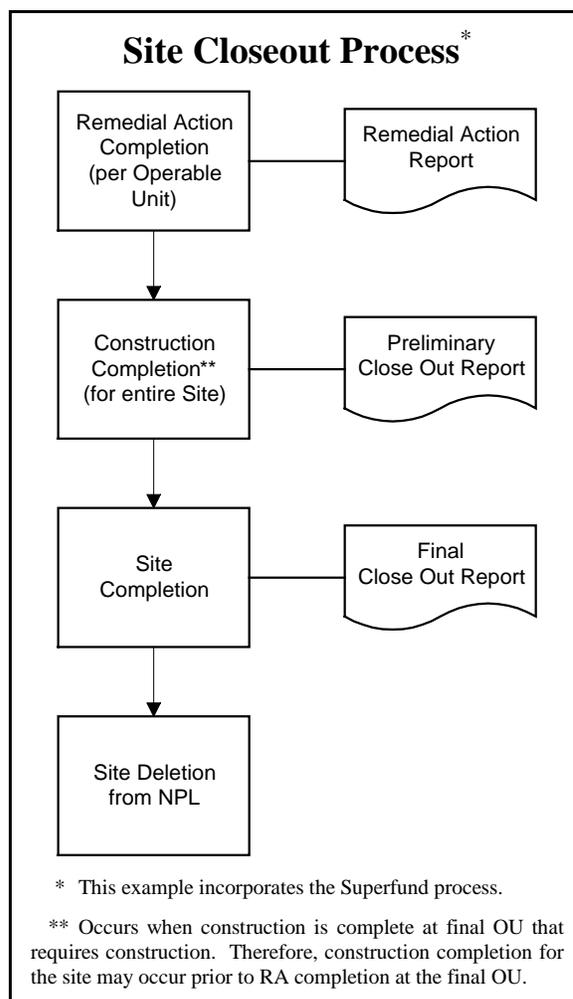


CHAPTER 1 INTRODUCTION

1-1. Purpose.

a. This pamphlet defines the procedures for formally documenting and reporting cost and performance information from U.S. Army Corps of Engineers (USACE) environmental restoration¹ projects and provides guidance to the project team for scoping the types of data to collect and how they are presented. Customers must have complete, accurate, and timely information for proper operation and maintenance, as a baseline for system modifications and optimization, and to document information that may be used in conjunction with a long-term response action or recurring review. This information will also address information to plan and tailor their site completion and individual operable units (OUs) for site closeout.

b. This pamphlet, or guide, provides a current reference for preparing and reviewing remedial action (RA) reports at the completion of remedial action at a waste site operable unit. The goals of this guide include improving the consistency and completeness of RA reports while ensuring that key observations and lessons learned during remedy implementation, including cost and performance data, are adequately documented. Specifically, this guide is intended to ensure that sufficiently detailed RA cost data is furnished for input into the Historical Cost Analysis System (HCAS) which requires the use of the Hazardous, Toxic, and Radioactive Waste (HTRW) RA work breakdown structure (WBS).



¹ As used by this guide, “environmental restoration” refers to the Superfund programs operated under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 and the Superfund Amendments and Reauthorization Act (SARA) of 1986. In many cases there is not a straightforward relationship between the U.S. Environmental Protection Agency (EPA) Superfund and Department of Defense (DoD) terms. Users of this document should recognize that in most cases, these requirements may not be consistent with other programs. The environmental project team should discuss, plan, and tailor their site documentation efforts to facilitate the environmental requirements at their site.

c. This guide is intended to assist in the preparation, review, or use of RA reports for environmental restoration projects by cost engineers, environmental engineers, resident construction managers, project managers, remedial project managers (RPMs), program managers, and other related technical disciplines.

1-2. Applicability. This pamphlet applies to all USACE commands having investigation, design, and remedial action responsibility for environmental restoration projects within the military, civil works, or support for others programs.

1-3. Scope. This pamphlet is a companion document to *A Guide for Preparing and Reviewing Remedial Action Reports* developed jointly by the U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (USEPA). The primary difference between these two documents is the cost reporting format. Both documents incorporate selected guidance from the *Guide to Documenting and Managing Cost and Performance Information for Remediation Projects* (EPA 542-B-98-007, October 1998). This guide does not address construction completion, site completion, or site deletion from the National Priorities List (NPL). For information on these issues refer to *Close Out Procedures for National Priorities List Sites* (EPA 540-R-98-016, January 2000). Although much of this guide is written from the perspective of a Superfund site listed on the NPL, the presented concepts could also be applied to non-NPL sites or other cleanup programs.

1-4. References. The following documents provide additional information related to the subject of this pamphlet.

- a. ER 5-1-11. Program and Project Management.
- b. ER 415-345-38. Transfer and Warranties.
- c. ER 1110-3-1301. Hazardous, Toxic, and Radioactive Waste (HTRW) Cost Engineering.
- d. CEGS 01070. Cost and Performance Report.
- e. CEGS 01440. Contractor Quality Control.
- f. CEGS 01450. Chemical Data Quality Control.
- g. Standard Industrial Classification Manual. 1987.
- h. 40 CFR Part 300. National Oil and Hazardous Substances Pollution Contingency Plan (NCP). (<http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-J.htm>)
- i. EPA 540-F-93-048. Presumptive Remedies: Site Characterization and Technology Selection for CERCLA Site with Volatile Organic Compounds in Soils. U.S. Environmental Protection Agency. September 1993.

j. EPA/542/B-94/013. Remediation Technologies Screening Matrix and Reference Guide, Second Edition. Federal Remediation Technologies Roundtable. October 1994.

k. EPA/540/G-89/004. Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA. Interim Final. U.S. Environmental Protection Agency. October 1988.

l. OSWER 9335.0-27FS. A Guide to Selecting Superfund Remedial Actions. U.S. Environmental Protection Agency. April 1990.

m. EPA 540/F-96/018. The Role of Cost in the Superfund Remedy Selection Process. Quick Reference Fact Sheet. U.S. Environmental Protection Agency. September 1996. (http://www.epa.gov/superfund/resources/cost_dir/index.htm)

n. EPA 540-R-97-013. Rules of Thumb for Superfund Remedy Selection. U.S. Environmental Protection Agency. August 1997. (<http://www.epa.gov/superfund/resources/rules/index.htm>)

o. EPA 542-B-98-007. Guide to Documenting and Managing Cost and Performance Information for Remediation Projects. U.S. Environmental Protection Agency. October 1998. (<http://www.frtr.gov/cost/>)

p. EPA/540/R-98/031. A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents. U.S. Environmental Protection Agency. July 1999. (<http://www.epa.gov/superfund/resources/remedy/rods/index.htm>)

q. EPA 540-R-98-016. Close Out Procedures for National Priorities List Sites. U.S. Environmental Protection Agency. January 2000. (<http://www.epa.gov/superfund/resources/closeout/index.htm>)

r. EPA 540-R-00-002. A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. U.S. Environmental Protection Agency. July 2000. (<http://www.epa.gov/superfund/resources/remedy/costest.htm>)

1-5. Organization. This guide is intended to provide the user with the basic information necessary to complete or review the RA report for a given OU at a site. Throughout the guide, exhibits help illustrate the concepts discussed, while highlight boxes are used to provide information that is important to note, but not necessarily central to the discussion at hand. The objectives of each chapter and appendix are listed below.

a. Chapter 1: Introduce the guide, including its purpose, scope, and use.

b. Chapter 2: Provide background information on RAs, including the Superfund process, RA process, and RA completion.

- c. Chapter 3: Provide RA reporting criteria, including who should prepare the RA report, timing of submittals, distribution, approval criteria, and a checklist of RA report components.
- d. Chapter 4: Describe the components of the recommended RA report format and describe the information that should be included in each component.
- e. Chapter 5: Provide information on how to document technology performance in the RA report.
- f. Chapter 6: Provide information on how to document project costs in the RA report.
- g. Appendix A: Provide a glossary of environmental restoration terms used in the guide.
- h. Appendix B: Present an example RA report for the case of ex situ soil remediation using incineration.
- i. Appendix C: Present an example RA report for a combination of in situ soil and groundwater remediation using soil vapor extraction and air sparging.
- j. Appendix D: Provide example templates for reporting costs for HCAS data entry.