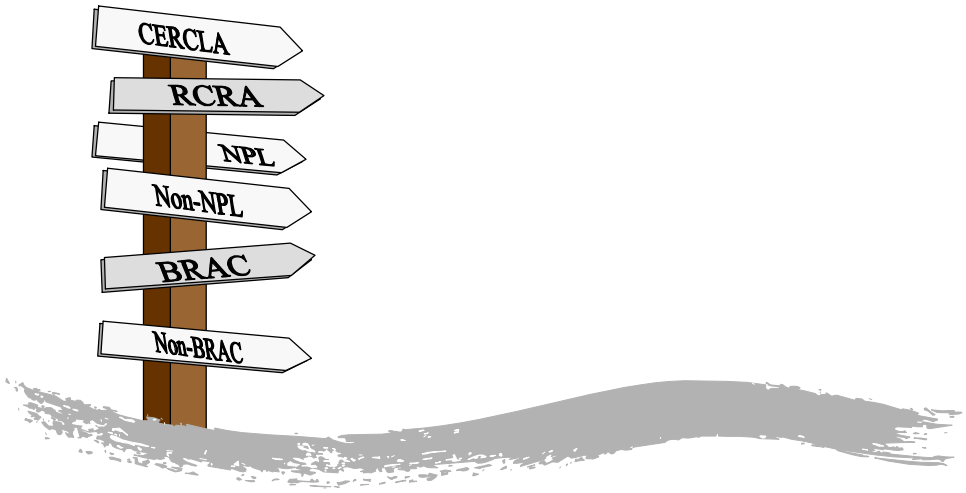
THE ENVIRONMENTAL SITE CLOSEOUT PROCESS GUIDE

Defining the process after cleanup decisions have been made



This guide consolidates the existing statutory and regulatory requirements affecting the closeout of sites under the Defense Environmental Restoration Program, and will be updated, as necessary, to reflect experience in its implementation.

SEPTEMBER 1999

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PREFACE

After nearly two decades of effort and an investment of billions of dollars, the Department of Defense's environmental cleanup program is moving toward site closeout at many of its installations. "Site Closeout" refers to the point at which the Department of Defense (DoD) will no longer engage in active management or monitoring at an environmental restoration site, and no additional environmental funds will be expended unless the need for additional remedial action is demonstrated.

The initial focus of the cleanup program was on finding sites with problems (site identification), determining how best to handle cleanup at these sites (remedy selection), determining which sites to clean up first (risk-based prioritization), and beginning the cleanup process (remediation design and construction). The "site closeout process" refers to the steps in the cleanup process after the cleanup decision has been made, from initiation to completion of remedial action.

Today the DoD's progress can be measured by the number of installations with Remedies in Place (RIPs) and the number of sites categorized as Response Complete (RC), meaning that DoD is reaching the last milestones in the lengthy cleanup process.

This guide was developed by a working group with representation from the Office of the Secretary of Defense, the DoD Components, the Environmental Protection Agency (EPA), state officials, and the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) Federal Facilities Base Closure Working Group. Participants met monthly to: discuss and evaluate existing environmental site closeout requirements; represent their organizational interests; arrive at a common understanding of terms, milestones, and phases; and define an overall site closeout process that builds on cleanup efforts to date. This guide also received valuable input from individual site remedial project teams, such as BRAC Cleanup Teams, who will be the personnel utilizing the information within.

Since its initial conception, this Guide, and the overall Environmental Site Closeout Process it describes, has been briefed to a variety of organizations and at various forums, including: ASTSWMO; the Deputy Assistant Secretaries of the Air Force for Installations (SAF/MII) and Environment, Safety, and Occupational Health (SAF/MIQ); the annual DoD-community base closure conference; the DoD Cleanup Committee; the Federal Facilities Leadership Council; the EPA Office of Emergency and Remedial Response (OERR); EPA Region 9 and the State of California; and all three 1998 BRAC Cleanup Team Workshops. These forums served to disseminate information about the concept and content of the Guide and the process, and solicited input and feedback from the diverse audiences.

1.0 INTRODUCTION

1.1 Purpose and Background

The purpose of this guide is to consolidate into one working document the existing statutory and regulatory requirements that affect the closeout of sites under the Department of Defense (DoD) environmental restoration program, and to raise the awareness of all stakeholders in the site closeout process. The process identified in this guide is not a new one, but rather a continuation and clarification of existing efforts. Existing requirements have been gathered and organized into an overall site closeout framework that accommodates multiple regulatory frameworks. Thus, this guide describes actions that should be taken during site closeout, although the level of effort necessary will vary based on site-specific conditions. Furthermore, it is important to note that each service and the United States Environmental Protection Agency (US EPA) are continuing to develop policies and guidance regarding their respective statutory and regulatory requirements, which has a direct impact on this guide.

The major guidance documents from which the environmental site closeout process was derived are listed in Section 9. In addition, related issues pertaining to base realignment and closure (BRAC) installations and community involvement are identified, and evolving site closeout issues (e.g., records management, institutional controls, optimization of long-term monitoring, and natural resource damages) are discussed. These evolving issues recognize that stakeholders' level of experience with the process is developing. It is expected that new policies will need to be developed and/or existing policies revised to address these evolving issues. Additional information concerning site closeout can be found on the Environmental Site Closeout Web Site, ***http://www.afbca.hq.af.mil/closeout***.

For the purposes of this guide, "Site Closeout" refers to the point at which the DoD will no longer engage in active management or monitoring at an environmental restoration site, and no additional environmental restoration funds will be expended unless the need for additional remedial action is demonstrated. The "Environmental Site Closeout Process" refers to the steps in the cleanup process after the cleanup decision has been made and the remedial action is scheduled to begin. From this point forward, the steps required to complete and closeout the remedial actions are referred to as the "Environmental Site Closeout Process."

This guide should be used as a starting point for discussion among the stakeholders at a particular installation. With information about existing site closeout requirements, the restoration project team (including representatives from the DoD, the Environmental Protection Agency [EPA], and state regulatory agencies), working together with other stakeholders, can make knowledgeable decisions about the most effective manner of integrating and applying these requirements at their installation. Stakeholders can include local redevelopment authorities (LRAs), local governments, Indian tribes, other organizations, and the public. In accordance with the March 1998 DoD *Management Guidance for the Defense Environmental Restoration Program (DERP Management Guidance)*, the focus of the restoration program continues to be to reduce risks to human health and the environment. DoD Components will plan, program, and budget resources to meet Defense Planning Guidance (DPG) goals, which currently include reduction of risk and having remedies in place.

1.1.1 Why Do We Need This Guide Now?

The DoD environmental restoration program has been under way for two decades and there are now many installations whose cleanup efforts are nearing completion. For such installations, it has become apparent that the site closeout process represents uncharted territory. For many years, environmental program management guidance focused on completing the studies and analyses necessary to make an informed decision regarding

selection and implementation of environmental remedies. Now that many installations have implemented their selected remedies and are in the remedial action operation phase, the next important step is to consider the requirements for completing and documenting the closeout of sites once cleanup goals have been met and other environmental responsibilities have been fulfilled.

BRAC Cleanup Teams (BCTs) and DoD Remedial Project Managers (RPMs) are expected to plan for site closeout based on available guidance documents from the EPA, DoD, and states. However, many of these separate guidance documents are not in complete agreement with each other with respect to definitions, milestones and requirements. Therefore, the BCTs and RPMs have a difficult task ahead to plan with such a variety of guidance in an accurate and consistent manner. This guide is intended as a planning resource that has already completed most of the groundwork in consolidating the guidance from the universe of available sources into a single document. Using this guide, BCTs and RPMs can save a significant amount of time and effort, and promote national consistency in planning for site closeouts. In addition, for access to more site-specific and remedy-specific guidance, please refer to Section 1.8, "Additional Resources."

Activities That May Remain After Remedy Selection

- Operation and maintenance of cleanup systems;
- Implementing and monitoring institutional controls;
- Community involvement;
- Performance reviews of cleanup systems;
- Cleanup system modifications or upgrades;
- Final Closeout Reports for installations;
- Long-term monitoring; and
- Cleanup system and monitoring well decommissioning.

For those installations still addressing restoration in the pre-decisional analysis phase, this guide can be an important tool for considering future requirements and incorporating those requirements into current decision making (see the box at right for examples of such requirements). For example, documentation requirements for future reviews and closeout of sites can be established up front and incorporated into decision documents and outyear schedules and budgets.

1.1.2 How To Use This Guide

This guide is not intended to be a prescriptive document that must be followed explicitly. It should be used by the restoration project team (the DoD Component Remedial Project Manager and/or BRAC Environmental Coordinator [BEC], working in close cooperation with the EPA and/or state RPM and other stakeholders as appropriate) to facilitate the environmental site closeout process and plan and tailor their site closeout efforts. The site closeout process described in this guide should not be viewed as a rigid process; rather, it should be viewed as a flexible management tool that can be applied to the specific situations that must be addressed by the DoD RPM/BEC at each installation.

Users of the guide should recognize that, in most cases, only a portion of these requirements would apply at a particular installation. Restoration project team members should discuss the most effective manner of integrating and applying these requirements at their installation. For example, removal actions can occur at multiple points along the continuum of the cleanup process; team members need to determine how best to integrate these actions into the overall site closeout scheme. This guide represents a set of tools with which to develop a site closeout strategy for an installation. Not every installation will require all the tools. DoD Components may identify and disseminate best practices for implementing the environmental site closeout process. This guide can also be used for projecting future resource

Site Closeout Considerations

- CERCLA and RCRA Corrective Action Sites
- National Priorities List (NPL) and Non-NPL Facilities
- Removal and Remedial Actions
- BRAC and Active Installations
- Federal and State Regulatory Requirements
- Cleanup Agreements, including Federal Facility Agreements (FFAs)
- Community Involvement

requirements associated with site closeout, including programming and budgeting estimates.

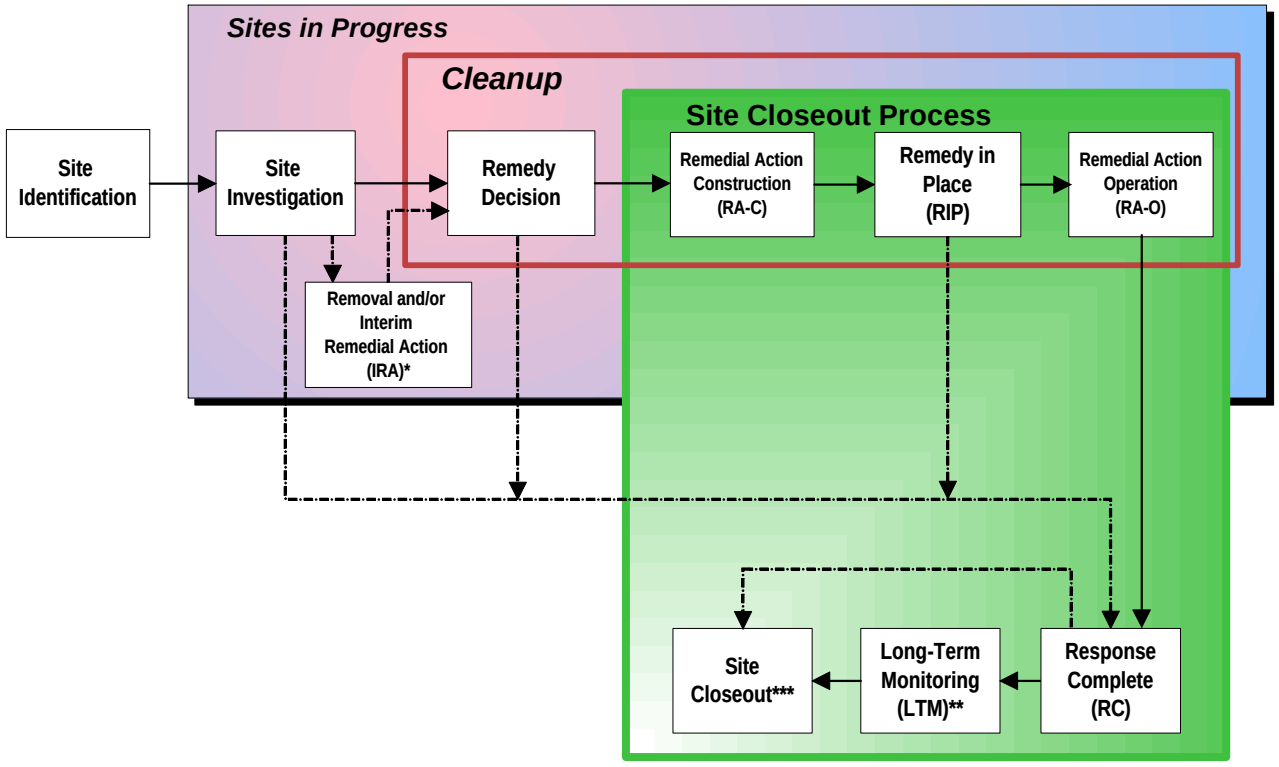
In planning a site closeout strategy for an installation, restoration project teams must address a number of considerations, including the regulatory regime(s) that apply to the installation, the installation's regulatory status; and the cleanup strategies employed and actions taken to date (see box on previous page). The remainder of this guide addresses each of these considerations in greater detail. Restoration project team members are encouraged to consider all of these factors in developing their strategy and to incorporate the relevant requirements as appropriate.

1.1.3 Overview of the Defense Environmental Restoration Program (DERP)

As articulated in the March 1998 *DERP Management Guidance*, the purpose of DoD's environmental restoration program is to reduce, in an expeditious and cost-effective manner, risks to human health and the environment attributable to contamination from past DoD activities. When risks have been reduced and cleanup goals met, sites should be closed out and categorized as "No Further Action" (NFA) needed. For BRAC installations, an additional goal is to make property environmentally suitable for transfer. Specific goals for the environmental restoration program are included in the Defense Planning Guidance (DPG). The Office of the Secretary of Defense has established milestones to:

- Reduce risk to human health and the environment at sites;
- Make property at closing/realigning bases environmentally suitable for transfer to other entities; and
- Have final remedies in place.

Figure 1.1 Defense Environmental Restoration Process



** Removal and/or Interim Remedial Actions may occur throughout process.*
***Some sites may require indefinite LTM.*
****Sites may be reevaluated, if necessary.*

Adapted from FY 1997 Defense Environmental Restoration Program Annual Report to Congress

DoD employs a risk management approach in the environmental restoration program that protects human health and the environment in an expeditious and cost-effective manner. In risk management, several types of information are used collectively to make decisions about cleanup and its timing, such as the remedial investigation/ feasibility study (RI/FS), risk assessments, public health assessments, relative risk site evaluations, and other management factors. The following risk management considerations will be applied in identifying restoration requirements, according to the March 1998 *DERP Management Guidance*:

- Classifying sites as "No Further Action" where adequate existing information does not indicate a concern;
- Proposing cost effective alternatives to treatment options that entail significant capital investments and long term operation and maintenance;
- Considering alternatives to removal or treatment of contamination when another approach might be the most feasible option, or where existing technology cannot achieve cleanup goals;
- Considering the most likely or currently proposed land use when selecting the appropriate cleanup levels with regulatory agencies prior to completing records of decisions (RODs) or decision documents, rather than assuming the most conservative land use scenario.

The major phases associated with the DoD environmental restoration process are shown in Figure 1.1. Initially, **site identification** (through records searches and/or visual inspections) produces a candidate list of areas of concern that warrant further **site investigation**, which can include more detailed environmental sampling and analysis. The site investigation can result in an assessment of potential remedial actions that may be necessary to address any environmental contamination that has been found, including a "proposed plan" for remediation with associated public participation. Both site identification and site investigation may result in a decision that no environmental restoration is required, or in the need for a **removal action**. Removal actions are short-term actions used to minimize or eliminate risk to human health and the environment, and must be consistent with any subsequent remedial actions taken. Similarly, **interim remedial actions** are commonly undertaken as components of larger actions for which a decision document has not yet been finalized, or to minimize or significantly reduce risks during ongoing investigatory efforts.

The **remedy decision** formally documents DoD's decision on a method for final cleanup of contamination, including the "no-action" option where supported by analysis. Remedial action **construction** (if appropriate) can then begin, and **remedial action operation** (ongoing cleanup) can commence once the remedy has been constructed. In certain cases, a selected remedy (e.g., a landfill cap or other containment of contamination) may require only construction and no active, ongoing cleanup in order to achieve cleanup goals. **Response complete** (cleanup goals met) is the point at which the remedy has achieved the required reduction in risk to human health and the environment. Upon response complete, a remedy may require **long-term monitoring** of effectiveness to ensure that the cleanup goals continue to be met; in some instances this monitoring may be required indefinitely. Lastly, when cleanup responsibilities have been completed at a site, **site closeout** can occur.

The Defense Environmental Restoration Program occurs through three primary legal and regulatory frameworks: the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and its implementing regulation, the National Contingency Plan (NCP); the Resource Conservation and Recovery Act (RCRA); and the "Environmental Restoration" provisions of Title 10 of the U.S. Code.

This terminology is discussed in greater detail in the following sections. Much guidance has already been prepared to address the first few steps of "Sites in Progress" in Figure 1.1; this guide addresses the subsequent steps that constitute the Site Closeout Process.

1.1.4 General Environmental Site Closeout Process

This document is a guide for program execution after the cleanup decision has been made and remedial action is scheduled to begin. From this point forward, efforts should be focused on identifying the steps required to complete and close out the remedial action, i.e., the environmental site closeout process.

As used in this guide, the term **"site"** refers to a sub-element of an installation or Operable Unit (OU) for management or funding purposes. The term **"installation"** is used to refer to the entire installation, including all OUs (by contrast, EPA often uses the term "Site" to refer to an entire facility or installation). Operable units are management tools for environmental restoration that establish a logical sequence of sites to address contamination in a comprehensive fashion. Because OUs define the structure of environmental decision making at an installation, they provide the foundation for an installation-wide remediation strategy.

The environmental site closeout process is described in this guide in terms of the major phases and milestones identified in the *DERP Management Guidance*. These are:

- **Remedial Action Construction (RA-C)**;
- **Remedy in Place (RIP)**, the culmination of RA-C;
- **Remedial Action Operation (RA-O)**;
- **Response Complete (RC)**;
- **Long-Term Monitoring (LTM)**; and
- **Site Closeout (SC)**.

The environmental site closeout process is shown generally in Figure 1.2, in terms of the DoD reporting milestones. In addition, Figure 1.2 integrates the general requirement, at installations transferring property, to demonstrate that a remedy is **operating properly and successfully** before a Finding of Suitability to Transfer (FOST) can be made and property transfer by deed can occur. Figure 1.2 also shows the ongoing requirement (both at National Priorities List (NPL) installations and non-NPL installations) to conduct five-year reviews of the effectiveness of ongoing remedies and the protectiveness of completed remedies, including the possibility that reviews may result in the need to undertake system modification or replacement. Five-year reviews are not necessarily a requirement at all sites, only where the remedial action selected results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure. Figure 1.2 also reflects the general requirement under both RCRA and CERCLA for community involvement efforts. In addition, at NPL installations, deletion (or "delisting") of the installation (or partial deletion of individual sites/OUs) from the NPL is part of the overall site closeout process.

Table 1.1 describes phases and milestones identified in the *DERP Management Guidance* and gives examples of those milestones for various remedy scenarios. These scenarios are discussed in greater detail in Section 2.

Figure 1.2 General Environmental Site Closeout Process

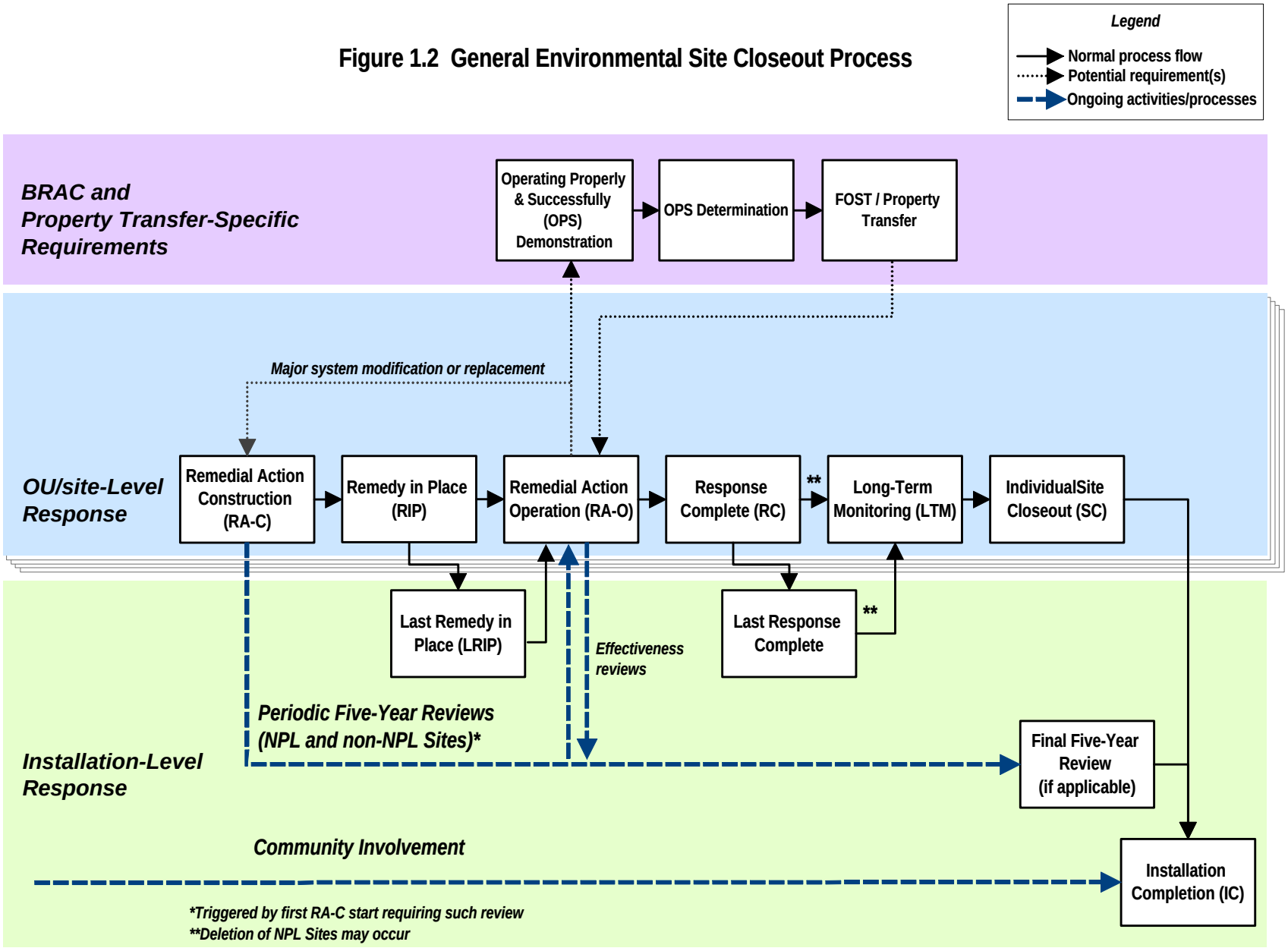


Table 1.1 Description of Major Phases and Milestones in the Site Closeout Process

PHASE/MILESTONE	DEFINITION	EXAMPLE REMEDY SCENARIO
Remedial Action Construction (RA-C)	The RA-C phase occurs while the final remedy for a site, or group of sites under an operable unit, is being put in place.	For on-site treatment, this phase comprises construction of the waste treatment facility. Remedies such as excavation or groundwater monitoring may not have an RA-C phase.
Remedy in Place (RIP)*	The RIP milestone signifies the completion of the RA-C phase, and that the remedy has been implemented and has been demonstrated to be functioning as designed (i.e., "all testing has been accomplished and the remedy will function properly," as defined in the *DERP Management Guidance*).	For on-site treatment, this could occur when the treatment facility demonstrates it can properly treat waste.
Remedial Action Operation (RA-O)	The RA-O phase occurs while a remedy is being operated to achieve the cleanup objective (traditionally associated with "operation and maintenance" (O&M)), but cleanup goals have not yet been reached.	Operation of a groundwater pump and treatment remedy or soil vapor extraction; monitoring of natural attenuation prior to achievement of cleanup goals. Containment remedies such as landfills do not generally have an RA-O phase (RC occurs concurrently with RIP).
Operating Properly and Successfully (OPS)	OPS is a milestone that demonstrates a remedy is operating properly and successfully prior to deed transfer of Federally owned property to a non-Federal recipient prior to achieving cleanup goals. Applicable to Federal property transfer; e.g., at BRAC installations.	For a groundwater remedy, an OPS demonstration might include evaluating whether the pump and treat system is performing adequately so that achievement of cleanup goals appears likely.
Response Complete (RC)	The RC milestone signifies that cleanup goals for a site or group of sites under an OU have been met, the decision has been documented, and any necessary regulatory requirement for notification or application for concurrence has occurred.	For excavation and offsite disposal, this occurs when all contaminated soil has been properly removed and disposed. For longer-term remedies, RC may not be achieved for years or decades.
Long Term Monitoring (LTM)	The LTM phase may include: environmental monitoring that occurs after cleanup goals have been achieved to ensure that the remedy remains protective of human health and the environment; administrative management of use restrictions; and operation and maintenance of the remedy. Not all remedies require LTM, while some may require indefinite LTM.	Containment remedies such as landfills can require indefinite LTM to ensure contaminants are not migrating from the site at levels harmful to public heath or the environment.
Site Closeout (SC)	SC implies that DoD has completed active management and monitoring at an environmental restoration site, and no additional environmental restoration funds are expected to be expended at the site unless the need for additional remedial action is demonstrated.	For practical purposes, SC occurs when cleanup goals have been achieved that allow unrestricted use of the property (i.e., no further LTM, including institutional controls, is required).

** Last Remedy in Place (LRIP) signifies that the RIP milestone has been reached for every site at the installation*

The use of the DoD conventions has been adopted because they are intended to be neutral with respect to the particular regulatory mechanism through which the site is being addressed, i.e., CERCLA (either NPL or non-NPL) or RCRA. Each of the DoD reporting conventions has a similar term within the CERCLA and RCRA regulatory environments (see Sections 3 and 4 for a detailed comparison).

As illustrated in Figure 1.3, some of these terms represent milestones (single points in time for a given site or OU) whereas others represent phases with longer durations. Schedules for a mature installation restoration program should indicate when major milestones will be achieved and the approximate durations of the phases, as required by DoD reporting conventions.

Figure 1.3 DoD Environmental Restoration Phases and Milestones
(Every step is not always required)

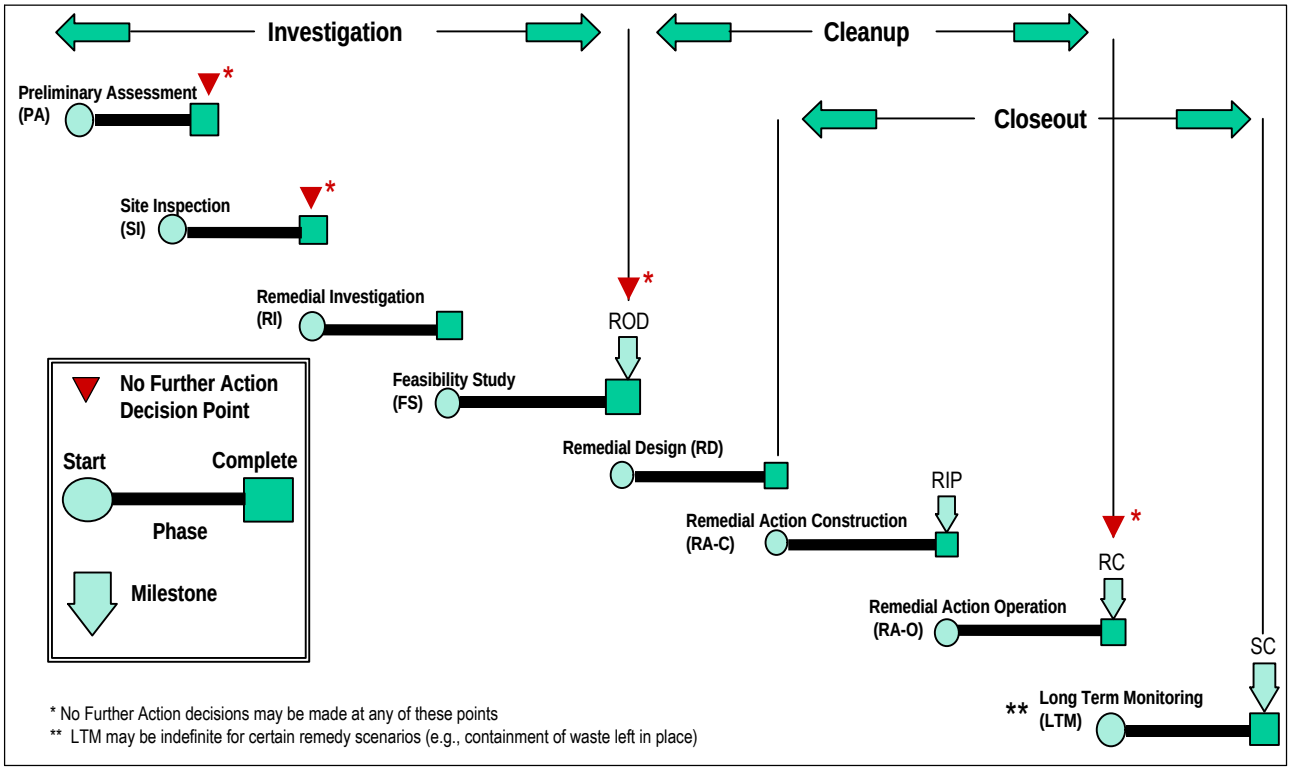


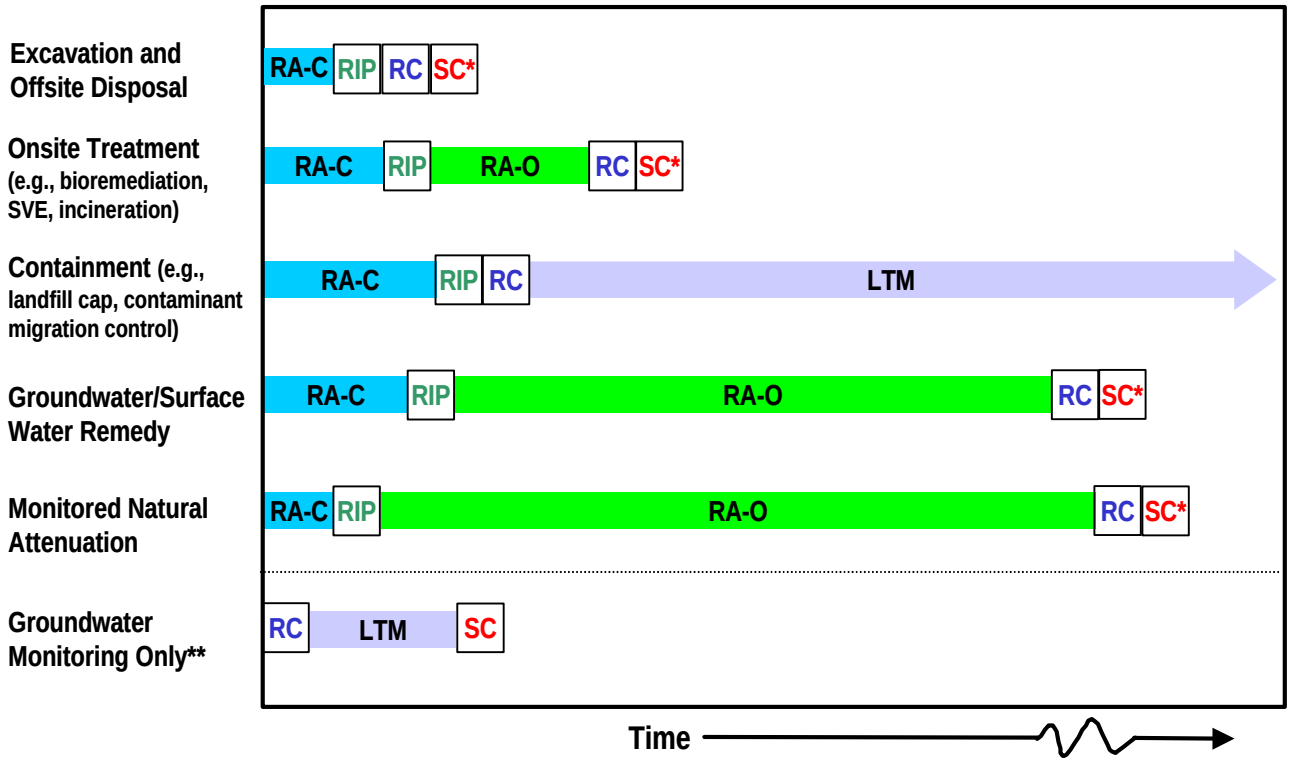
Figure 1.3 is not able to illustrate the variability in the applicability of these phases and milestones from site to site. Some of the phases may last from several months to multiple decades; some phases and milestones may not be applicable. In particular, there are multiple points in the process at which a decision can be made that no further response action is required; properly documented, these decisions constitute achievement of response complete and/or site closeout. In other cases, a chosen response action may not require all phases to achieve site closeout, and multiple milestones may be attained simultaneously.

Figure 1.4 attempts to capture the variety of ways in which these terms apply to multiple remedy scenarios. For example, containment remedies such as landfills have a substantial RA-C phase, but no RA-O phase. In the case of monitored natural attenuation, the monitoring is considered RA-O until cleanup goals have been achieved.

Under all scenarios, some form of LTM may be required if the cleanup goals do not allow for unrestricted land use or if a period of monitoring is required to verify that the remedy has succeeded in protecting human health and the environment. In some cases, where a remedy was specifically chosen to leave contamination in place (e.g., through containment), LTM may be required as long as the contamination remains, with associated monitoring of institutional controls and Five-Year Reviews of the remedy's protectiveness.

These remedy scenarios, and the specific applicability of the site closeout phases and milestones, are discussed in greater detail in Section 2.

Figure 1.4 Applicable Phases/Milestones and Timeframes for Typical Remedy Scenarios*



*A final remedy may be a hybrid of some or all of these remedy scenarios.
SC* = Indefinite LTM may be required for some sites (see Table 2.0).
** May be the only remedy selected at a site. Also applicable where previous Removal Actions and/or IRAs have achieved cleanup objectives, and the final remedy decision finds that only monitoring is needed to ensure permanence of the remedy.

Specific legal requirements and process steps for achieving the DoD milestones are described in greater detail in subsequent sections of this guide. For each phase/milestone, requirements under CERCLA and RCRA are described separately. For non-NPL sites/OUs not managed under RCRA, documentation during the site/OU closeout process should be consistent with the NCP Remedial Action Report format.

1.1.5 Roles and Responsibilities

The participation of organizations other than the DoD and EPA in the site closeout process is recognized as critical to the execution and success of the process. Specifically, state regulators play a significant role, particularly at non-NPL installations and installations with sites addressed through a RCRA regulatory framework, where the state regulatory agency is likely the lead regulator. In addition, CERCLA requires that the lead agency coordinate with the affected state before final selection of the remedial action. This guide does not attempt to assign specific roles or responsibilities for actions, since those assignments have been made through existing statutes (e.g., DERP [10 U.S.C. 2701], CERCLA, and RCRA), regulations, executive orders, and DoD and EPA policies and guidelines.

The RCRA process described in this guide was developed from EPA guidance. In states with delegated RCRA corrective-action regulatory authority, specifics of the process may vary somewhat from those described in this document and states may have more stringent requirements. The dual administration of the RCRA program may require joint permitting where the EPA imposes certain RCRA provisions and the state administers the remaining permitting activities. In such cases, appropriate state regulators should be contacted to identify and define the applicable requirements early in the process. In addition, although this

guide consistently refers to the RCRA regulatory instrument as a "permit," readers should recognize that the process is also applicable to installations addressed through other RCRA instruments (e.g., Corrective Action Consent Orders) and the accompanying requirements.

The Defense Environmental Restoration Program requires a CERCLA-compatible restoration process. Even if an installation is not included on the NPL, section 211 of the Superfund Amendments and Reauthorization Act (SARA, 10 U.S.C. § 2701), and Executive Order 12580 require that all sites be addressed in a manner consistent with CERCLA § 120.

Roles of the Cleanup Team

- Understand Federal and state requirements for various components of site closeout
- Ensure requirements beyond Last Remedy in Place are fully characterized and budgeted
- Consider innovative, flexible, and streamlined approaches to expedite the site closeout process and manage costs

To comply with CERCLA § 120, the DoD Component must enter into an interagency agreement (i.e., a Federal Facility Agreement [FFA]) with the EPA at each NPL installation, in order to establish the legal and administrative framework for environmental response actions [CERCLA § 120(e)(2)]. The agreement may also include state agencies. The DoD and states may have separate agreements addressing non-NPL installations and those agreements fulfill the same functional purpose as FFAs.

The FFA or other agreement(s) should provide a roadmap of roles and responsibilities for environmental restoration. Provisions and requirements of the agreement(s) need to be considered by the restoration project team when developing an overall site closeout strategy.

1.2 CERCLA Site Closeout

The closeout of sites under CERCLA follows the process defined in the implementing regulations (the National Oil and Hazardous Substances Pollution Contingency Plan [NCP] [40 CFR 300]) and related EPA guidance. A more detailed description of this process is presented in Section 3.

Site restoration under CERCLA also entails two additional requirements not explicitly addressed under RCRA: five-year reviews of remedy protectiveness and deletion of NPL installations from the NPL. These requirements, as well as remedial/removal action integration are described in more detail in Section 3.

1.3 RCRA Site Closeout

Site closeout under RCRA can follow two paths, one for closeout of active, regulated units and the other for closeout of corrective actions at inactive solid waste management units (SWMUs). These requirements are addressed in greater detail in Section 4.

1.4 RCRA/CERCLA Integration

This site closeout guide lists separately the closeout requirements for sites addressed under RCRA and those addressed under CERCLA. RCRA traditionally applies primarily to active waste management facilities whereas CERCLA was established by Congress to address inactive and abandoned sites. However, certain amendments added provisions to RCRA that enable inactive solid waste management units to be addressed through a "corrective action" program. In addition, CERCLA §120 and Executive Order 12580 establish certain unique requirements associated with hazardous waste cleanup of Federal facilities, including the

requirements to conduct all Federal cleanups in a manner consistent with CERCLA. Due to the overlap between these two regulatory programs, integration and clarification of the implementation procedures are required.

In general, cleanups under RCRA corrective action or CERCLA can satisfy the requirements of both programs. However, since the Defense Environmental Restoration Program requires restoration activities to be conducted in a manner consistent with CERCLA, RCRA corrective action requirements will generally be satisfied under CERCLA, with RCRA an "applicable or relevant and appropriate requirement" (ARAR). In most situations, remediation project managers should be able to conduct cleanup activities for all or part of a site under one program with the expectation that no further cleanup will be required under the other program. For example, when investigations or studies have been completed under one program, there should be no need to review or repeat those investigations or studies under another program. Similarly, a remedy that is acceptable under one program should meet the standards of the other. Some cleanup agreements (e.g., FFAs) may define the integration of RCRA and CERCLA requirements. In the case of NPL sites, all cleanup must be conducted under CERCLA and the NCP.

1.5 BRAC Installations and Property Transfer Requirements

At BRAC installations or other installations at which a transfer of property is under consideration, there are additional requirements under CERCLA for site closeout. In particular, CERCLA § 120(h)(3) requires DoD to ensure that "all remedial action necessary to protect human health and the environment with respect to any [hazardous] substance remaining on the property has been taken before the date of such transfer." This provision has been amended over time to clarify the meaning of "has been taken," and to allow for leasing and transfer of property before all required remedial action has been completed. In addition, provisions for "early transfer" have been added. These requirements add to the overall documentation required to complete closeout of BRAC environmental sites, and need to be considered by the BRAC Cleanup Team when developing project schedules and timelines. Applicable requirements, including those for operating properly and successfully determinations and early transfer authority, are addressed in more detail in Section 6.

1.6 Community Involvement

Community involvement is a critical element of the overall environmental site closeout process, promoting understanding and building trust in DoD environmental stewardship initiatives. CERCLA defines the process and timetables for community involvement. It is the main planning tool for community outreach activities. The IRP process, as regulated by CERCLA, defines program goals and initiatives to be undertaken for each phase of the IRP process. It also defines the vehicles to be used for communicating site activities and timetables for accomplishing goals.

Past installation restoration program experience has shown that community involvement beyond that strictly required by law is often appropriate and beneficial. Appropriate public participation activities are necessary to fulfill both the goals and the statutory requirements of CERCLA and RCRA, and to ensure that the public remains adequately informed during completion of environmental response actions. In fact, numerous EPA and DoD guidance documents describe suggested public participation activities (see Section 9). In most cases, however, these documents do not address community involvement activities beyond remedy selection. Where requirements exist, they have been incorporated into Sections 3 and 4.

This guide can be used by community involvement specialists to enhance or improve existing community relations plans through the identification of suggested public participation activities during site closeout. These activities are suggestions only and should be used as the basis for tailoring an installation-specific

community relations plan that addresses the particular needs of the community. The level of community involvement activity will vary by installation and over time.

Several significant community involvement activities are ongoing throughout the environmental restoration process. Community involvement personnel should periodically perform:

- Updating and maintenance of the Information Repository and Administrative Record.
- Outreach regarding the availability of technical assistance (Technical Assistance Grants, Technical Assistance for Public Participation, etc.).
- Planning for future management strategies (such as regionalization of program/site management) and an associated communications strategy; i.e., an "exit strategy" for personnel and functions managing the installation, particularly at BRAC locations.

Suggested community involvement activities are discussed in more detail in Section 7.

1.7 Evolving Site Closeout Issues

During development of this guide, several, important issues were identified for which there is currently relatively limited information. Strategies and guidance for addressing these issues will evolve as more installations encounter them and additional experience is accumulated in their management. Among these are:

- Institutional controls;
- Remedy performance optimization;
- Data and Records management; and
- CERCLA natural resource injury and damage assessments.

While these issues are not all addressed in detail in this guide, important considerations associated with them that relate to the site closeout process are discussed in Section 8.

1.8 Additional Resources

Additional information concerning site closeout can also be found on the Environmental Site Closeout Web site, ***http://www.afbca.hq.af.mil/closeout***. This Web site provides numerous resources for restoration project teams and other stakeholders, including:

- The most recent updates to this guide;
- Information on working group meetings and associated working documents;
- Comments submitted to date on the guide and the opportunity to submit new comments;
- A library of the latest site closeout guidance documents, including many important sources of information beyond those cited in Section 9;
- Example site closeout documents, including the ability for users to provide their own examples;
- An interactive discussion area for site closeout participants;
- Relevant links to site closeout topics;
- Points of contact for the Environmental Site Closeout Working Group; and
- Help on using the Web site.

Section 9 also contains further information about the source documents used in the preparation of this Guide.

The Environmental Site Closeout Web site is intended to provide an interactive capability with respect to this guide document, making it easier for the user to research information relevant to their particular installation and to ensure that this guide remains an evolving and "living" document.