized best management practice for such materials is to monitor them, but leave them undisturbed. Only if they become friable and are released to the environment would they be considered contaminants requiring cleanup and identified as an EDL.

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 ACM (Technical Bulletin 2006-1). The initial requirement was for federal entities to report their asbestos liabilities starting with the first quarter of fiscal year (FY) 2010 (Technical Bulletin 2006-1). Subsequently, the asbestos liability reporting requirement was deferred to the first

quarter FY 2012 (Technical Bulletin 2009-1) and then again to the first quarter FY 2013 (Technical Bulletin 2011-2). The Department considers asbestos that has been released to the environment an EDL. ACM (whether it contains friable or non-friable asbestos materials) that is in good physical condition (i.e., no release of asbestos to the environment) is considered an asbestos liability. The Department has developed separate asbestos liability guidance that provides bureaus with a methodology for calculating, documenting and reporting their asbestos liability. Asbestos liabilities will be reported separately from EDLs.

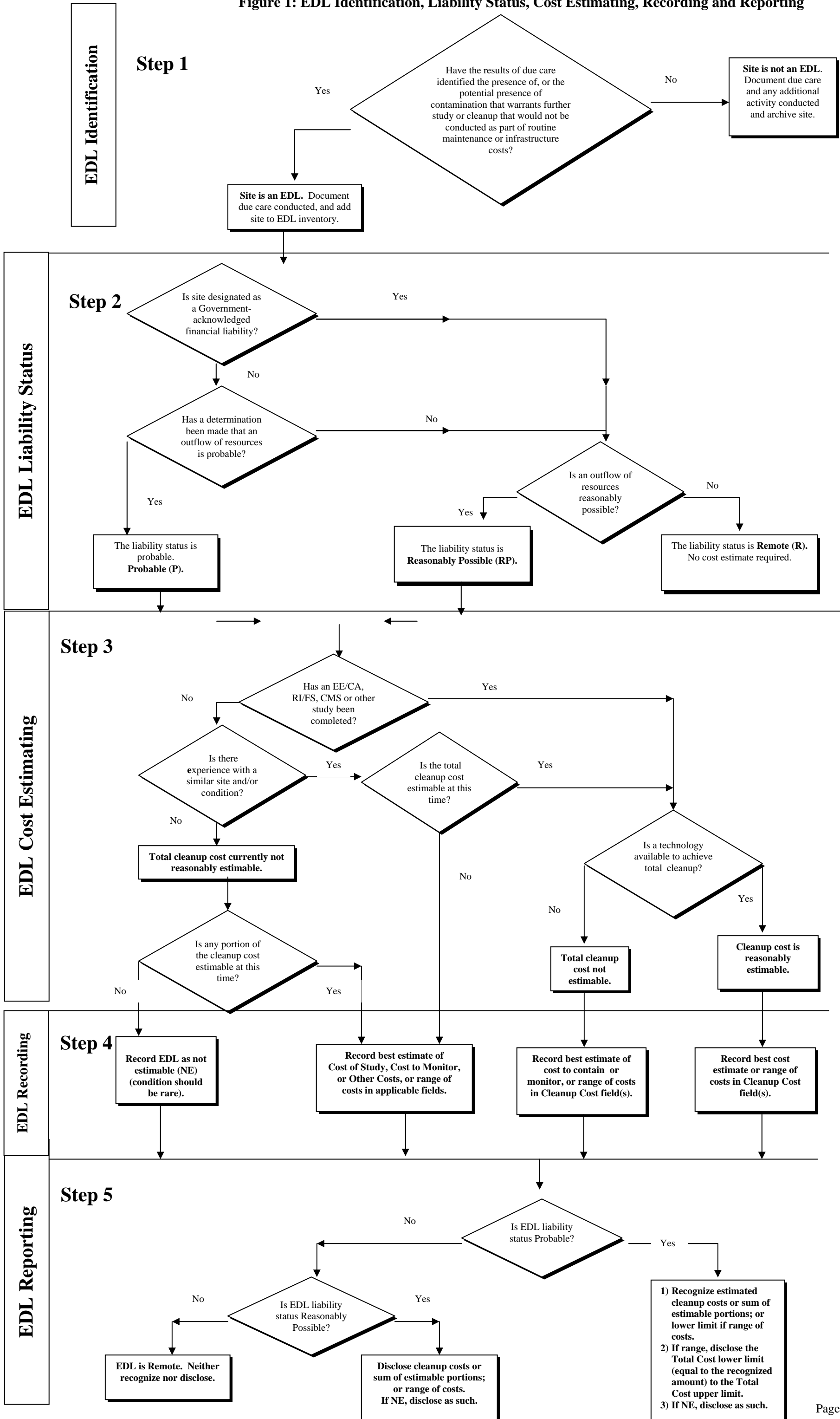
If building materials containing hazardous substances (e.g., asbestos, heavy metals in paint, or other) are in poor condition and a release to the environment has occurred at a concentration that requires further study or future cleanup, then the release site will be identified as an EDL unless the release site can be cleaned up using existing O&M or infrastructure funds, as stated in Section 2.1.

2.3 Environmental and Disposal Liabilities

The process that the Department and its bureaus will use to identify and report an EDL is illustrated in Figure 1 on the following page. A LOC 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, and the cleanup is not part of routine O&M or infrastructure activities, as stated in Section 2.1.

As discussed in Section 2.1 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 LOC meets the criteria of an EDL, it will be tracked in the Department's EDL database module as an EDL. If however, the LOC does not meet the criteria of an EDL, no further action is required.

Figure 1: EDL Identification, Liability Status, Cost Estimating, Recording and Reporting



3.0 LIABILITY STATUS

Once an EDL has been identified, its liability status will be determined. An EDL'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).

Often, the Department and its bureaus incur costs to study or cleanup contamination at an EDL site in order to protect public health and the environment even though a determination regarding the Department's or bureaus' legal liability has not been decided. The Department has the right to pursue cost recovery from responsible parties for costs incurred and hold responsible parties accountable for future cleanups. However 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, except when an agreement, order or other legally-binding document exists at the time when determining the liability status of planned cleanup activities. The terms and conditions of the existing agreement or other legally-binding document govern the estimated amount reported or disclosed. Bureau environmental managers and accountants should consult with the Office of the Solicitor to reach conclusions on the likelihood of a legal liability, or the status of a legally-binding agreement, order, or other document. 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/office should contact the appropriate Regional Solicitor's Office. Contact information can be found at <http://www.doi.gov/solicitor/index.html>.

3.1 Probable

An EDL 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,
- c. The bureau has agreed to assume responsibility for cleanup costs in an interagency agreement, settlement agreement, or similar legally-binding document, or,
- d. The bureau is required to incur cleanup costs under a court decision or administrative order.

In general, 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*, unless the cleanup action is government acknowledged (see Section 3.2, Reasonably Possible). 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 a determination has not been made regarding whether any of the criteria for *probable* apply (Section 3.1. a through d), but the likelihood that a future outflow or other sacrifice of resources will be required is less than *probable* but greater than *remote*.

The EDL process involves uncertainty; therefore, there are circumstances where the likelihood of a future outflow of resources is not obvious. For example, contamination may be present on a bureau's land, but the bureau has not determined whether they caused or contributed to the contamination (e.g., a potential upgradient source that may have migrated on to bureau land). If no cleanup action is currently planned, the bureau may classify this site as a *reasonably possible* (or *remote*) likelihood of incurring future cost.

Additionally, if a responsible party(ies) is or will be actively cleaning up the contamination and incurring all the costs, but the viability of the responsible party(ies) is questionable, the bureau may classify the site as a *reasonably possible* likelihood of incurring future costs.

Government acknowledged financial responsibilities do not meet the criteria necessary to be recognized as a future liability (i.e., a *probable* EDL). A government acknowledged financial responsibility occurs when the Department (its bureaus) **did not** cause or contribute to the contamination and it **is not otherwise liable** for the cleanup costs under 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 or cleanups associated with natural disasters. The Department's liability for government acknowledged events is limited to the funds appropriated for the cleanup and only to the extent of costs incurred. The Department has determined that future costs at government acknowledged sites may be disclosed in the note to the financial statements as *reasonably possible*.

Abandoned Mine Lands (AMLs) are government acknowledged sites if the bureau did not cause or contribute to the contamination present. AMLs are defined as areas located on public lands managed by the Department and 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. Under the 1872 Mining Law, miners could stake a mining claim on public lands and extract mineral resources without the permission or the control of the Federal government, which held bare legal title to the public lands on which the mining occurred. Some decisions in Federal Courts have recognized that the Federal land managing agency should not be held liable under these circumstances. As such, AMLs are considered government acknowledged and recorded as *reasonably possible* EDLs, unless the bureau chooses to recognize the cleanup costs as *probable*.

If, however, a bureau becomes legally required to cleanup 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 has a liability status of *remote* if a determination has not been made regarding whether any of the criteria for *probable* apply (Section 3.1. a through d), but the likelihood that a future outflow or other sacrifice of resources will be required is slight (less than *reasonably possible*).

Examples of *remote* EDLs include:

- Where a viable responsible party(ies) is or will be actively cleaning up the contamination and incurring all the costs,
- Locations where contamination is unlikely to affect human health or pose a risk to the environment, (cleanup is not warranted), or
- Additional expenditures are not expected to occur at the site, but information has not been received (e.g., closure letter from the regulating agency) to document and support removing the site from the EDL report.

4.0 EDL COST ESTIMATING

If an EDL has a liability status of *probable* or *reasonably possible*, every effort should be made to develop a total cleanup cost estimate, if it is reasonable to do so. The EDL 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 at the time the financial report is due, a 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 at the time the financial report is due, the bureau should document that a cost estimate cannot be made at this time and the reason why. 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 between identification and reporting to develop a cost 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's within one fiscal year of identification. The Department does not require cost estimates to be developed for EDLs 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.

Step 3 of Figure 1 illustrates the application of these tests. 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.

The following discusses the three key factors:

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 EDLs where a comprehensive study has been completed (see Section 4.2).

If the results of the study indicate that no contamination exists or the bureau determines that no further action is warranted, then an EDL does not exist and the EDL will be removed from the Department's EDL inventory. The justification for removing the EDL from the inventory must be documented.

2. **Experience With Similar Site and/or Conditions:** If no study has been completed, the next test 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 there is a similar site or condition with experience gained (through actual cleanup and/or a completed study), the EDL cost estimate for a site could be based on the similar experience 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 the 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, landfill) with comparable assumptions (e.g., comparable climates, comparable size, comparable contaminants) can be used as a single cost estimate, or a range of cost estimates developed for similar site types could be recorded. 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 total 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.

4.2 Elements of the Cost Estimate

EDL cost 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 or infrastructure would not be considered an EDL. Additionally, environmental sampling, analysis and reporting required under a RCRA permit during operation would not be an EDL.

EDL cost 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 (including O&M costs of cleanup systems) 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 EDL.
- Machinery and equipment dedicated to a response action (removal or remedial) that do not have alternative uses, and their associated operating and maintenance costs would be an EDL cost element.
- Compensation and benefits of government personnel that devote significant time to an environmental cleanup effort would be an EDL cost element.
- Site restoration activities conducted as part of an environmental cleanup would be an EDL cost element.
- Interim cleanups such as converting a firing range to a 'green' range.
- Long-term monitoring (LTM) associated with a response action would be an EDL cost element.

4.3 Development of Cleanup Actions Cost Estimates

The Department requires bureaus to develop a total cleanup cost estimate for *probable* and *reasonably possible* EDLs within one fiscal year of identification. If a total cleanup cost 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 (e.g., the cost to study, interim cleanup activities).

4.3.1 Total Cleanup Cost Estimates

Estimates should be calculated for the total site cleanup cost, or for a range of the total cleanup costs. A range of the total cleanup costs 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 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 must be documented.

If the preferred cleanup alternative has been selected, the total cleanup cost 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 total cleanup cost estimate can be developed based on professional engineering judgment and similarities with other site conditions, the bureau should develop a total cleanup cost 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 must be documented. Bureaus are encouraged to develop total cleanup cost estimates even if the preferred alternative has not been selected. These cost estimates will be used for reporting contingent liabilities 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.

4.3.2 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 (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 an EE/CA, RI/FS, CMS, 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 module.

4.3.3 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 4.4, Cost Estimate Documentation).

If a cost model is used for estimating EDL 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 B)
- 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/ecanalysisystem.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 US 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 from Assistant Secretary, PMB dated June 20, 2005 in Section 1.1).

4.3.4 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 as additional information is obtained. Even if no new site information has been obtained and no cleanup activities have occurred, the existing cost estimate will be reviewed at least annually

and adjusted for inflation (once annually). Any changes to the estimate must be documented in the detailed backup materials that support the cost estimate (Section 4.4).

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).

At the beginning of the fiscal year, cost estimates generated in previous fiscal years should be inflated to reflect current costs. The Department currently applies a five-year average inflation factor, based on inflation factors developed by the State of Arkansas Department of Environmental Quality (ADEQ) to adjust environmental cleanup cost-to-complete estimates. PFM calculates the annual inflation factor by averaging the previous five years inflation factors posted on ADEQ's website: (www.adeq.state.ar.us/hazwaste/branch_programs/rcra_financial_assurance.htm) and provides it to the bureaus. The Department incorporates the applicable inflation factor into the Department's EDL database module (Section 5.1, EDL Recording) 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 using cost estimating software should be aware if their cost estimates have inflation built into their estimate or not. In the case where inflation is built into the cost estimates, 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 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 Inflation Factors memorandum from PFM/OEPC referenced in Section 1.1 for further details.

4.4 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 will 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 C) 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, annual O&M costs, 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. The EDL Cost Estimate Documentation Sheet is also available directly from the Cost Estimate module of the Department's EDL database module.

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

4.5 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 module 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 module (Section 5.0).

5.0 EDL RECORDING AND REPORTING

Each bureau must provide the PFM and the OEPC with information on their estimated EDLs to be used in preparing quarterly and annual financial statements no later than one week before the end of each quarter. To facilitate the recording, tracking and reporting of EDLs, the Department has developed an EDL database module. Bureaus were required to utilize the Department's EDL database module for the recording, tracking and reporting of EDLs starting in the third quarter, fiscal year 2006.

5.1 EDL Recording

The term "record" as used here refers to the information documented in the Department's EDL database module. This EDL database module is part of the Department's Environmental Management Information System (EMIS) located on the Department's intranet at the universal resource locator (URL) <http://ecl.doi.gov>. The EDL database module 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 administrator. Training on how to use the EDL database module can be requested by contacting OEPC directly. Within the EDL database module, there is also an EDL tutorial which provides background information about EDL issues, as well as, instructions on using the database. Included within these instructions are screen shots of the module itself to help guide a user.

New EDL sites can be recorded into the EDL database module 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 module. At the start of the first business day of the new quarter, OEPC personnel "freeze" (archive) the current 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 next financial statement (for the current, active quarter) can be made at any time during the current, active quarter by approved users. Bureau administrators will be responsible for approving all data that are reported on the financial statements and archived. 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 recorded in the Department's EDL database module.

In order for Department personnel and bureau users to track the progress of cleanup at EDL 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)
- 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 Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) 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 3.0, Liability Status.

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

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.

5.2 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. EDL cost estimate reporting is illustrated in Figure 1, Step 5. The estimated recognized or disclosed amounts are obtained from reports generated from the Department’s EDL database module. 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 module 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.

5.2.1 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 [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 module is designed to calculate the amount to recognize on financial statements. The recognized amount can be calculated for each site, each bureau, and for all bureaus (the Department). For EDLs 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, equal to the Total Cost LL, would be included in the amount recognized.

5.2.2 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, and illustrated in Figure 2, Step 5.

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 module has been designed to calculate the estimated loss amount that is disclosed in notes in the financial statements. The disclosed amount range can be 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.

5.2.3 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.

6.0 EDL PRIORITIZATION PROCESS

All bureaus must rank and prioritize their EDL sites and record the results in the Department's EDL database module. This prioritization process nationally ranks the Department's contaminated sites as Priority 1, 2, or 3 and meets the Department's objective of identifying the most critical sites. This directive is detailed in Environmental Compliance Memorandum (ECM) 07-4 issued by OEPC on December 21, 2007.

This prioritization system is a Department management tool. Although it resides in the EDL database module, it is not part of the environmental contingency liability process. Therefore, it is not subject to review by financial auditors and is not part of the routing/review process for sites.

Bureaus may use their own existing ranking system as long as they incorporate the Department's key elements, which include consideration of human health and environmental risk and legal factors. Bureaus that do not have a ranking system, or have a system that is missing the Department's key elements, must either develop a compliant ranking scheme or use the Department's EDL ranking tool (Appendix D). In any event, bureaus must then categorize their sites as Priority 1, 2 or 3. The personnel responsible for completing the ranking tool and the prioritization of each site are selected at the discretion of individual bureaus.

6.1 Procedures for EDL Site Prioritization

Step 1 - Numerical Ranking – Bureaus must rank their sites based on the key elements of consideration of human health and environmental risk, and legal factors. This results in all sites within a bureau being ranked in an ordinal fashion.

Step 2 - Categorize Sites as Priority 1, 2, or 3 - Based on the ranking results, the bureaus categorize their EDL sites as Priority 1, Priority 2, or Priority 3. Priority 1 sites represent the highest priority sites based on potential risk. The bureaus provide OEPC a brief description for their categorization based on their ranking process.

Step 3 - Verify Financial Liability Status – Bureaus verify that Priority 1 sites have a corresponding *probable* liability status. Priority 1 sites that are not *probable* would require a defensible reason (e.g., a legally-binding agreement with a responsible party conducting the cleanup, including bureau oversight costs) documented in the Department's EDL database module. It is likely that CHF sites will have a high rank and a corresponding *probable* liability, with the possible exception of AML sites and sites with responsible party agreements.

Sites with a *reasonably possible* or *remote* liability status (recognizing exceptions as cited above) will likely have a lower ranking than sites with a *probable* liability status, with some exceptions including AML sites.

Step 4 - Document Prioritization Results – Bureaus document the numerical ranking result and prioritization category for each EDL site in the Department's EDL database module. It is the responsibility of each bureau to ensure that all EDLs have an associated prioritization. High ranked sites that do not have a corresponding *probable* liability must have a defensible reason for the lower liability status documented in the EDL database module. Bureaus are required to

review and revise, as appropriate, this information in the EDL database module by the end of the fourth quarter of each fiscal year. A bureau may determine to adjust the ranking of a site at the completion of key stages, such as the original project start up, completion of the study; completion of the construction activities; and then project completion.

Environmental and Disposal Liabilities
Identification, Documentation and Reporting Handbook v 3.0
Appendices

Appendix A

Sample Due Care Worksheet

Due Care Documentation Sheet

1.	Bureau	Select ▼	
2.	Date reported:		
	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 Quarter	Select Quarter ▼	Select FY ▼
5.	Facility/Site Name		
6.	Facility ID Number		
7.	Location Description		
8.	City / State (XX)		
9.	Longitude/Latitude (in Decimal Degrees)		Conversion Note ▼
10.	GPS coordinates		
11.	Site Type / Source	Select ▼	
12.	Describe the abnormal physical conditions observed (text format).		
13.	Due Care Status	Select Status ▼	
14.	Due Care Scheduled Date	Select ▼	
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:		Disposition ▼
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)		

Data Elements

Select ▼

BIA
BLM
BOR
FWS
NPS
USGS

Select Quarter ▼

1st Quarter
2nd Quarter
3rd Quarter
4th Quarter

Select FY ▼

2006
2007
2008
2009
2010

Conversion Note ▼

Convert Degrees, Minutes, Seconds to Decimal Degrees by dividing the minutes by 60 and the seconds by 3600 and adding to the degrees (e.g. 40 + 12'/60 + 50"/3600 = 40.2138889DD)

Select ▼

Abandoned Mine/Mineral Processing Mill/ Tailings
Abandoned Oil, Gas or Fluid Well(s)
Active Mine/Mineral Processing Mill/ Tailings
Active Oil, Gas or Fluid Well(s)
Acquired Federal Facility
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)

Select Status ▼

Schedule Planning
Scheduled
Completed

Select ▼

Not Yet Scheduled
Within a FY
Within 3 FYs
Within 5 FYs

Disposition ▼

Further study or cleanup is warranted. Site is an EDL.
Move site to EDL inventory.
No further study or cleanup is warranted. Site is NOT an EDL. Remove site from LOC inventory.

Appendix B

Cost Estimating Guides / References

Appendix B. Cost Estimating Guides/References Updated December 2011

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)

Code of Federal Regulations (CFR). Title 40, Part 300. National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (<http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>)
Subchapter J

Department of Defense, *Environmental Liabilities Best Practices Guide*, May 2006

Department of Defense, *Environmental Restoration Program (DERP) Manual*, September 2001

Federal Aviation Administration (FAA), *Standard Procedures for Environmental Cleanup Program Cost Estimation*, July 28, 2008

National Archives and Records Administration, *General Records Schedules, Transmittal No. 22*, April 2010. Access at <http://www.archives.gov/records-mgmt/grs/grs16.html> on 1 June 2011

Project Time & Cost, Inc. *Tri-Service Parametric Model Specification Standard* (Developed for the U.S. Army, U.S. Air Force, and U.S. Navy. DACA67-96-D-1015), April 1999

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) (<http://www.epa.gov/superfund/resources/remedy/pdf/540g-89004-s.pdf>)

United States Environmental Protection Agency. April 1990. A Guide to Selecting Superfund Remedial Actions. OSWER Publication 9335.0-27FS. (USEPA 1990). (http://www.epa.gov/superfund/tools/topics/relocation/gui_sel.htm)

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). (<http://www.epa.gov/superfund/>)

United States Environmental Protection Agency. September 1996. The Role of Cost in the Superfund Remedy Selection Process. Quick Reference Fact Sheet. (USEPA 1996). (http://www.epa.gov/superfund/resources/cost_dir/index.htm)

United States Environmental Protection Agency. August 1997. Rules of Thumb for Superfund Remedy Selection. (USEPA 1997). (<http://www.epa.gov/superfund/resources/rules/index.htm>)

US Air Force. *AF/A7C Cost Estimating and Internal Management Control (ACE-IMC) Guide*, May 2007

United States Environmental Protection Agency. February 1999. Scopers Notes – An RI/FS Costing Guide. Bringing in a Quality RI/FS on Time and Within Budget. EPA/540/G-90/002. (USEPA 1999). (<http://www.epa.gov/superfund/action/guidance/remedy/supersede.htm>)

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). (<http://www.epa.gov/superfund/resources/remedy/rods/index.htm>)

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). (<http://www.epa.gov/superfund/action/guidance/remedy/supersede.htm>)

Appendix C

EDL Cost Estimate Documentation Sheet

EDL Cost Estimate Documentation Sheet
(Updated December 2011)

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** _____

8. Site /Sub-area Type	<p align="center">Select Applicable</p> <ul style="list-style-type: none"> Abandoned Mine/Mineral Processing Mill/ Tailings <input type="checkbox"/> Abandoned Oil, Gas or Fluid Well(s) <input type="checkbox"/> Active Mine/Mineral Processing Mill/ Tailings <input type="checkbox"/> Active Oil, Gas or Fluid Well(s) <input type="checkbox"/> Acquired Federal Facility <input type="checkbox"/> Acquired Industrial Facility <input type="checkbox"/> Acquired Private Property <input type="checkbox"/> Agricultural / Dip Vats <input type="checkbox"/> Airfield <input type="checkbox"/> DOI Facility <input type="checkbox"/> Illegal Dumping / Burning of Hazardous Substances <input type="checkbox"/> Improper Disposal <input type="checkbox"/> Firing Range <input type="checkbox"/> Landfill/Dump <input type="checkbox"/> Leaking Aboveground Storage Tank(s) <input type="checkbox"/> Leaking Underground Storage Tank(s) <input type="checkbox"/> Mixed Federal Industrial Facility <input type="checkbox"/> Pipeline Leaks/Spills <input type="checkbox"/> Reserve or Treatment Pit <input type="checkbox"/> School / Buildings <input type="checkbox"/> Spills <input type="checkbox"/> Utilities <input type="checkbox"/> Other (specify below) <input type="checkbox"/> 	Date	<p align="center">Select Affected Media</p> <ul style="list-style-type: none"> Air <input type="checkbox"/> Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Groundwater <input type="checkbox"/> Surface Water <input type="checkbox"/>
-------------------------------	--	-------------	---

9. Potential Primary Contaminants of Concern (select up to 4 contaminants) (pull down)

a.	
b.	
c.	
d.	

10. Site Description (text format)

a. Site Location

b. Site History

c. Contamination Identified

d. Cleanup Accomplished To Date

e. Remaining Cleanup Requirements (subject of this estimate)

11. What stage in the cleanup action process is currently in progress? (check appropriate stage)

a. Due care complete. Site/Sub-area identified as an EDL, but no other activity.

b. Studies/investigations (specify, e.g., PA, RI, FS, CMS, etc.) _____

c. Remedial / Removal Action or equivalent (includes design and construction)

d.

O&M (applicable after remedy has achieved cleanup action goals and determined operational and functional, or 1 year after construction [whichever is earlier] except for water treatment alternatives)

e. LTM (long-term monitoring)

Note: Under CERCLA, groundwater and surface water treatment actions to restore water quality to a protected level is considered part of the remedial action for the 1st 10 years of operation, and O&M for any additional years.

12. Last cleanup action document approved by EPA, State, or Other _____

13. Is the total cleanup cost estimable at this time? (check appropriate)

Yes

No

14. If response to 13 is yes, go to 18. If no, proceed to 15.

15. Is any portion of the total cleanup cost (interim response activities) estimable at this time?

Yes

No

16. If response to 15 is yes, go to 18 then 21. If no, proceed to 17.

17. Provide the basis for no portion of the cleanup cost estimable at this time.

--

18. Select the Cost Estimating Method Used.

IGCE

Contractor Estimate

RACER or Other Cost Model

Professional Judgment / Based on Comparable Site Costs

Other (specify below)

19. **Total Cleanup Cost Estimate: Specify the response alternative used for the basis of the total cleanup cost and complete the cost estimate buildup below.**

Total Cleanup Cost Estimate Buildup						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0
(Add additional work elements as necessary)						
Total Site / Sub-area Cleanup Cost Estimate					\$0	\$0

20. **Total Cleanup Cost Estimate Buildup Assumptions by Work Element**

	Work Element	Assumptions
a.	0	
b.	0	
c.	0	
d.	0	
e.	0	
f.	0	
g.	0	

(Add additional work elements as necessary or separate work sheets)

Cost Estimate Documentation Complete

21. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Cost To Study						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

Cost to Study Estimate

\$0

\$0

22. **Cost to Study Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

23. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Cost To Monitor						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

Cost to Monitor Estimate

\$0

\$0

24. **Cost to Monitor Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

25. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Other Interim Action Cost						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0
(Add additional work elements as necessary)						
Other Cost Estimate					\$0	\$0

26. **Other Interim Action Cost Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

Cost Estimate Documentation Complete

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** _____
- 8. **Site /Sub-area Type** **Select Applicable** _____

- Date** _____
- Select Affected Media**
- Air
 - Soil
 - Sediment
 - Groundwater
 - Surface Water

Abandoned Mine/Mineral Processing Mill/ Tailings	<input type="checkbox"/>
Abandoned Oil, Gas or Fluid Well(s)	<input type="checkbox"/>
Active Mine/Mineral Processing Mill/ Tailings	<input type="checkbox"/>
Active Oil, Gas or Fluid Well(s)	<input type="checkbox"/>
Acquired Federal Facility	<input type="checkbox"/>
Acquired Industrial Facility	<input type="checkbox"/>
Acquired Private Property	<input type="checkbox"/>
Agricultural / Dip Vats	<input type="checkbox"/>
Airfield	<input type="checkbox"/>
DOI Facility	<input type="checkbox"/>
Illegal Dumping / Burning of Hazardous Substances	<input type="checkbox"/>
Improper Disposal	<input type="checkbox"/>
Firing Range	<input type="checkbox"/>
Landfill/Dump	<input type="checkbox"/>
Leaking Aboveground Storage Tank(s)	<input type="checkbox"/>
Leaking Underground Storage Tank(s)	<input type="checkbox"/>
Mixed Federal Industrial Facility	<input type="checkbox"/>
Pipeline Leaks/Spills	<input type="checkbox"/>
Reserve or Treatment Pit	<input type="checkbox"/>
School / Buildings	<input type="checkbox"/>
Spills	<input type="checkbox"/>
Utilities	<input type="checkbox"/>
Other (specify below)	<input type="checkbox"/>

9. Potential Primary Contaminants of Concern (select up to 4 contaminants) (pull down)

a.	
b.	
c.	
d.	

10. State The Problem (text format)

11. What stage in the cleanup action process is currently in progress? (check appropriate stage)

- a. Due care complete. Site/Sub-area identified as an EDL, but no other activity.
- b. Studies/investigations (specify, e.g., PA, RI, FS, CMS, etc.) _____
- c. Remedial / Removal Action or equivalent (includes design and construction)
- d. O&M (applicable after remedy has achieved cleanup action goals and determined operational and functional, or 1 year after construction [whichever is earlier] except for water treatment alternatives)
- e. LTM (long-term monitoring)

Note: Under CERCLA, groundwater and surface water treatment actions to restore water quality to a protected level is considered part of the remedial action for the 1st 10 years of operation, and O&M for any additional years.

12. Last cleanup action document approved by EPA, State, or Other

13. Is the total cleanup cost estimable at this time? (check appropriate)

Yes

No

14. If response to 13 is yes, go to 18. If no, proceed to 15.

15. Is any portion of the total cleanup cost (interim response activities) estimable at this time?

Yes

No

16. If response to 15 is yes, go to 18 then 21. If no, proceed to 17.

17. Provide the basis for no portion of the cleanup cost estimable at this time.

18. Select the Cost Estimating Method Used.

IGCE

Contractor Estimate

RACER or Other Cost Model

Professional Judgment / Based on Comparable Site Costs

Other (specify below)

19. **Total Cleanup Cost Estimate: Specify the response alternative used for the basis of the total cleanup cost and complete the cost estimate buildup below.**

Total Cleanup Cost Estimate Buildup						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0
(Add additional work elements as necessary)						
Total Site / Sub-area Cleanup Cost Estimate					\$0	\$0

20. **Total Cleanup Cost Estimate Buildup Assumptions by Work Element**

	Work Element	Assumptions
a.	0	
b.	0	
c.	0	
d.	0	
e.	0	
f.	0	
g.	0	

(Add additional work elements as necessary or separate work sheets)

Cost Estimate Documentation Complete

21. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Cost To Study						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

Cost to Study Estimate

\$0

\$0

22. **Cost to Study Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

23. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Cost To Monitor						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

Cost to Monitor Estimate

\$0

\$0

24. **Cost to Monitor Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

25. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Other Interim Action Cost						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0
(Add additional work elements as necessary)						
Other Cost Estimate					\$0	\$0

26. **Other Interim Action Cost Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

Cost Estimate Documentation Complete

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).

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** _____

8. Site /Sub-area Type	Select Applicable	Date _____	Select Affected Media
	Abandoned Mine/Mineral Processing Mill/ Tailings		Air <input type="checkbox"/>
	Abandoned Oil, Gas or Fluid Well(s)		Soil <input type="checkbox"/>
	Active Mine/Mineral Processing Mill/ Tailings		Sediment <input type="checkbox"/>
	Active Oil, Gas or Fluid Well(s)		Groundwater <input type="checkbox"/>
	Acquired Federal Facility		Surface Water <input type="checkbox"/>
	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)		

9. **Potential Primary Contaminants of Concern (select up to 4 contaminants) (pull down)** a.

b.	
c.	
d.	

10. State The Problem
(text format)

11. What stage in the cleanup action process is currently in progress? (check appropriate stage)

- a. Due care complete. Site/Sub-area identified as an EDL, but no other activity.
- b. Studies/investigations (specify, e.g., PA, RI, FS, CMS, etc.) _____
- c. Remedial / Removal Action or equivalent (includes design and construction)
- d. O&M (applicable after remedy has achieved cleanup action goals and determined operational and functional, or 1 year after construction [whichever is earlier] except for water treatment alternatives)
- e. LTM (long-term monitoring)

Note: Under CERCLA, groundwater and surface water treatment actions to restore water quality to a protected level is considered part of the remedial action for the 1st 10 years of operation, and O&M for any additional years.

12. Last cleanup action document approved by EPA, State, or Other _____

13. Is the total cleanup cost estimable at this time? (check appropriate)

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

14. If response to 13 is yes, go to 18. If no, proceed to 15.

15. Is any portion of the total cleanup cost (interim response activities) estimable at this time?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

16. If response to 15 is yes, go to 18 then 21. If no, proceed to 17.

17. Provide the basis for no portion of the cleanup cost estimable at this time.

18. Select the Cost Estimating Method Used.

IGCE	<input type="checkbox"/>
Contractor Estimate	<input type="checkbox"/>
RACER or Other Cost Model	<input type="checkbox"/>
Professional Judgment / Based on Comparable Site Costs	<input type="checkbox"/>
Other (specify below)	<input type="checkbox"/>

19. **Total Cleanup Cost Estimate: Specify the response alternative used for the basis of the total cleanup cost and complete the cost estimate buildup below.**

Total Cleanup Cost Estimate Buildup						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0
(Add additional work elements as necessary)						
Total Site / Sub-area Cleanup Cost Estimate					\$0	\$0

20. **Total Cleanup Cost Estimate Buildup Assumptions by Work Element**

	Work Element	Assumptions
a.	0	
b.	0	
c.	0	
d.	0	
e.	0	
f.	0	
g.	0	

(Add additional work elements as necessary or separate work sheets)

Cost Estimate Documentation Complete

21. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Cost To Study						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

Cost to Study Estimate

\$0

\$0

22. **Cost to Study Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

23. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Cost To Monitor						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

Cost to Monitor Estimate

\$0

\$0

24. **Cost to Monitor Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

25. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Other Interim Action Cost						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0
(Add additional work elements as necessary)						
Other Cost Estimate					\$0	\$0

26. **Other Interim Action Cost Estimate Buildup Assumptions by Work Element**

	Work Element	Assumptions
a.	0	
b.	0	
c.	0	
d.	0	
e.	0	
f.	0	
g.	0	

(Add additional work elements as necessary or separate work sheet)

Cost Estimate Documentation Complete

Combined Sub-areas Cleanup or Interim Cleanup Action Cost Estimates

(Updated December 2011)

Current FY Quarter	0	0
Site Name	0	

Total Cleanup Cost Estimate			
No.	Sub-area or Alternative Name	Total Cleanup Cost Estimate	
		Bureau's Cost - Single Amount or Low End if Range (\$ (calculated))	Bureau's Cost - High End if Range (\$ (calculated))
1.	0	\$0	\$0
2.	0	\$0	\$0
3.	0	\$0	\$0
Total Cleanup Cost Estimate		\$0	\$0

Interim Cleanup Action Cost Estimates

Cost To Study Estimate			
No.	Sub-area Name	Cost To Study Estimate	
		Bureau's Cost - Single Amount or Low End if Range (\$ (calculated))	Bureau's Cost - High End if Range (\$ (calculated))
1.	0	\$0	\$0
2.	0	\$0	\$0
3.	0	\$0	\$0
Cost To Study Estimate		\$0	\$0

Cost To Monitor Estimate			
No.	Sub-area Name	Cost To Monitor Estimate	
		Bureau's Cost - Single Amount or Low End if Range (\$ (calculated))	Bureau's Cost - High End if Range (\$ (calculated))
1.	0	\$0	\$0
2.	0	\$0	\$0
3.	0	\$0	\$0
Cost To Monitor Estimate		\$0	\$0

Other Interim Action Cost Estimate			
No.	Sub-area Name	Other Interim Action Cost Estimate	
		Bureau's Cost - Single Amount or Low End if Range (\$ (calculated))	Bureau's Cost - High End if Range (\$ (calculated))
1.	0	\$0	\$0
2.	0	\$0	\$0
3.	0	\$0	\$0
Other Interim Action Cost Estimate		\$0	\$0

Site Cleanup Cost Estimate

	Bureau's Cost - Single Amount or Low End if Range (\$ (calculated))	Bureau's Cost - High End if Range (\$ (calculated))
	\$0	\$0

	Total Studies	
	Work Plan	(Updated December 2011)
Preliminary Assessment =	PA	
Site Inspection =	SI	
Preliminary Assessment / Site Inspection =	PA/SI	
Potentially Responsible Party Activities =	PRP Activities	
Remedial Investigation =	RI	
Feasibility Study =	FS	
Remedial Investigation/Feasibility Study =	RI/FS	
RCRA Facility Investigation =	RFI	
Corrective Measures Study =	CMS	
	Decision Document	
Engineering Evaluation/Cost Analysis =	EE/CA	

Total Remedial Action
 Total Removal Action
 Total Corrective Action
 Remedial Action
 Removal Action
 Corrective Action
 Planning/Design
 Construction
 1st 10 yrs GW or SW monitoring
 O&M

Total Monitoring
 Develop Plan
 Installing GW Wells
 Installing Piezometers
 Installing Other Monitoring Devices
 Sampling & Reporting

Anions (general)
Cyanide
Fluoride
Polychlorinated Dibenzo-Dioxins/Furans (general)
TCDD (2,3,7,8-Tetrachlorodibenzo-p-dioxin)
PeCDD (1,2,3,7,8-Pentachlorodibenzo-p-dioxin)
HxCDD (1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin)
HxCDD (1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin)
HxCDD (1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin)
HpCDD (1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin)
OCDD (1,2,3,4,6,7,8,9-Octochlorodibenzo-p-dioxin)
TCDF (2,3,7,8-Tetrachlorodibenzofuran)
PeCDF (1,2,3,7,8-Pentachlorodibenzofuran)
PeCDF (2,3,4,7,8-Pentachlorodibenzofuran)
HxCDF (1,2,3,6,7,8-Hexachlorodibenzofuran)
HxCDF (1,2,3,7,8,9-Hexachlorodibenzofuran)
HxCDF (1,2,3,4,7,8-Hexachlorodibenzofuran)
HxCDF (2,3,4,6,7,8-Hexachlorodibenzofuran)
HpCDF (1,2,3,4,6,7,8-Heptachlorodibenzofuran)
HpCDF (1,2,3,4,7,8,9-Heptachlorodibenzofuran)
OCDF (1,2,3,4,6,7,8,9-Octochlorodibenzofuran)
Explosives (general)
1,3,5-TNB (1,3,5-Trinitrobenzene)
1,3-DNB (1,3-Dinitrobenzene)
2,4,6-TNT (2,4,6-Trinitrotoluene)
HMX (Octahydro-1,2,5,7-tetranitro-1,3,5,7-tetrazocine)
RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine)
Tetryl (Methyl-2,4,6-trinitrophenylnitramine)
Nitrobenzene
4-Amino-2,6-dinitrotoluene
2-Amino-4,6-dinitrotoluene
2,4-Dinitrotoluene
2,6-Dinitrotoluene
2-Nitrotoluene
3-Nitrotoluene
4-Nitrotoluene
Metals (general)
Aluminum
Antimony
Arsenic
Barium
Beryllium
Boron

Reasons for No Cost Estimable

The presence (Updated December 2011)
The type and extent of contamination has not been determined
The extent of contamination has not been determined

Site is unique. No similar site estimate or actual cost available.

Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Lithium
Magnesium
Manganese
Mercury
Molybdenum
Nickel
Potassium
Selenium
Silver
Sodium
Strontium
Thallium
Vanadium
Zinc
Miscellaneous
Ammonia
Ethanol
Formaldehyde
Isopropanol
Total Dissolved Solids
Total Organic Carbon
Total Suspended Solids
pH
Polynuclear Aromatic Hydrocarbons (PAHs) (general)
Acenaphthene
Acenaphthylene
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Benzo(k)fluoranthene
Chrysene
Dibenzo(a,h)anthracene
Fluoranthene
Fluorene
Indeno(1,2,3-c,d)pyrene
Naphthalene
Phenanthrene
Pyrene
Polychlorinated Biphenyls (PCBs) (general)
Arochlor 1016
Arochlor 1221
Arochlor 1232
Arochlor 1242
Arochlor 1248
Arochlor 1254
Arochlor 1260
Pesticides (general)
4,4'-DDD
4,4'-DDE
4,4'-DDT

Aldrin
alpha-BHC (alpha-HCH)
beta-BHC (beta-HCH)
Chlordane
delta-BHC
Dieldrin
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin
Endrin aldehyde
Endrin ketone
gamma-BHC (Lindane)
Heptachlor
Heptachlor epoxide
Methoxychlor
Toxaphene
Semivolatile Organic Compounds (SVOCs)
(general)
1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,2-Diphenylhydrazine
1,3-Dichlorobenzene
1,4-Dichlorobenzene
1-Methylnaphthalene
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
2-Chloronaphthalene
2-Chlorophenol
2-Methylnaphthalene
2-Methylphenol
2-Nitroaniline
2-Nitrophenol
3,3'-Dichlorobenzidine
3-Nitroaniline
4,6-Dinitro-2-methylphenol
4-Bromophenylphenyl ether
4-Chloro-3-methylphenol
4-Chloroaniline
4-Chlorophenylphenyl ether
4-Methylphenol
4-Nitroaniline
4-Nitrophenol
Acenaphthene
Acenaphthylene
Aniline
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Benzo(k)fluoranthene
Benzoic acid
Benzyl alcohol
bis(2-Chloroethoxy)methane
bis(2-Chloroethyl)ether
bis(2-Chloroisopropyl)ether
bis(2-Ethylhexyl)phthalate
Butylbenzylphthalate

Carbazole
Chrysene
Di-n-butylphthalate
Di-n-octylphthalate
Dibenzo(a,h)anthracene
Dibenzofuran
Diethylphthalate
Dimethylphthalate
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Phenanthrene
Indeno(1,2,3-c,d)pyrene
Isophorone
N-Nitroso-di-n-propylamine
N-Nitrosodimethylamine
N-Nitrosodiphenylamine
Naphthalene
Pentachlorophenol
Phenanthrene
Phenol
Pyrene
Pyridine
Total Petroleum Hydrocarbons (TPH) (general)
Total Extractable Petroleum Hydrocarbon
Total Volatile Petroleum Hydrocarbon
Oil and Grease
Volatile Organic Compounds (VOCs) (general)
1,1,1,2-Tetrachloroethane
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloro-1,2,2-trifluoroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,1-Dichloropropene
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,4-Trimethylbenzene
1,2-Dibromo-3-chloropropane
1,2-Dibromoethane
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloroethene, total
1,2-Dichloropropane
1,3,5-Trimethylbenzene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,4-Dichlorobenzene
2,2-Dichloropropane
2-Butanone
2-Chloroethylvinyl ether
2-Chlorotoluene
2-Hexanone
2-Pentanone
4-Chlorotoluene
4-Methyl-2-pentanone
Acetone
Benzene
Bromobenzene

Bromochloromethane
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromochloromethane
Dibromomethane
Dichlorodifluoromethane
Ethylbenzene
Isopropylbenzene
m-Xylene
Methyl -t-butyl ether
Methylene chloride
n-Butylbenzene
n-Propylbenzene
o-Xylene
p-Xylene
p-Isopropyltoluene
sec-Butylbenzene
Styrene
tert-Butylbenzene
Tetrachloroethene
Toluene
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Trichlorofluoromethane
Vinyl acetate
Vinyl chloride
Xylene (total)
Organophosphorus Herbicides / Pesticides
(general)
Trichlorofon
Famphur
Fenthion
Parathion
Coumaphos
Dimethoate
Dichlorvos
Dioxathion
Azinphos-methyl
Dichlorofenthion
Fensulfothion
Malathion
Fenitrothion
Dicrotophos
Thionazin (aka Zinophos)
Phosphamidon
Methyl parathion
Phorate
Disulfoton
Ronnel
Trichloronate
Diazinon
Chlorfenviphos
Ethion

Chlorothion
Hexamethylphosphoramide
Phosmet
Carbophenothion
Fonofos
Tetrachlorvinphos (aka Stirophos)
EPN
Chlorpyrifos
Aspon
Sulfotepp
Chlorpyrifos-methyl
Monocrotophos
Crotoxyphos
Phosdrin (aka Mevinphos)
Demeton
ENT 27318 (aka Ethoprop)
Chlorinated Herbicides (general)
Dinoseb
2,4-Dichlorophenoxyacetic acid (2,4-D)
Silvex (2,4,5-TP)
Trichlorophenoxyacetic acid (2,4,5-T)
Solvent Extractable Nonvolatile Compounds
Strychnine
Radionuclides (general)
Gross alpha
Gross beta
Gamma radiation
Tritium
Strontium-90
Radium-226/228
Uranium
Hazardous Materials (general)
Asbestos
Lead based paint
Petroleum - Diesel Range Organics (DRO)
Petroleum - Gasoline Range Organics (GRO)

Appendix D

EDL Ranking Tool

EDL Ranking Tool

This ranking tool can be used by bureaus that do not have a ranking process in place or can be modified to meet bureau specific requirements with the Department's approval. This ranking tool pertains to sites that are already identified as an EDL. Sites that are Locations of Concern (LOC) are not to be included. Based on the total score that each site receives, the sites will then be ranked Priority 1, 2, or 3. Sites falling within the 61-100 range are Priority 1. Sites that fall within the 21-60 range are Priority 2. Sites that fall within the 0-20 range are Priority 3.

No.	Ranking Criteria	Yes/No	Score
1	Is the site within ¼ mile of residences or a school; or is the site heavily visited by visitors? (10)		
2	Does the contaminate pose a significant threat to a surface water body or direct access a groundwater aquifer used for drinking water? (10)		
3	Is the site threatened by a contaminate known to be a carcinogenic or toxic substance? (15)		
4	Is there evidence or reason to believe that contamination is migrating or may migrate off bureau-controlled land? (10)		
5	Can the contamination be cleaned up in a single field effort? (8)		
6	Is the site on EPA's National Priorities list? (10)		
7	Is the site on the Federal Agency Hazardous Waste Compliance Docket (Federal Docket)? (6)		
8	Is the cleanup of the site a State priority? (6)		
9	Is the cleanup of the site a bureau priority? (5)		
10	Are interagency agreements, settlement agreements, or other legally-binding documents; a court decision; or administrative order for cleanup actions on bureau-controlled land in place? (15)		
11	Is cleanup (including study) actively underway? (5)		
		Total score:	