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ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
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APR 16 2008

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Army Environmental Compliance-related Cleanup Policy Guidance

1. The enclosed policy guidance enables environmental managers in the Compliance-related Cleanup (CC) program to identify eligible CC sites, plan and program requirements, initiate proper cleanup or remedial action, and submit sites for review and approval. The policy guidance describes a structured approach for identifying, evaluating and cleaning up eligible sites where there has been a release to the environment. This policy guidance applies to four cleanup program areas to include Army active installations CC (Non-Defense Environmental Restoration Program), Army special installations, Army excess installation cleanup, and Army remediation overseas. This policy guidance replaces all previously issued CC guidance.
2. The guidance should be widely distributed to individuals working in the CC Program. The OACSIM staff POC is Mr. Kevin Roughgarden, (703) 601-1551, email: Kevin.Roughgarden@hqda.army.mil.

Encl

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COMPLIANCE-RELATED CLEANUP POLICY GUIDANCE

APRIL 2008

Office of the Assistant Chief of Staff
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Executive Summary

In April 2003, the Assistant Secretary of the Army for Installations and Environment directed all restoration and cleanup activities to combine under a unified strategy. This unified Army Environmental Cleanup Strategy provides overarching guidance to all cleanup personnel, regardless of program driver or funding source. The Compliance-related Cleanup (CC) Program policy guidance in this document includes four of the unified strategy's seven cleanup program areas, each governed by specific legal and funding drivers:

- ◆ Army active installation compliance-related cleanup (non-Defense Environmental Restoration Program [DERP])
- ◆ Army special installation compliance-related cleanup (non-DERP)
- ◆ Army excess installation cleanup
- ◆ Army remediation overseas.

The policy guidance describes a structured yet flexible approach for identifying, evaluating, and cleaning up sites in the above cleanup program areas, where the Army has operationally released contaminants into the environment.

This guidance helps to:

- ◆ Identify eligible CC sites
- ◆ Plan and program requirements
- ◆ Initiate proper cleanup or remediation action
- ◆ Submit sites for review and approval.

Lastly, this policy guidance clarifies differences between the DERP and the CC. Installations that have both DERP and CC sites should follow the DERP guidance for their DERP sites and the CC guidance for CC sites.

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Chapter 1

Introduction

1.1 PURPOSE

The purpose of the Compliance-related Cleanup (CC) Program at Army installations and facilities is to perform appropriate, cost-effective cleanup to protect human health and the environment, and to sustain operational readiness and training. In addition, the CC program captures data to track and report environmental liabilities that do not fall under the Defense Environmental Restoration Program (DERP).

The CC program described herein provides a structured approach for identifying, evaluating, and cleaning up eligible sites where the Army has released contaminants to the environment. CC cleanup goals are determined site-by-site. The Army's CC program is just one element of the unified *Army Environmental Cleanup Strategy* (AECS), published in April 2003. The current *Army Environmental Cleanup Strategic Plan* and organization-specific Program Management Plans (PMPs) set targets and success indicators for meeting the objectives in the AECS.

This policy guidance document assists Army personnel in meeting the challenges inherent with planning and executing the CC program.

References, definitions, and acronyms can be found in Appendixes A, B, and C, respectively.

1.2 SCOPE

This policy guidance applies to installations or facilities (whether overseas or within the United States and territories) with sites not eligible for DERP, and where contaminants have been disposed, spilled, or otherwise released by Army activities to the environment requiring a response beyond the initial/emergency response action.

Generally, CC projects are undertaken to further investigate, and when necessary, conduct response actions to address contaminant releases at Army sites. CC is the Army environmental cleanup program component covering contamination resulting from operations at sites not eligible for cleanup under DERP at:

- ◆ Army active installations
- ◆ Army reserve installations and facilities

- ◆ Army overseas installations
- ◆ Army excess installations
- ◆ Army special installations
- ◆ Federally owned Army National Guard (ARNG) facilities
- ◆ Non-DoD owned and non-operational federally supported ARNG defense sites.

At overseas Army sites, CC addresses the requirements of Department of Defense (DoD) Instruction (DoDI) 4715.8 regardless of the time frame or geographic location.

Base Realignment and Closure Division Funding Guidance¹ states that BRAC 05 does not fund compliance or compliance-related (non-DERP) cleanup. Those requirements remain an installation responsibility until the installation closes, when any remaining requirements transfer to BRAC Division.

1.2.1 Regulatory Drivers

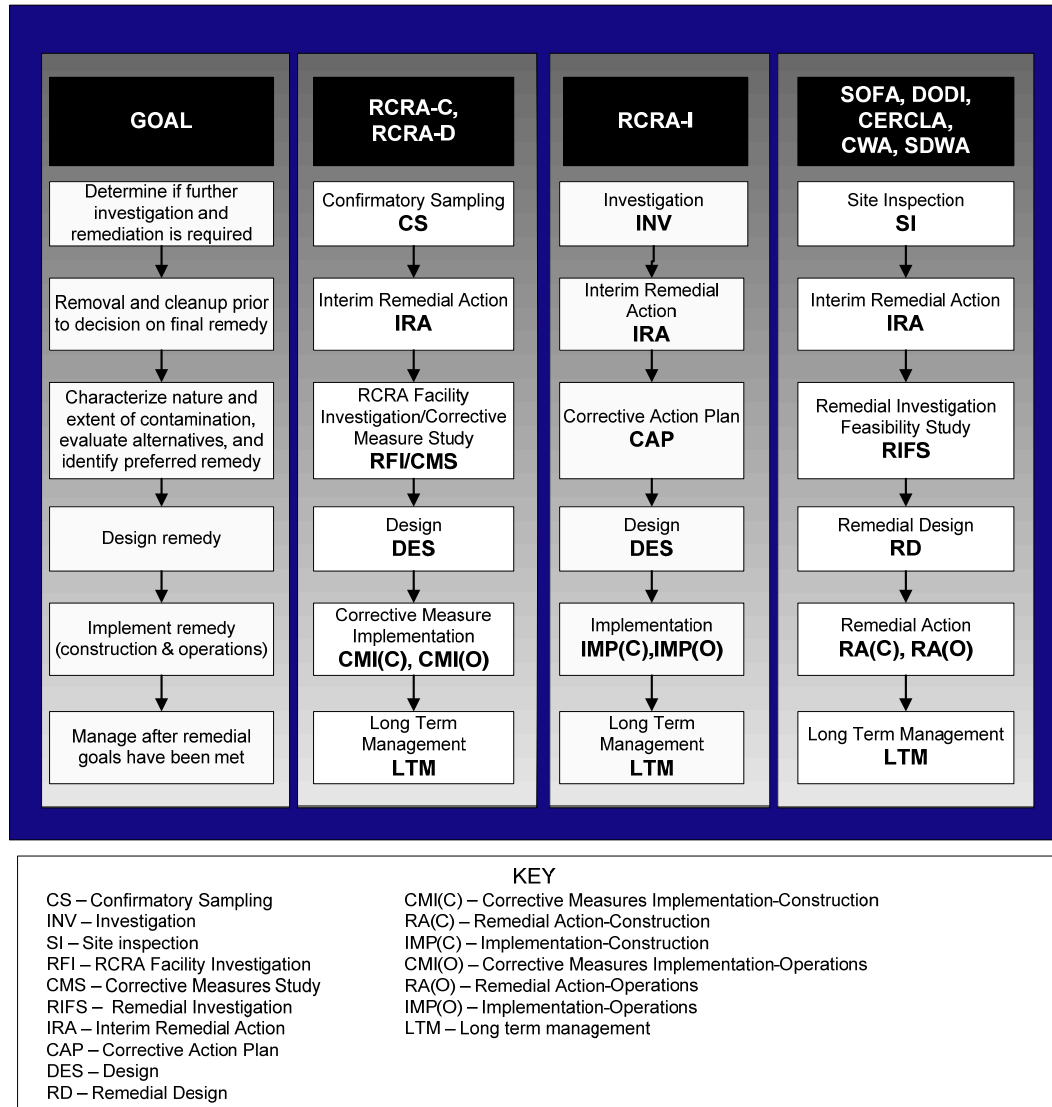
The CC program is very broad in scope, and is therefore subject to a variety of legal drivers and local conditions in the United States and territories, or overseas installations. The cleanup phases associated with each of these drivers are summarized in Figure 1-1. Among the regulatory drivers are:

- ◆ Releases under the Resource Conservation and Recovery Act (RCRA) that are not eligible for DERP, including:
 - Subtitle C hazardous waste—releases from hazardous waste treatment, storage, or disposal units that are undergoing RCRA closure
 - Subtitle D solid waste—releases from solid waste landfills that are undergoing RCRA closure and post-closure management
 - Subtitle I underground storage tanks—releases from a RCRA underground storage tank (UST).
- ◆ Releases under RCRA corrective action that are not eligible for DERP
- ◆ Releases under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that are not eligible for DERP

¹ “Army Base Realignment and Closure (BRAC) Appropriation (BCA5) Budget Submission Instructions,” memorandum, DAIM-BD, 9 November 2006.

- ◆ Cleanup mandated under authority of other Federal, State, and/or local environmental laws
- ◆ DoD Directives (DoDDs), DoD Instructions (DoDIs), and implementing Army policy
- ◆ DoDI 4715.8, *Environmental Remediation for DoD Activities Overseas*—implements policy, assigns responsibilities, and prescribes procedures for remediation of environmental contamination on DoD installations or facilities or caused by DoD operations overseas, but does not create any independent right enforceable against the DoD, the United States, or their officers, agents, or employees
- ◆ DoDD 4715.11, *Environmental and Explosives Safety Management on Operational Ranges within the United States*, May 10, 2004—prescribes policy and assigns responsibilities to ensure the long-term viability of operational ranges while protecting human health and the environment
- ◆ DoD 6055.9-STD, *DoD Ammunition and Explosives Safety Standard*—as applied to the CC program, establishes uniform safety standards for responding to ammunition and explosives contamination, and applies primarily to excess Army properties
- ◆ Binding international agreements (for DoD activities overseas)—Status of Forces Agreements (SOFA).

Figure 1-1. Legal Drivers/Instructions and Associated Cleanup Phases



1.2.2 Eligibility for the CC Program

ELIGIBLE PROJECTS

Army Regulation 200-1, August 2007, incorporated the guidelines in *Army Environmental Compliance-related Cleanup Program Eligibility*, 18 June 2004, to facilitate the development and implementation of programs that effectively and efficiently manage CC at Army installations in the United States and territories, and overseas. They ensure a common understanding of what CC is and which types of environmental projects are eligible under the program. Broad CC project categories include response actions to address the following:

- ◆ Army contamination, including contamination migrating beyond the installation boundary, where necessary to protect human health and the environment when not part of an existing site
- ◆ Contamination only within the boundaries of overseas installations. Overseas off-post contamination falls under the SOFA claims process.
- ◆ Contamination resulting from past federal activities at non-federally owned properties that are not covered by the Formerly Used Defense Sites (FUDS) Program. That program is described in Engineering Regulation 200-3-1.
- ◆ Operational Range Assessment Policy and Guidance will specify actions allowed in the CC program.

The following are some examples of typical CC projects:

- ◆ Investigation and response action that goes beyond the initial/emergency response action
- ◆ Sampling and analysis to determine DERP eligibility of a waste management unit
- ◆ Investigation and response actions for leaking USTs, after the initial confirmation sampling to determine that a release from the tanks or appurtenant equipment has occurred
- ◆ CERCLA actions for known contamination not eligible under the DERP
- ◆ Investigations of solid waste management units (SWMUs) identified in RCRA permits
- ◆ RCRA corrective actions for known contamination not eligible under the DERP
- ◆ RCRA closure actions at permitted or interim status facilities where a release of a contaminant has been confirmed
- ◆ Post-cleanup monitoring and maintenance associated with a CC remedy after the response action has been instituted (e.g., remedy in place)
- ◆ Cleanup and closure of installations declared excess to the Army's needs
- ◆ Cleanup of contamination at non-DoD owned, non-operational defense sites that are not part of a Military Munitions Response Program (MMRP) category response or are not eligible for DERP.

- ◆ Responses to contamination by munitions and explosives of concern (MEC) at other than operational ranges (closed), when necessary to protect human health and the environment and not eligible under the MMRP
- ◆ Construction of a corrective action management unit (e.g., land farm) in conjunction with a CC site
- ◆ Cleanups for response to contamination from an operational range that migrated off the range and poses a risk to human health or the environment. Such projects are eligible under the CC, but the cleanup should be limited to only those activities that contain the contamination and address the risk to human health or the environment. Range maintenance activities are not part of CC but may be required in addition to cleanup to adequately address the contamination.

INELIGIBLE PROJECTS

Projects that are *not eligible* for the CC program include but are not limited to the following:

- ◆ Initial/emergency response actions to address spills or sampling to determine if a release has occurred (if there is no other evidence supporting a suspected release, such as definitive knowledge of a release or indications of contamination)
- ◆ Projects or actions to address contamination at sites that are *not* permanent base force structure installations overseas (i.e., base camps). Specifically, the CC program cannot be used to program for response actions associated with operational deployments and contingency operations (CONOPS), including CONOPS in hazardous and/or hostile areas (e.g., the Balkans, Iraq, Afghanistan).
- ◆ Responses to MEC on an operational range, unless incidental to or required by a CC project not related to the range itself (i.e., release from a RCRA interim status or permitted unit)
- ◆ Projects eligible for DERP funding. These include previously active DERP sites that require further remediation or action for close-out.
- ◆ DERP sites that have no new additional contamination
- ◆ DERP sites that have not received official regulatory closure
- ◆ Environmental baseline surveys (EBSs) and initial site assessments (e.g., the preliminary assessment or RCRA facility assessment) used to gather information on site conditions or suspected releases

- ◆ Removal and disposal of above-ground or underground storage tanks, including disposal of any associated contaminated backfill material
- ◆ Building demolition or debris removal (BD/DR), unless part of a response action related to soil and/or groundwater contamination
- ◆ Normal operations-related compliance activities that are ***NOT part of or related to a cleanup project, including but not limited to:***
 - Routine hazardous waste storage, treatment, or disposal
 - Construction, upgrade, operation, or maintenance of hazardous waste treatment, storage, or disposal facilities
 - Operating permit fees and any monitoring associated with the permit requirements (e.g., RCRA permit fees, permit required monitoring).
 - Development, implementation, or revision of hazardous waste management plans; spill prevention, control, and countermeasures plans; emergency response plans; facility closure plans; community relations plans; or other routine plans pertaining to hazardous waste or material management.
- ◆ Those activities required to implement the closure plan of a permitted facility where no release is evident.
- ◆ Those activities required to implement regulatory best management practices for closing an interim status facility where no release is evident. Appendix D provides clarification for site eligibility.
- ◆ Soil contamination found during construction that is within the footprint of construction projects. It is the proponent's responsibility to properly assess the site before construction activities begin and address any contamination found during construction.

Appendix D contains a series of questions in a flow chart and scenarios to assist the user in determining eligibility under the CC program.

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Chapter 2

Responsibilities

2.1 ARMY CC PROGRAM MANAGERS

Table 2.1 lists the higher headquarters that serve as the CC Program Managers (PMs), according to the type or location of the installation as defined in Section 1.2 and the *Army Environmental Cleanup Strategic Plan*, March 2007.

The Army CC PMs are responsible for participating in programming and budgeting for their respective portions of the Army's environmental cleanup program.² Primary responsibilities are to:

- ◆ Develop a program management plan in accordance with the *Army Environmental Cleanup Strategy* and semi-annually brief the Deputy Assistant Secretary of the Army for Environment, Safety and Occupational Health (DASA ESOH).
- ◆ Review proposed CC projects to ensure that they meet technical and fiscal criteria (see Section 5.2.6).
- ◆ Provide quality control (QC) review and approve sites for submission to HQDA.
- ◆ Distribute funds, if applicable, and monitor execution.
- ◆ Consolidate/report technical and financial requirements from their installations during semi-annual management reviews to higher headquarters. Ensure that requirements meet Army criteria for financial liability reporting in accordance with current Army guidance.
- ◆ Review and concur with Installation Action Plans. This action may be delegated to the next lower oversight level.
- ◆ Notify DASA (ESOH) of off-installation response actions through the chain of command per Army Regulation (AR) 200-1.

² As identified in ACSIM memorandum "Army Environmental Compliance-Related Cleanup Implementation Guidance," 15 July 2004.

Table 2-1. Compliance-related Cleanup Program Managers

Higher headquarters PM	Installation type or location
IMCOM	Active installations in states and territories Active installations overseas USAR installations and facilities
NGB	Army National Guard facilities (federally owned) Army National Guard facilities (non-DOD-owned, non-operational federally supported defense sites)
ACSIM BRAC Division	Excess installations
ARMY COMMAND/DIRECT REPORTING UNIT	Special installations (belonging to AMC, MEDCOM, SMDC)

Note: IMCOM = Installation Management Command; NGB = National Guard Bureau; ACSIM = Assistant Chief of Staff for Installation Management; BRAC = Base Realignment and Closure; ACOM = Army Command; USAR = U.S. Army Reserve; AMC = Army Materiel Command; MEDCOM = Medical Command; SMDC = Space and Missile Defense Command.

2.2 GARRISON COMMANDER AND THE ADJUTANT GENERAL FOR THE STATE/TERRITORY ARNG

Garrison commanders (GCs) at Army installations and The Adjutants General (TAGs) for the state/territory ARNG are responsible for all activities regarding properties under their command. The GC and TAG, with PM higher headquarters' concurrence, have the option of determining which entity executes CC at the installation or state/territory ARNG. Primary responsibilities are to:

- ◆ Execute the CC program (see 2.3).
- ◆ Approve the requirements and resources identified in the Installation Action Plan (IAP).
- ◆ Designate a Remedial Project Manager (RPM) to ensure that all work is accomplished in accordance with applicable regulatory, DoD, and Army policies.
- ◆ As necessary or appropriate, negotiate a Memorandum of Agreement (MOA) with the executing agency relating to CC procedures.
- ◆ Approve off-site data collection and any off-post monitoring needed to ensure that contamination has not migrated off-installation.
- ◆ Provide appropriate resources to the CC RPM for all work required, and ensure that these resources are allocated only to eligible CC projects.

2.3 REMEDIAL PROJECT MANAGER

The RPM is the prime contact for response actions at an installation or ARNG facility. Some potential resources available within the Army to assist with CC-related actions are the U.S. Army Corps of Engineers (USACE) Districts and Centers of Expertise, and U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM).

Primary responsibilities are to:

- ◆ Coordinate, develop, and update the IAP at least annually to reflect changes in priorities, availability of funding, additional information on cleanup sites, policies, legislation, and performance measures. (See IAP Guidance.)
- ◆ Enter and update sites in the Army Environmental Database–Compliance-related Cleanup (AEDB-CC), ensuring that auditable cost-to-complete (CTC) cost estimates are signed, dated, and consistent with CTC guidance (see CTC guidance referenced in Appendix A).
- ◆ Maintain accurate and complete project files in accordance with the Army Record Information Management System (ARIMS), AR 25-400-2.
- ◆ Ensure that appropriate project file documents are entered into the Permanent Cleanup Document Repository (PCDR)³ for all sites.
- ◆ Ensure that the technical scope and levels of effort of CC actions are appropriate for the nature of the environmental and public health threats to be remedied.
- ◆ Identify the resources needed to effectively implement the CC program.
- ◆ Coordinate the work of installation staff, Army technical support agencies, and contractors in accomplishing CC cleanup goals.
- ◆ Report discovered contamination releases to the appropriate regulatory agencies as required.
- ◆ Submit notifications and documents to regulatory agencies and the public, as appropriate.

³ The PCDR is an electronic document database that serves as an information repository of environmental cleanup documents for Army installations and facilities created under DAIM-ZA Memorandum “Army Environmental Cleanup Permanent Document Repository Guidance,” 29 September 2004. The PCDR does not replace the installation project file required under AR 25-400-2, ARIMS, nor serve as an Administrative Record if required (see <https://aero.apgea.army.mil/> and click on READ, then cleanup repository).

- ◆ Participate in negotiations with regulatory agencies regarding any CC activities or decisions that may affect the mission of the installation.
- ◆ Recommend response actions to regulators for consideration and negotiate remedies as appropriate.
- ◆ Assign tasks to the CC executor (the agency or organization that actually executes the CC site project) describing the general scope of activities and provide project criteria, goals, and general milestones for cleanup work, and monitor execution.
- ◆ Approve proposed schedules and deadlines for all tasks and deliverables. Provide comments and approvals to the CC executor on items such as scopes of work and project documents, in accordance with approved schedules.
- ◆ Coordinate with installation and facility staff as required (e.g., Director of Public Works) to provide support for cleanup activities on the installation, such as access to sites, equipment, storage facilities, security, utilities, emergency response, communications, and field offices, as appropriate.

2.4 ARMY COMMANDS AND DIRECT REPORTING UNITS

The Army Commands and Direct Reporting Units are responsible for their installations to:

- ◆ Perform quality control (QC) review of CC cost-to-complete information and supporting data and approve projects in the Army database of record.
- ◆ Request US Army Environmental Command (USAEC) technical expertise for QC and development of Installation Action Plans when needed.
- ◆ USAEC will conduct quality assurance reviews for all Army Commands and Direct Reporting Units as requested.

2.5 ACSIM, HQDA

The primary responsibilities of the Assistant Chief of Staff for Installation Management, HQDA, are to:

- ◆ Provide policy and guidance for the CC program.
- ◆ Validate CC requirements and approve the final data set for each data call.
- ◆ Verify that all necessary program costs are identified in accordance with Army policy and guidance.

Chapter 3

Program Management

The DoD Financial Management Regulations (FMRs) provide the overall framework for Army budget development. Using DoD and Army guidance, each installation develops site-level requirements and milestones for site completion and closeout.

The budget process consists of several interrelated phases: planning, programming, budget development, and program execution. This guidance provides information on general programming and budgeting requirements.

3.1 PLANNING AND PROGRAMMING

Installations are required to manage and report CC projects at the site level through the chain of command to HQDA. This requirement includes collecting and tracking technical and financial information, by site, from initiation of site investigation through completion of cleanup response activity and site closeout.

3.1.1 Installation Action Plan

The IAP is a management tool to assist in meeting an installation's cleanup strategy, and to help plan and program future requirements. The IAP outlines the total multi-year integrated, coordinated approach toward achieving an installation's cleanup goals. Installations may use the IAP to monitor requirements, schedules, and budgets. Installations may share IAP information (excluding financial requirements) with appropriate stakeholders. Care should be taken not to reveal classified, sensitive, or proprietary information.

The garrison commander for active and excess installations, The Adjutant General for state and territory ARNG installations, and the designated individual for special installations sign the IAP, indicating approval of the requirements identified therein. The installation reviews and updates its IAP at least annually to reflect changes in priorities, availability of funding, additional information on cleanup sites, policies, legislation, and performance measures.

For the NGB, each state ARNG prepares one IAP for the CC sites in that state. For IMCOM-Europe, one IAP is prepared for each direct reporting garrison. The Army Reserves prepare one IAP for each Reserve Readiness Command. Refer to the *Army Cleanup Program Installation Action Plan Guidance* for further information on completing IAPs (see Appendix A).

3.1.2 Cost-to-Complete Estimates

The Army requires that installations develop and update (at least annually) a comprehensive site-by-site estimate of the total cost for completing all environmental cleanups required under the CC program. CTC estimates are the basis of the Army CC budget and are used to report environmental liabilities for non-DERP response actions. Per the CTC guidance, CTC estimates are subject to applicable financial and accounting standards and subsequent financial audits.

For more details for developing auditable CTC estimates, refer to the CTC guidance on Army Reporting Online (AERO): <https://aero.apgea.army.mil/portal/>.

3.1.3 CC Programming

The AEDB-CC is the database of record for recording CC site-specific and program management information and for capturing environmental liabilities. It integrates and centralizes Army CC cleanup data. Program managers use AEDB-CC information to report requirements and milestones, and to plan and program future requirements. Headquarters staff elements use requirements identified in the AEDB-CC to prepare input for the Army's Program Objective Memorandum (POM).

Remedial Project Managers provide input to build the budget by consolidating the installation's identified CC requirements. The requirements fall into two major categories:

1. *Site Projects*—This category includes costs, tracked by site, for executing response actions such as studies, removals, interim and final remedial actions, response action operation and long-term management, site closeout, costs for contract supervision and administration (S&A) (both prior and current year), in-house support related to the execution of the project, and any costs for executing CC activities tracked by site costs. The site projects are entered into the AEDB-CC (see Table 5-1 in Section 5.3.1).
2. *Program Management*—This category captures the level of effort required to manage the program at the garrison or state ARNG level. These program management costs are entered into the AEDB-CC (see Table 5-4 in Section 5.3.2).

3.2 DOCUMENTATION

Project files will be maintained for each site from the time of discovery through site closure and elimination of the environmental liability. The file will contain:

- ◆ All final reports and plans
- ◆ Cost estimates and supporting documentation

- ◆ Formal regulatory closeout (No Further Action (NFA) determination)
- ◆ Other key documents (including electronic communications) that relate to the decision-making process and the final decision for that response action.

The project file will be maintained in accordance with ARIMS and Environmental Liabilities guidelines and archived in accordance with ARIMS. Additionally, selected project file documents will be identified and entered into the Permanent Cleanup Document Repository (PCDR). The selected documents will be converted to Microsoft Office or Adobe Acrobat (.pdf) files and submitted for inclusion in the PCDR.

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Chapter 4

Overview of the Cleanup Process

In general, actions to address contamination are “response actions.” Different legal drivers use different terms for response actions. Figure 4-1 characterizes the three general steps in the response action process:

- ◆ Investigation and characterization
- ◆ Cleanup
- ◆ Site closeout.

Figure 4-1 also shows the phases in each of the general steps. These phases correspond to the regulatory drivers listed in Figure 1-1.

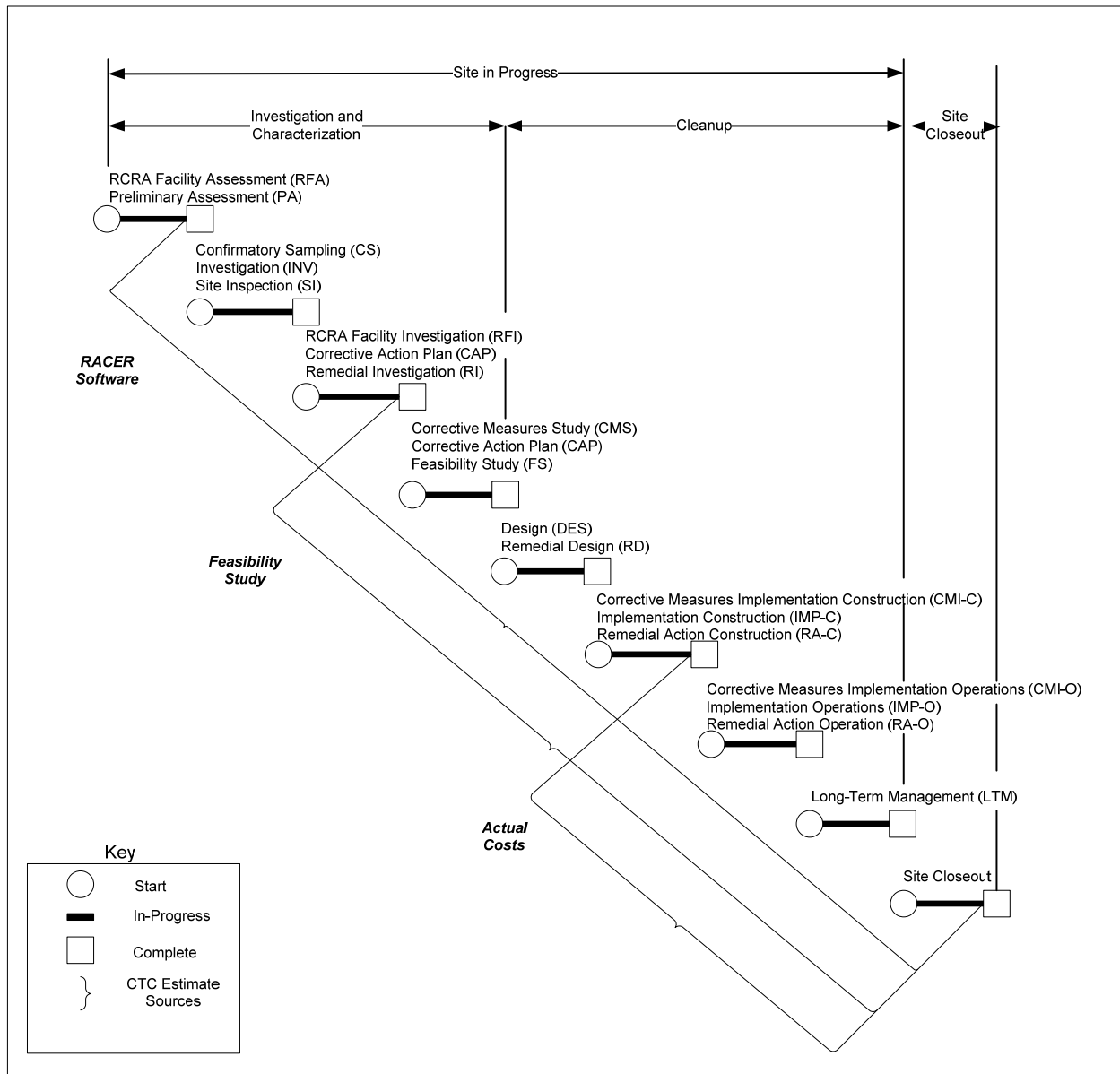
The appropriate source used for developing CTC estimates is shown based on the phases completed. For example, if the investigation phases are underway and a CMS/FS/CAP phase is not completed, the Remedial Action Cost Engineering and Requirements (RACER™)⁴ software should be used to develop the CTC estimate. A current cost proposal may be substituted for an underway or future phase. The CTC estimate should include all of the remaining phases through site closeout. The estimate should only include phases where there is sufficient site-specific data to make a “reasonable” estimate without making unsubstantiated assumptions.⁵

If a CMS/FS/CAP is completed, the costs for the recommended/selected alternative must be used as the basis for the CTC estimate, unless a cost proposal for a pending contract award is available. Actual costs for operations that have occurred for more than 2 years must be used for the CTC estimate for operations or long-term management phases (see CTC guidance for detailed discussion for developing CTC estimates).

⁴ RACER is the verified, validated, and accredited cost estimating tool per DoDI 5000.61.

⁵ If no investigation data (e.g., SI or sampling and analytical data) are available, the CTC estimate should only include the initial investigation or study (site closeout is assumed on completion of the investigation phase). The CTC estimate is also used for environmental liability reporting; for environmental liability purposes, only costs to perform the initial investigation or study are recognized as an environmental liability until more or better information is available.

Figure 4-1. Response Action Process, Phases, and CTC Estimate Sources



4.1 RESPONSE ACTION PROCESS OVERVIEW

After the eligible CC site project has been identified, response actions can begin. Each step is detailed below. The first general step, **investigation and characterization**, includes identifying and characterizing the nature and extent of contamination and assessing risk. Investigation involves:

- ◆ Completing a detailed analysis of the nature of the site, type and extent of the contaminants, and potential pathways and receptors (if necessary)

- ◆ Determining the regulatory requirements and cleanup objectives to be applied to the site
- ◆ Identifying, analyzing, selecting, and documenting the approach for cleaning up the site.

The investigation and characterization phase concludes when the appropriate response action for the site is selected and the decision is documented.

The second general step is **cleanup**. This action may include a detailed engineering design for a selected response action, and constructing and operating the selected response action until the cleanup objectives are met. It may also include any ongoing post-construction activities necessary to fully meet the cleanup objectives.

When the documented cleanup goals are achieved, the site is considered Response Complete (RC).

Cleanup may also include long-term management (LTM). If post-remedy monitoring is required or land use controls (LUCs) that require funding are in place, then LTM is conducted until such time as agreed with the regulatory agency. Once LTM is no longer required, NFA approval may be sought.

The final CC process step is **site closeout**. This step involves demonstrating that the response action was successful and that the site can be removed from regulatory oversight (e.g., written NFA approval from the appropriate regulatory agency). This step includes activities such as site closeout documentation and proper monitoring well abandonment.

4.2 CC INVESTIGATION

Before a site project can enter the CC program it must meet the eligibility requirements listed in Section 1.2.2.

4.2.1 Initial Assessment

An initial assessment is needed in order to determine if a site project is eligible for the CC program. The initial assessment includes activities conducted under a RCRA Facility Assessment (RFA) or Preliminary Assessment (PA), such as visual inspection, record searches, inventory reviews, and personnel interviews. Initial assessments are *not* programmed through the AEDB-CC. Some examples are:

- ◆ ***Initial emergency response actions***. Actions as a result of implementing the spill plan (such as sampling, soil removal, and media disposal) or initial response action should be conducted as part of the spill response or other initial response action.

- ◆ **Tank removal.** Tank removal and disposal, excavation and disposal of the backfill material, and sampling of the excavated area are considered closure actions and should be included as part of the removal contract or under the installation's general sampling contract.
- ◆ **Facility closure.** Monitoring and other compliance activities required during operation of a RCRA unit or actions to clean close a RCRA unit should be programmed as part of the operational costs

For SWMUs that are part of a RCRA permit with a corrective action plan, the permit listing serves as the initial assessment. Further investigation for corrective action work should be programmed under the site inspection.

4.2.2 Site Inspection

Initiate a site inspection after a confirmed release is documented. The confirmatory sampling (CS), site inspection (SI), investigation (INV), or similarly named investigations under other laws are used to determine if further investigation and cleanup are required (e.g., for UST leaks and spills). The site inspection is an optional step. Installations may choose to go directly to a remedial investigation (RI), RCRA facility investigation (RFI), or CAP phase. Installations may use the site inspection to develop new information needed to decide whether to initiate a removal, begin a cleanup investigation, or terminate response activities.

The goals of the site inspection are to:

- ◆ Verify the nature of the contamination and determine if further investigation is required
- ◆ Determine if an interim remedial action is warranted or required.

In addition to sampling, the site inspection usually includes a reconnaissance of the site's layout, surrounding topographical features, and the location of nearby receptors (such as people or wildlife) in order to document any risks the site may pose.

4.2.3 Site Characterization

The purpose of site characterization is to determine the nature and extent of the threat presented by the contamination at a site. This action includes the RFI, RI, or CAP phase, depending on the regulatory driver.

Characterization obtains data about the site and contaminant characteristics, their hazards, horizontal and vertical extent, and exposure pathways. Information pertinent to the contaminants' treatability and performance or treatment processes may also be developed. Data gaps may be filled during this phase to better evaluate alternatives.

The major steps in characterization include:

- ◆ Collecting soil, sediment, groundwater, surface water, and/or air samples
- ◆ Analyzing samples
- ◆ Evaluating analytical results to characterize the site
- ◆ Determining the adequacy of data for developing and evaluating cleanup alternatives
- ◆ Developing a risk assessment/hazard analysis, if applicable.

4.3 EVALUATION OF CLEANUP ALTERNATIVES

Potential cleanup alternatives are developed and screened, and the most promising ones are evaluated by specified criteria. The process of identifying, evaluating, and selecting the remedy begins with a review of cleanup technologies and land use controls (such as fences, etc.) that are appropriate to the site or sites, and the threat. Evaluation of cleanup alternatives is accomplished under one of the following phases (depending on the regulatory driver): CMS, CAP, or FS.

Appropriate technologies and land use controls may be combined on a site-by-site basis to formulate protective alternatives for permanent cleanup. The evaluation must consider the following alternatives: no further action, monitored natural attenuation, and cleanup to unrestricted use where appropriate.

Alternatives identified in the first of the site characterization steps may be screened with three broad criteria to select a reasonable number of alternatives for detailed analysis:

1. Effectiveness in reducing the threat
2. Implementation ability
3. Cost.

The recommended alternative may be documented in an engineering study that describes the alternatives that were considered. The study summarizes the information and criteria used to select the remedy.

Legal review is highly recommended at the stage of evaluating cleanup alternatives.⁶ Contact the installation/state/territory or Command environmental law specialist (ELS) for assistance.

Some CC sites may fall under regulatory drivers other than RCRA or CERCLA, such as the Clean Water Act (CWA), Toxic Substances Control Act (TSCA), or Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). At some sites, the substantive law under which the cleanup is occurring may drive the cleanup process. At other sites, a “CERCLA-like” approach may be more appropriate. Due to the unique nature of these cleanups, the installation’s ***ELS must be involved in decision document discussions*** at the earliest possible stage of the process. The ELS should coordinate with Command counsel and/or HQDA Environmental Law Division (ELD) when necessary.

4.3.1 Change in Conditions Requiring Review

Any changes in remedy other than what has been historically approved and programmed in the AEDB-CC may have impacts on funding levels for the entire program and could establish precedence across DoD.

Documented coordination with the CC PM must occur ***before any coordination or agreement with regulatory agencies*** is begun when any of the following conditions are encountered at CC sites:

- ◆ ***Off-installation response actions.*** *The CC Program Manager is required to notify DASA (ESOH) of off-post response actions through the chain of command per AR 200-1.⁷*
- ◆ ***Different remedy selected.*** Regulators select a remedy different from what the Army planned, and this ***remedy increases the CTC estimates by more than 25 percent.***
- ◆ ***Land restrictions.*** The remedy imposes restrictions on the land that ***limit current or projected future land use.***
- ◆ ***Legal driver questions.*** Proposed investigations or remedies may set precedent for DoD where there are new or no legal drivers, such as emerging constituents that have new or no regulatory cleanup standard. ***Legal review is required for these situations. Contact the installation/state/territory ELS for assistance.***

For any of the above conditions, the RPM prepares a document that is routed through the garrison commander (or equivalent for ARNG and Army Commands)

⁶ The legal review should be conducted for all sites in the U.S. and territories. Overseas sites must comply with DoDI 4715.8.

⁷ See section 12-4 of AR 200-1, 28 August 2007.

to the Army CC Program Manager. The document contains the following information:

- ◆ Site identification (Site ID, Name, Location)
- ◆ Brief background on contamination (media, contaminants, and levels)
- ◆ Off-post response action
 - Describe implications of responding to off-post contamination.
 - Describe stakeholder involvement.
- ◆ Different remedy selected
 - Describe the Army's planned remedy and CTC.
 - Describe the regulator's selected remedy and CTC.
 - Explain why regulator's remedy is/is not acceptable to the Army.
- ◆ Land restrictions
 - Describe current mission and land use.
 - Describe how remedy will restrict or limit current or future land use.
- ◆ Legal driver questions
 - Describe regulatory standard and its source.
 - Describe site-specific issues with regulatory standard.
 - Include legal comment.
- ◆ Recommended course of action.

The document must be uploaded to the AEDB-CC at the site level (enter at the bottom of the General Information Screen). The document is also uploaded to the PCDR. The original document is maintained as part of the local project file.

The CC Program Manager will review the document and discuss the issue with the installation/state/territory if questions arise.

Sites with a CTC estimate greater than \$5 million are subject to an ACSIM special review (per Army Memorandum DAIM-ZA "Army Environmental Compliance Related Cleanup Guidance," 15 July 2004).

4.3.2 Decision Document

The Army adopted the term “Decision Document” (DD) to mean the written document that prescribes the nature of the environmental response or response actions that will be taken to remediate or otherwise address contamination at Army installations, regardless of funding source. The DD also includes the cleanup goals for the site. These include documentation of:

- ◆ A removal, interim remedial action (IRA), or remedial action (RA) decision at non-CERCLA installations;
- ◆ A Record of Decision (ROD) at installations where response is conducted under CERCLA, and where remedial action decisions have been made; or
- ◆ Statement of basis or written regulatory approval.

4.3.2.1 PREPARATION AND ISSUANCE

The DD is prepared when the FS/CMS is completed and the response action alternative is selected. The DD need not be an elaborate document and may be only one to three pages in length for simple response actions. Where land use controls will be part of the selected remedy, the LUCs must be identified and documented in the DD. Final signed DDs are uploaded to the database of record (see section 5.3.2).

For the CC program for all regulatory drivers except CERCLA, the regulatory agency may issue the DD. The regulatory agency may request that the installation prepare the DD for its review and concurrence if applicable. Use the opportunity to prepare the DD to ensure that it addresses Army goals and mission-related requirements. If the regulatory agency issues the DD, the information (i.e., the outcome) must also be entered in AEDB-CC at the installation level. Under the installation menu select the ROD/DD, and then enter the DD information (see section 5.3.2). The original DD is maintained as part of the local project file.

Overseas installations can use documentation showing compliance with DoDI 4715.8 (Environmental Remediation for DoD Activities Overseas) as the DD.

For CERCLA actions, follow the process outlined in the Army Defense Environmental Restoration Program guidance for Record of Decisions/DDs.

Installations and states are responsible for establishing procedures for signing DDs. Submit DDs to Army commands or higher electronically. Legal review is required and must be documented for selected remedies with a present worth cost estimate of more than \$500,000, and is recommended for all others.

4.3.2.2 APPROVAL THRESHOLDS

The garrison commander or state adjutant general is the approval authority for DDs that have a selected remedy with a present worth cost estimate of \$2 million or less. This authority may be delegated except for DDs that contain land use controls.

The Army Command Program Manager is the approval authority for DDs that have a selected remedy with a present worth cost estimate of more than \$2 million but less than or equal to \$10 million. This authority may be delegated to a federal Senior Executive Service (SES) employee or General Officer at a subordinate command or state.

The Assistant Chief of Staff for Installation Management (ACSIM) or ARNG G-4 (for ARNG facilities) is the approval authority for DDs that have a selected remedy with a present worth cost estimate of more than \$10 million. This authority may be delegated.

The remedy present worth cost estimate is the sum of the design, construction, and operation phases of the selected remedy until cleanup objectives are achieved, but not long-term management or site closeout costs.

Also, a copy of the delegation of authority must be uploaded to the database of record under the site General Information page (see section 5.3.2).

4.4 INTERIM REMEDIAL ACTION

IRAs include removals and cleanups begun prior to the decision on the final remedy. If at a later time the IRA is considered all or part of the final remedy, the IRA should be incorporated into the final response action. A site may have multiple IRAs and final response actions.

4.5 DESIGN

The design phase (Design or Remedial Design [DES, RD]), if needed for the remedy, consists of developing a detailed set of plans and specifications for conducting the selected response action, cleanup goals, and site characteristics. The process begins with the preparation of a detailed work plan. This plan converts the conceptual design for the selected alternative into a final design that is biddable and implementable. If the selected alternative was divided into operable units, the design may also be divided at the discretion of the installation.

4.6 REMEDY IMPLEMENTATION

Following the remedial design, the next step is to implement the remedy. Implementation is programmed in AEDB-CC as two separate phases: construction (-C) and operations (-O).

4.6.1 Construction

The AEDB-CC names the construction phase based on the selected regulatory driver as IMP-C (Implementation), CMI-C (Corrective Measures Implementation), or RA-C (Remedial Action). Construction installs the response action system based on the approved Engineering Design and can include removal actions.

The construction start date begins after the approval of the design and ends when construction of the response action system is completed and the system is fully operational (i.e., after system startup). This phase includes associated actions required to install and ensure that the system is fully operational. Once the construction phase is complete, the site has achieved remedy in place (RIP) status.

The construction start and end dates are entered on the remedial action screen in AEDB-CC as part of the site identification. These dates automatically populate the construction phase under the phase schedule screen.

The construction end date automatically populates the RIP date on the phase schedule screen in AEDB-CC. The site RIP dates may be tracked by the CC PMs as a reportable program metric. Ongoing operational costs are captured in the subsequent operations phase.

Removal actions used to achieve the cleanup goals are considered a final remedial action (FRA). On the remedial action tab, under type, select "FRA." Typically, FRA removal actions (e.g., excavation) require no design phase or follow-on operations. FRA removal actions are captured under the construction phase. For FRA removal actions, once the cleanup goals are achieved the site is considered response complete (RC).

A removal action not part of the final remedy is considered an interim remedial action and entered under the IRA phase.

Construction may be greatly reduced in scope if natural attenuation is selected as the remedy. In this case, the construction step may consist of only preparing and implementing a monitoring plan. ***If there is no actual construction cost, the construction phase will include the first year of monitoring for AEDB-CC data entry purposes.***

4.6.2 Operations

Operations are identified in the AEDB-CC again based on the selected regulatory driver as one of the following phases: CMI-O, IMP-O, or RA-O. Operations continue until the documented cleanup goals are achieved. Operations typically include but are not limited to:

- ◆ Operations and maintenance activities of the cleanup technology
- ◆ Performance and compliance monitoring (sampling and analysis).

The operations start and end dates are manually entered on the phase schedule screen in AEDB-CC. During site entry or updates to the AEDB-CC, select the phase when the cleanup goals are expected to be achieved. The AEDB-CC automatically populates the RC date from the end date of the selected phase. The site RC dates may be tracked by the CC PMs as a reportable program metric.

Monitoring activities required for natural attenuation that occur beyond the first year are included as operations costs when the first year monitoring costs have been included in the construction phase.

4.7 LONG-TERM MANAGEMENT

LTM occurs after receiving regulatory concurrence that the cleanup goals have been met (i.e., the site is RC). LTM activities include but are not limited to:

- ◆ Monitoring activities
- ◆ Land use controls.

Monitoring activities track the residual contaminant concentrations from the source site, verify or maintain the effectiveness of the remedy, and/or verify that no new release occurs. Monitoring should be conducted for predetermined, fixed intervals of time. At the end of the monitoring/maintenance interval, a decision should be made whether to continue the monitoring/maintenance, modify the monitoring/maintenance schedule, implement another response action, or implement a site closeout decision.

4.8 LAND USE CONTROLS

Land use controls are engineering, institutional, and other governmental or administrative controls that restrict use or limit access to property, including subsurface portions such as the groundwater. LUCs are used in environmental cleanup to reduce risks to human health and the environment associated with potential exposure to contamination. They are used when it is inappropriate or unfeasible to eliminate those risks by cleanup of the contamination to unrestricted use or unlim-

ited exposure levels. LUCs may be the selected response action or a component of a remedy for a cleanup site. LUCs are generally used when the cleanup alternative of managing contaminants in place proves to be the most favorable risk management decision (e.g., due to technical or economic limitations, worker safety concerns, or to prevent collateral ecological injuries). The primary types of LUCs are:

- ◆ **Engineering controls:** Physical mechanisms that encompass a variety of engineered remedies that reduce or eliminate exposure to contaminated media. Such controls are intended to keep trespassers away from a site (such as fences), warn people of dangers (such as signs), or restrict or contain actual or potential contaminant migration (such as vegetative landfill cover). These mechanisms are also known as physical controls.
- ◆ **Institutional controls:** Non-engineered legal mechanisms that help to minimize or eliminate exposure to residual contamination and protect the integrity of the remedy. These mechanisms are primarily imposed to ensure that restrictions on land use are adequately documented to ensure notice and enforcement. Institutional controls (ICs) are typically used on property that is leaving Army control. They are often included in the property transfer documentation, such as the purchase agreement. Examples of ICs include restrictive covenants, equitable servitudes, and other deed restrictions or notices.
- ◆ **Other controls:** Administrative or governmental mechanisms, like master planning, permit programs, and safety training, may also be used to control land use. For example, the Army will use an installation master plan to help manage land use and may choose to undertake additional procedures like a construction or project site approval process, requiring that responsible parties be notified prior to construction, ground disturbance, or other restricted activities, and that these activities must be governed by requirements outlined in an installation permit. Such activities should be outlined in an installation's master plan.

State and local mechanisms may also assist in restricting land use on off-post or transferred property. For example, zoning requirements may help ensure protective land use. Likewise, construction and groundwater use codes with permitting procedures, requiring responsible parties to be notified prior to construction, ground disturbance or other restricted activities, may be used. However, these controls are not part of the Army's cleanup remedy because the Army cannot impose them. Instead, the appropriate local or state governmental entity will be solely responsible for creating and enforcing these controls. Consequently, it is desirable to work with state or local governments to ensure that LUCs for transferred property or off-post property will be maintained and enforced in compliance with zoning, construction permits, or other use restrictions imposed by state and local governments.

Land use controls will often continue for property that is retained or transferred by the Army. For installations that will remain under Army ownership and control, the Army is responsible for maintaining LUCs. At transfer sites, the onus will be on the new owner to maintain LUCs, along with regulators, state and local governments, as well as the Army.

Installation personnel shall enter and track LUC information associated with approved CC sites in the AEDB-CC. If an approved CC site includes a LUC, but no funding is required to maintain the LUC, then the LUC will be entered under the LTM phase with zero cost. The LUC is entered in AEDB-CC under the ROD/DD menu (see AEDB-CC User Guide). The underway status will serve as a reminder to validate the continued requirement for the LUC. Since no cost is associated with the site entry, no supporting documentation other than the documents outlining the LUC requirements is required to be uploaded to AEDB-CC. Environmental funding is provided for establishing the CC LUCs in association with a response action. Ongoing LUC maintenance requirements are typically operational activities.

Installation master plans and geographic information systems (GIS) overlays shall include LUC information. CC LUCs are controls used as part of a compliance-related cleanup action and will be outlined in the appropriate decision documents. Other use restrictions imposed for legislative, safety, or security requirements are not considered CC LUCs, because they are not primarily used to address environmental contamination. For example, a wildlife conservation restriction, installation security fences, or Occupational Safety and Health Administration (OSHA) safety procedures are not considered CC LUCs; these controls would remain in effect regardless of a cleanup remedy.

4.9 SITE CLOSEOUT

Site closeout can occur during any step of the cleanup process after receipt of written regulator agreement that no further action is necessary (LUC maintenance may still be needed). Typical site closeout activities include but are not limited to:

- ◆ Decommissioning response action equipment
- ◆ Well abandonment
- ◆ Site closeout documentation and report consistent with regulatory requirements
- ◆ Ensuring that all project files are complete and entered in the PCDR
- ◆ Site refurbishment (such as plantings, seeding, patching).

The date of written regulator NFA agreement is considered the site closeout date and will be recorded in the AEDB-CC under the phase schedule screen. The regu-

lator NFA document must be placed in the project file and uploaded to the AEDB-CC on the site general information screen and the PCDR.

Site closeout information is put in LTM or the last open site phase. The last site phase must be kept open with zero costs until the written NFA is received. The open phase calls attention to the missing NFA for follow-up as needed.

Note: Do not discontinue closed sites in AEDB-CC once NFA is received. Leave the site status as "Approved." The site status is listed as "complete" under the phase schedule in AEDB-CC. Completed sites may be filtered out for review.

4.10 ONGOING RESPONSIBILITIES

Following the site closeout step, the site is archived from the CC program and the AEDB-CC. However, the site may be re-entered into the AEDB-CC if future conditions or new information suggests reopening the site is necessary. The site project files should be retained in accordance with environmental liability guidelines for environmental liability purposes and then retired in accordance with AR 25-400-2 after verification that required documents were entered in the PCDR.

The installation is strongly advised to establish, maintain, and safeguard all information collected during response in site files. Actions regarding the site may occur years after gathering the data. It is crucial that records be sufficiently detailed and protected to provide a complete and accurate history of the cleanup response in support of any future legal action. Well-organized, complete information will aid the installation or higher headquarters in answering inquiries from Congress or requests from the general public under the Freedom of Information Act (FOIA).

Chapter 5

Compliance-related Cleanup Site Submission Process

This chapter provides guidance on entering site-specific data into the AEDB-CC. It also orients the user on the overall process for submitting and approving CC site projects. Users must obtain the following accounts for access to the AEDB-CC database:

- ◆ Army Knowledge Online (AKO) account (see www.us.army.mil)
- ◆ AERO account (see <https://aero.apgea.army.mil/>)
- ◆ AEDB-CC database account
- ◆ IAP Tool account.

5.1 USER RESOURCES

The following resources are available for AEDB-CC users to create sites and estimates and enter them into AEDB-CC:

- ◆ Environmental liabilities training
- ◆ AEDB-CC training
- ◆ RACER training
- ◆ CTC guidance (available on AEDB-CC homepage)
- ◆ AEDB-CC user manual (available on AEDB-CC home page—“CC Documents”)
- ◆ RACER user manual (available on AEDB-CC home page—“CC Documents”)
- ◆ Program policy and guidance documents (see references in Appendix A)
- ◆ QC and Site Approval Checklist (see Appendix E)
- ◆ AEDB-CC Help Desk (410) 436-1244.

- ◆ ACSIM BRAC Division (Excess Installations)
- ◆ Army Commands or Major Subordinate Commands (MSCs) as designated (Special Installations).

Once the proposed site is approved, the cost-to-complete estimate needs to be developed. The estimate, along with site information and estimate supporting documentation, is populated in the AEDB-CC. The site and cost estimate information should be checked by the installation to minimize errors. The AEDB-CC Site Readiness Checklist can be used to assist in identifying errors.

In accordance with DoDI 4715.8, overseas installations can conduct remediation under only three scenarios:

- ◆ When they are required to remedy known imminent and substantial endangerment
- ◆ When they are required to maintain operations or protect human health and safety
- ◆ When they are required by international agreement.

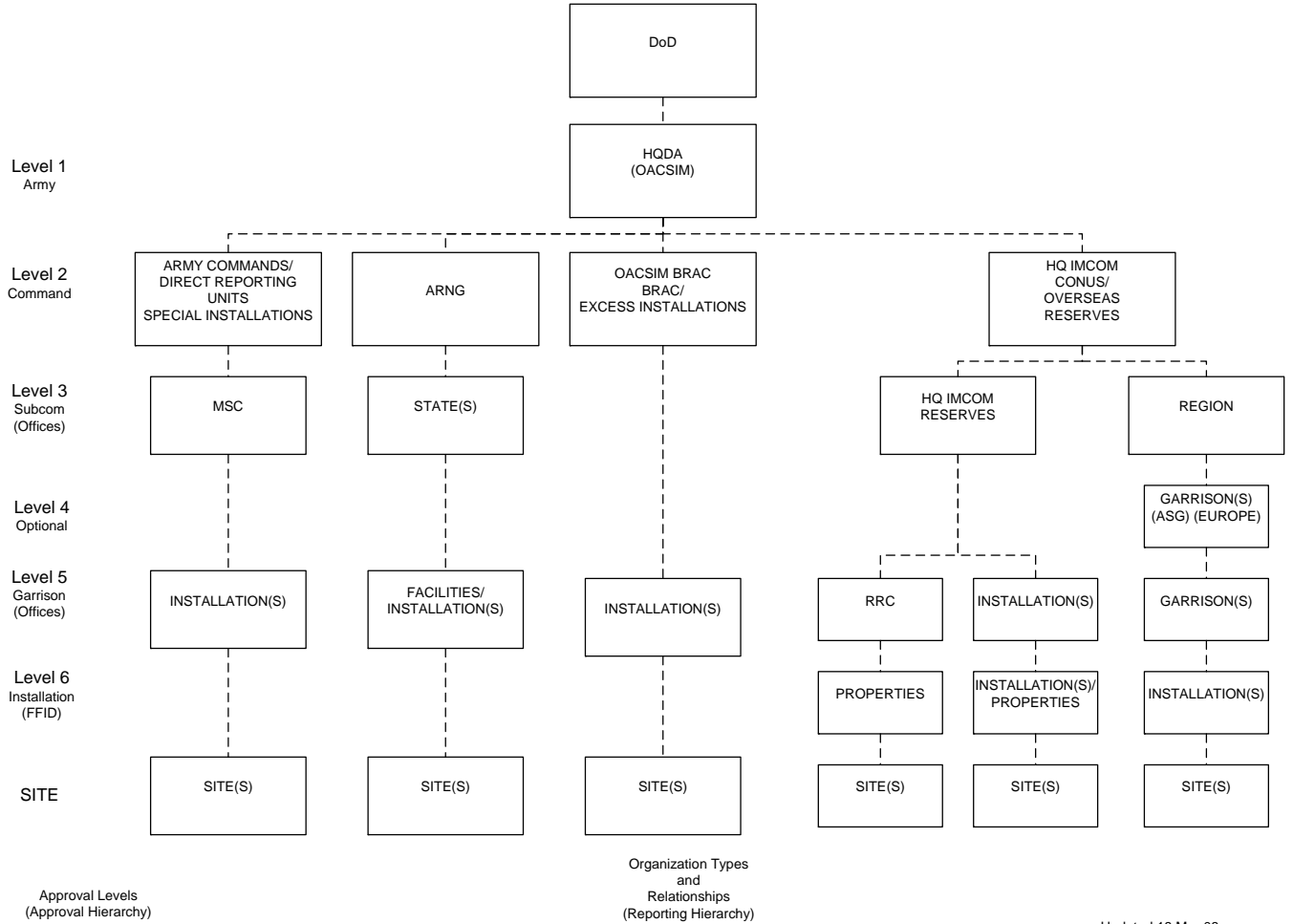
The current Army interpretation of DoDI 4715.8 allows funding through the feasibility study, including interim actions, to obtain the information necessary to determine if a requirement exists for reasons of health, safety, maintaining operations, or legal obligation. The determination can be provided at any time during the investigation phases if enough information is available. Overseas installations must provide documentation demonstrating compliance with DoDI 4715.8 for funding approval to perform the remedial action phases at a site. The documentation is uploaded to the site general information page.

The CC PM reviews the sites and cost estimates in the database. After the QC review, HQDA validates the requirements. This process is discussed in more detail in the remainder of this chapter.

Figure 5-2 provides an overview of the reporting hierarchy for the different proponents.

Figure 5-2. Approval Levels for AEDB-CC (as of 18 March 2008)

Current AEDB-CC Reporting Hierarchy



5.2.1 Identifying Site and Determining Eligibility

A CC site is defined as a location where contaminants have been disposed, spilled, or otherwise released by DoD to the environment and which requires a response beyond the initial/emergency response actions. A site is the basic unit for planning and implementing response actions and shall meet the eligibility requirements described in Chapter 1. Evaluation or cleanup of multiple sites can occur together. Considerations for consolidation of sites include but are not limited to:

- ◆ Site type (e.g., storage tanks, landfills, explosives-contaminated buildings)⁸
- ◆ Potential for a common remedy (in proximity to other sites)
- ◆ Contamination of a common media.

If the eligibility requirements in Chapter 1 are met, the site must be entered into the AEDB-CC. The general rule is that sites are entered as individual entries in the database. Multiple sites can be grouped or consolidated as a single entry under the following conditions:

- ◆ ***Grouping for investigation.*** Site requirements can be grouped and programmed together specifically for conducting an investigation. Multiple similar sites that require an investigation, following an installation-wide tank or oil/water separator removal action, can be entered as a single site for the investigation phase (e.g., installation-wide investigation). Once the response action requirement is identified for an individual site, the site must be removed from the group and entered as an individual site in AEDB-CC.
- ◆ ***Grouping for one treatment system.*** If one treatment system addresses contamination at multiple sites (e.g., soil vapor extraction for remediation of contaminated soil), the sites can be grouped after a response action requirement is identified. The types of sites can be different but they must be in the proximity of each other (in the same facility or adjacent facilities). However, if a remedy is identified for a single site in a group, it must be broken out and entered as an individual site in AEDB-CC.
- ◆ ***Area response action.*** A response action may treat or monitor a large area such as contaminated groundwater under an installation (e.g., air sparging and soil vapor extraction to address groundwater contamination from multiple pipeline leaks, or placed at the post boundary to treat a migrating

⁸ Sites can be consolidated by type through the remedial investigation phase. Sites must be separated beginning with the design through the closeout phase.

plume). The types of sites can be different and do not need to be in direct proximity of each other. Cleanup of contaminated media (such as soil) at any of the sites in the “area” must be addressed as individual entries.

For any type of grouping, the consolidated site narrative must be revised to reflect the changes in the breakout of the sites requiring response action. As the individual sites are investigated, sites that do not require further action can be closed as

part of the consolidated site. Site closeout must be documented for each individual site with an NFA determination. The site narrative in AEDB-CC must be updated to reflect site closeout.

5.2.2 Obtaining CC PM Approval for Proposed Sites

During the review and approval by CC PMs, the proposed sites may be:

- ◆ Deleted from the AEDB-CC as ineligible
- ◆ Discontinued and returned to the installation for modifications
- ◆ Approved and returned to the installation for entry completion.

Approval of proposed sites will be done at Level 2 for NGB, Army Commands, and BRAC Division, and Level 3 for IMCOM Region, the Reserves, and the MSCs for Army Materiel Command Installations (see Figure 5-2).

5.2.3 Developing the CTC Estimate and Populating the AEDB-CC

Prepare or update CTC estimates to reflect the current site cleanup strategy and schedule (see CTC guidance). CTC estimates are developed for sites with confirmed contamination. Installations shall prepare a CTC estimate only when there are sufficient site-specific data to make a “reasonable” estimate without making unsubstantiated assumptions. Reasonable estimates need to be developed through site closeout. All assumptions must be documented (see CTC guidance).

Note: If updating estimates, address any comments by the CC PM on the QC Checklist for the site (see Appendix E).

The cost estimate is entered into a series of tables in AEDB-CC (see section 5.3.2):

- ◆ ***Installation General Information.*** Required supporting files, such as the Supervisory Review Checklist for all sites on the installation, may be uploaded at the installation level on this page. If files are uploaded at the installation level, do not upload the files at the site level.

- ◆ **Site Cost Estimate and Requirements.** This page defines the estimating source and summarizes the cost to complete estimate. All required supporting files (e.g., MFR, estimate documents, and the site-specific RACER.mdb file) are uploaded on this page. DO NOT upload the RACER.csv file to this page. If these files are uploaded at the site level, do not upload the files at the installation level.
- ◆ **Cost Estimate Detail.** This page defines requirements by phase for each action. The RACER.csv file is imported on this page.

5.2.4 Conducting Final Check Prior to Data Submission

All documents must be legible, accurate, and in English. Prior to submission, the installation must download and view all uploaded documents to ensure that the data files have not been corrupted. In particular, the installation should check the .mdb file uploaded for the RACER estimate by downloading, importing, and opening the file in RACER to verify that the upload proceeded correctly.

The AEDB-CC will identify errors and warnings (see AEDB-CC User Guide). The data submission is not complete until the installation corrects all *errors* identified by:

- ◆ The Estimate Release Errors on the Cost Estimate and Requirements page
- ◆ The Site Readiness Checklist
- ◆ The Installation Readiness Checklist.

Once the errors are corrected, the site data are submitted to the next approval level.

5.2.5 Performing CC PM QC Review and Approval

After each data call, each CC PM reviews the data for each individual site in AEDB-CC in accordance with the QC plan (see Appendix E). The review includes site information, site funding information, and CTC documentation. After reviewing the site information, the CC PM reviews program management and other installation information. The CC PM records and uploads quality control review comments on the Installation General Information page under the CTC QC/QA review field.

The review will result in one of the following actions for a site:

- ◆ Deleted from the AEDB-CC because it is either not an eligible site or an incorrect entry (such as a duplicate site)
- ◆ Discontinued and returned to the installation for modifications

- ◆ Discontinued for resolution in a future data call
- ◆ Approved and submitted to HQDA.

5.2.6 Providing Final Approval

HQDA validates the CC requirements for each site and closes out the data call.

5.3 SITE DATA ENTRY

The AEDB-CC User Guide provides step-by-step instructions for entering data into the database. This section provides additional information on database entry requirements.

5.3.1 Entering Proposed Sites in the AEDB-CC

The site approval process begins by proposing a site in AEDB-CC. Complete and submit the site form in AEDB-CC for approval. The site form consists of General Information, Remedial Actions, and a Phase Schedule. Tables 5-1, 5-2, and 5-3 list the fields that must be completed in each form along with field data instructions.

If the installation or facility is not available in the database and a data call is underway, the installation or facility cannot be added until the data call closes. Hold the information until the next data call. All requests for additions, deletions, or changes of an installation or facility must be approved by the appropriate CC Program Manager.

Table 5-1. Site Form—General Information

Database field name	Type	Information for populating field
Site ID Number	Mandatory	Specify a unique Site ID for this installation. The Site ID must contain the "CC" prefix and has a maximum length of 10 characters. The Site ID has to be unique across all data calls. For example, if "CC SITE01" exists in a previous data call, you cannot create "CC SITE01" in the current data call. The Site ID can only be changed (renamed) if the site's status is "Proposed." For NGB, the site ID's third and fourth character must be the two-character state abbreviation (e.g., CCVA001).
Alias	Optional	Enter any other known alias for the site, such as old EPR project number, other previous site names, or designations from other databases (such as AEDB-R).
Name	Mandatory	The official name of the site with a maximum of 40 characters.

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Table 5-1. Site Form—General Information

Database field name	Type	Information for populating field
Statute	Mandatory	Select from the drop-down list the primary applicable law or regulation that governs the site. NOTE: The statute selected will determine the phase titles displayed on the Phase Schedule tab. Not all phases may match with state-specific regulatory drivers. Correlate the state-specific phases to the particular regulatory driven phases. ⁹
Agreements	Mandatory	Select the primary agreement between the Army and the regulator(s) that governs the cleanup at the site. "No Agreements" is a valid pick list option.
Site Type	Mandatory	Select the category that best describes the site. Only one site type can be assigned per site.
Tank Count		Required field when the site type is an aboveground storage tank, underground storage tank, or underground tank farm. Maximum field size is 4 numeric characters.
National Priorities List (NPL) Status	Mandatory	Select one from the following: <ul style="list-style-type: none"> ◆ Delisted—To indicate the installation was on the NPL but delisted in accordance with regulatory requirements. The site NPL status must have previously equaled "Yes" in a prior data call before it can be delisted. ◆ No—To indicate the installation is not on the NPL. ◆ Proposed—To indicate the installation is proposed for inclusion on the NPL. If "Proposed," enter a Hazard Ranking Score (HRS) score for the site. ◆ Yes—To indicate the installation is currently on the NPL. If "Yes," enter a HRS score for the site.
Hazard Ranking Score (HRS) Score		Not required for the CC program unless the installation is on the NPL.
Delist Date		Not required for the CC program unless the installation is on the NPL.

⁹ Phases used in the RACER estimates will match those selected in AEDB-CC if the same statute is selected in RACER under the Army template.

Table 5-1. Site Form—General Information

Database field name	Type	Information for populating field
Narrative	Mandatory	<p>Enter a description of the site. This field may not exceed 4,000 characters. The site narrative must provide a logical transition from the nature of the problem to the remedy. If after initial work, the site will transfer to another program, state it in the narrative. The narrative should include:</p> <ul style="list-style-type: none"> ◆ Site conditions. Site conditions identify the contaminated media (e.g., soil, groundwater, etc.), size, and physical setting. ◆ Type and level of contamination. Identify the type of contamination (e.g., fuel) and the concentration level of the contaminant (if known). ◆ Reason for Action. Identify and describe the regulatory or safety (explosives) requirement directing the cleanup. ◆ Key documents. Identify key documents to support the cleanup decision for the site, if such exist (e.g., corrective measures study). ◆ Potential for offsite migration. Identify if there is potential for offsite migration, exposure pathways, and likely sensitive receptors. ◆ Proposed Actions. Identify the proposed cleanup strategy and future land use.
Current Use	Mandatory	Select one of the following from the drop-down list: Commercial, Educational, Industrial, Open Space, Other, Recreational, Residential
Historic Use Narrative	Mandatory	<p>The historic narrative must identify:</p> <ul style="list-style-type: none"> ◆ When the contamination was discovered and the site was established (dates) ◆ Uses, types of activities (types of processes), and occupants ◆ Environmental history, investigations, known releases, sampling conducted, cleanup actions, and any previous closures. <p>This field may not exceed 4,000 characters. <i>DO NOT REPEAT THE SITE NARRATIVE.</i></p>
UTM Location	Optional	The Universal Transverse Mercator (UTM) location consists of the Datum, Zone, Hemisphere, X Coordinate, and Y Coordinate (if available). If any component of the UTM location is specified, all components of the UTM location must be specified.
Fund Codes	Mandatory	Select at least one but no more than three fund codes from the dropdown list.
Management Decision Package (MDEP)	Mandatory if an environmental fund code is selected	<p>Select one of the following:</p> <ul style="list-style-type: none"> ◆ EXCS (four-letter MDEP code for Excess Industrial Facility Disposal). ◆ VEMR (four-letter MDEP code for Environmental Support to Munitions and Ranges). ◆ VENC (four-letter MDEP code for Environmental Compliance). <p>Pick the MDEP associated with the fund code. If the MDEP is not present, pick "OTHR" for the MDEP. (Special installations that use mission funds for environmental cleanup work should select OTHR.)</p>

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Table 5-2. Site Form—Remedial Action

Database field name	Type	Information for populating field
Identify remedial actions		Select one or more proposed response actions from the drop-down list, if known.
Type	Mandatory if Remedial Action is selected	Select the proposed types from the drop-down list (interim remedial action, final remedial action). All FRAs must have the same status as the RA-C phase. If the RA-C status is "underway," then at least one FRA must be "underway," or one FRA can be "future" and another "complete."
Remedy	Mandatory if Remedial Action is selected	Select the proposed remedy from the drop-down list.
Status	Mandatory if Remedial Action is selected	Select the remedy status from the drop-down list (completed, underway, or future).
Start Date	Mandatory if Remedial Action is selected	Select the start date for the remedy. Any date within the reporting period (1 October to 31 March for spring and 1 April to 30 September for fall) is considered "underway." If the dates are beyond the reporting period, it is considered "future." The data call can cross the data reporting period.
End Date	Mandatory if Remedial Action is selected	Select the end date for the remedy (YYYY/MM). Any date within the reporting period (1 October to 31 March for spring and 1 April to 30 September for fall) is considered "underway." If the dates are beyond the reporting period, it is considered "future." The data call can cross the data reporting period.

Table 5-3. Site Form—Phase Schedule

Database field name	Type	Information for populating field
Status	Mandatory	Select the status for each phase from the drop-down list.

Table 5-3. Site Form—Phase Schedule

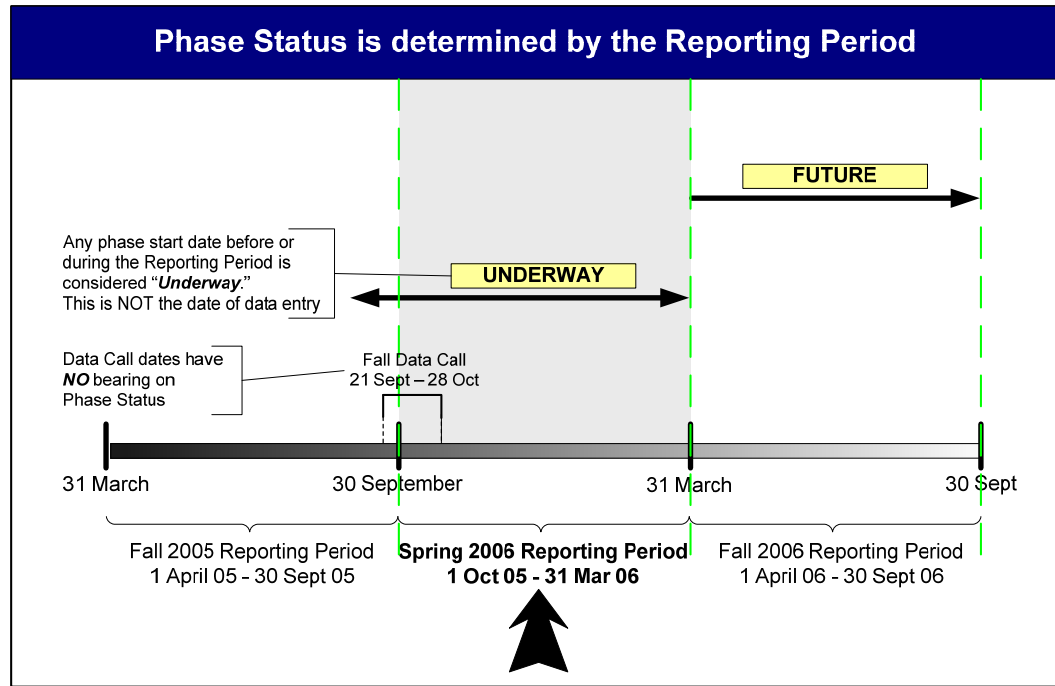
Database field name	Type	Information for populating field
Start Date ¹⁰	Mandatory if phase is selected	Select the start date for the phase (YYYY/MM). Any date within the reporting period (1 October to 31 March for spring and 1 April to 30 September for fall) is considered “underway.” If the dates are beyond the reporting period, it is considered “future.” The data call can cross the data reporting period.
End Date ¹⁰	Mandatory if phase is selected	Select the end date for the phase (YYYY/MM). Any date within the reporting period (1 October to 31 March for spring and 1 April to 30 September for fall) is considered “underway.” If the dates are beyond the reporting period, it is considered “future.” The data call can cross the data reporting period. Phase end date: A phase officially ends when all activities related to that phase have been completed. Activities may include stakeholder review and comment resolution and/or concurrence
Response Complete Phase	Mandatory	Select the response complete phase. Site closeout information is put in LTM or the last open site phase. The last site phase must be kept open with zero costs until the written NFA is received. The open phase calls attention to the missing NFA for follow-up as needed.
Response Complete Date	Mandatory	Enter the anticipated date to reach the cleanup goals (YYYY/MM). This should correspond with the phase selected to achieve response complete.
Response Complete Reason	Mandatory when RC date is reached, otherwise leave blank	Select the response complete reason from the drop-down list.
Closeout Date	Mandatory	Anticipated date to receive written no further action determination at the site.
Closeout Status	Mandatory	Select the closeout status from the drop-down list. This status is a reflection of the closeout date.
Reopened Narrative	Mandatory when a site is reopened	Do not use unless the site was closed out in a prior data call and requires additional work after response complete date. Justification is required. Field has limit of 2,000 characters.

Figure 5-3 presents an example of the phase status as related to the reporting period. Any phase start date entered into the database that is before or during the reporting period is considered “underway.” Any phase start date after the reporting period is considered “future.” The date of data entry does not affect the phase status. AEDB-CC data call dates have no bearing on phase status.

¹⁰ The construction start and end dates are entered on the remedial action screen in AEDB-CC as part of the site identification. These dates automatically populate the construction phase under the phase schedule screen. The construction end date automatically populates the RIP date on the phase schedule screen in AEDB-CC. The site RIP dates are tracked by the CC PMs as a reportable program metric. Ongoing operational costs are captured in the subsequent operations phase.

Note: Do not enter any start dates in the “underway” period unless a contract will be funded and awarded in the year of execution. If not, the start date needs to occur outside of the reporting period (1 April or later in the example in Figure 5-3).

Figure 5-3. Relationship Between Project Phase Status and Reporting Period



5.3.2 Entering Installation Information

Once the site-level information has been entered, the following information is provided at the installation level:

- ◆ **Installation General Information.** Required supporting files may be uploaded at the installation level on this page:
 - *Supervisory Review Checklist* for all sites on the installation.
 - *CTC QC/QA Review.* As part of updating the estimate, download and address comments provided in the QC Checklist (in addition to the QC comments provided at the site level) and the QA Review.
- ◆ **Program Management.** Costs for program management must be entered, when applicable, for the information listed in Table 5-4.

Table 5-4. Installation Program Management Costs

Table	Information for populating table
Salaries and benefits (full-time equivalent [FTE] and dollars)	Costs for government employees to manage the CC program at the installation level. The FTE is entered into the database of record as a fraction of or whole man-year (e.g., 0.25 for one-quarter of an FTE).
Training (dollars)	Costs for professional development related to the CC program, and for attending the annual environmental conference.
Travel (dollars)	Travel to attend meetings and training associated with the CC program.
Document review and associated fees (dollars)	Fees charged by regulators for review of site-specific documents as required (must be an established fee schedule applicable to both public and private sectors).
Contract support (NOT for site project execution) (dollars)	Costs for contract support to manage the CC program at the installation level (contractor serves as member of the installation staff).
Administrative/record keeping (dollars)	Includes installation administrative and record keeping costs.
Other (dollars)	Covers other costs (e.g., information technology [IT] support, security for excess properties if required).

- ◆ **Installation Progress.** The installation progress must be entered and updated annually during the spring data call. Enter the new fiscal year and provide schedule impacts, progress made during the execution fiscal year, and the work plan for the next two fiscal years in the narrative sections.
- ◆ **RODs/DD/Land use controls/Periodic Reviews.** Land use controls associated with CC sites are entered into AEDB-CC at the installation level on the ROD/DD page. A ROD/DD must be entered in order to add a LUC. If LUCs are in place, periodic reviews will be conducted to ensure that the controls are still required and remain effective. If the LUCs are no longer required, document the termination and upload the documentation in AEDB-CC under the site general information.

For installations that have multiple sites with LUCs, all applicable sites will be included in the periodic review. The periodic review period begins when the ROD/DD is signed for the first site that has LUCs identified. That date is used to determine the review cycle for all sites, as it is not cost-effective or efficient to conduct separate periodic reviews for individual sites.

Decision documents and delegation of authority to sign decision documents will be uploaded to AEDB-CC under the site general information. Tables 5-5 and 5-6 describe the fields and field data instructions for DDs and LUCs.

Compliance-Related Cleanup Site Submission Process

Table 5-5. Record of Decision/Decision Document Form

Create a ROD/DD		
Database Field Name	Type	Information
Title	Mandatory	Type in the title of the Decision Document or ROD, not to exceed 40 characters.
Document Type	Mandatory	Select from the drop-down list: Decision Document or ROD.
Document Status	Mandatory	Select from the drop-down list: Final (final remedy) or Interim (removal or interim action).
Action Level	Mandatory	Note the approval level.
Regulatory Driver	Mandatory	Select from the drop-down list: CERCLA, Other, RCRA, RCRA-UST, RCRA/CERCLA.
ROD/DD Description	Mandatory	Enter a description of the ROD/DD, not to exceed 2,000 characters. Identify the final remedy.
SIGNATURES		
ACSIM	Optional	ACSIM representative signature.
EPA	Optional	EPA representative signature.
Cleanup Program Manager	Optional	Cleanup Program Manager representative signature.
Installation Commander	Optional	Installation commander or representative signature.
Other	Mandatory	Representative signature.
State	Optional	State representative signature.
Status	Mandatory	Select from drop-down list: "complete" if DD is signed by all parties or "future if DD will be signed.
Dates	Mandatory	The date the authority signed or will sign the DD. If the signature status is "complete," the date entered must be less than or equal to the reporting period end date. If the status is "future," the date entered must be greater than the reporting period end date.
Signature Description	Mandatory	Required when "other" is used. Describe who is signing the DD and under what authority—for example, "Installation commander, responsible for installation

Table 5-5. Record of Decision/Decision Document Form

Create a ROD/DD		
Database Field Name	Type	Information
		environmental program." Field limit is 2,000 characters.
Associated Sites and Remedial Actions		
ROD/DD Associated Sites	Mandatory	Select the sites from the drop-down list to apply. At least one site must be associated with the ROD/DD. Sites without remedial actions may be associated with the ROD/DD.
Modify a ROD/DD		Select ROD/DD from the installation menu and click on Modify. Update the information and save.
Delete a ROD/DD		Unless entered in error, a ROD/DD should not be deleted. Select ROD/DD from the installation menu and click on Delete. Confirm to remove the ROD/DD.

A LUC is documented at AEDB-CC sites associated with a Record of Decision (ROD), Decision Document (DD), or an Action Memorandum (DD equivalent prepared for a removal action). A LUC may consist of one or both of the following two components for restricting property access to prevent exposure to hazardous substances above permissible levels: 1) Institutional Controls—legal and administrative mechanisms, and 2) Engineering Controls—physical barriers.

Table 5-6. Land Use Control Information

Database field name	Type	Information for populating table
Title	Mandatory	Enter the title for the LUC. This is a mandatory field and must be entered in order to save the record. Field limit is 25 characters.
Inspection Organization	Mandatory	Select an inspecting organization from the drop-down list. Only one selection can be made.
Location	Mandatory	Enter the location of the LUC in the text box. Location is address or physical location, including latitude and longitude coordinates. Field limit is 2,000 characters.
Record of LUC	Mandatory	Select at least one record of LUC. This is the document where the LUC is recorded.

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Table 5-6. Land Use Control Information

Database field name	Type	Information for populating table
LUC Enforcements	Mandatory	Select at least one type of LUC enforcement. If the type of enforcement being utilized is not on the list, select "other." For "other," specify the enforcement in the "Other Description" text box (limit of 40 characters).
Date in Place	Mandatory	Enter the date in place (YYYY/MM) for the LUC.
Date Terminated	Optional	Enter the date (YYYY/MM)LUC is terminated, if applicable.
Engineering Controls	Mandatory	Select the types of engineering controls used for this LUC. More than one type may be selected. At least one engineering control must be entered.
Institutional Controls	Mandatory	Select the types of institutional controls for the LUC. More than one type may be selected. At least one institutional control must be entered.
Description of Control	Mandatory if "other" selected as type of LUC, or an institutional or engineering control.	Enter a description of LUC documentation, implementation strategy, or a description of the engineering and/or institutional control. Field limit is 2,000 characters.
Associated Sites	Mandatory	Select at least one site to associate with the LUC. Only sites that have already been associated with the ROD/DD will be displayed.
Associated Documents	Mandatory	Documents that describe the LUCs, their implementation, and requirements. These documents will be uploaded to AEDB-CC.
Periodic Reviews	When required	
Create Periodic Review		At least one ROD/DD is required to create a periodic review.
Select Associated ROD/DDs	Mandatory	Choose the applicable ROD/DD from the list.
Start and End Dates	Mandatory	Enter dates in YYYYMMDD format. Start date is computed by adding number of years to next review to the earliest signature date associated with the ROD/DD assigned to the review.

Table 5-6. Land Use Control Information

Database field name	Type	Information for populating table
Periodic Review Status	Mandatory	AEDB-CC will automatically determine if review cycle is complete, underway, or planned, based on the start and end dates and the reporting period end date used for the data call. If the status is "complete," complete the Narrative Test for Completed Periodic Reviews. Describe the LUC conditions (Results), any changes or maintenance done (Actions), the continued need for the LUC (Plans). No action other than saving the data is required for underway or planned reviews.
Modify Periodic Review		Select ROD/DD from the installation menu and continue to drill down to the periodic review. Update the information and save.
Delete Periodic Review		Unless entered in error, a periodic review should not be deleted.

5.3.3 Entering Site Costs

Once the CC PM approves the site, the cost requirements must be entered under Funding Information—Cost Estimate and Requirements in AEDB-CC (see the AEDB-CC User Guide). The sources for these estimates must be selected, and the following information will be identified in the Estimate Source Narrative field:

- ◆ **Existing Contract**—Contract number, task order number and name, date, and agency administering the contract.
- ◆ **Feasibility Study**—Title, author, and dates.
- ◆ **Historical Data for Recurring Costs**—Identify the document along with the same information for existing contract or feasibility study.
- ◆ **Independent Government Cost Estimate (IGCE)**—Identify who developed the estimate and supporting documentation (e.g., contract with bid schedule). The IGCE is procurement-sensitive information and should not be disclosed to parties other than as authorized by the Contracting Officer.
- ◆ **RACER Estimate**—None.
- ◆ **Other**—Identify estimate source and upload supporting documentation (e.g., engineering estimate, cost proposal).

If RACER is used as an estimating tool in combination with other sources, the estimate is considered an IGCE or “other” estimate.

For the costs and phases, the following types of data are entered into AEDB-CC:

- ◆ **RACER import.** The estimate .csv file generated from the RACER software is imported to the Cost Estimate Detail page for the cost estimate detail. If RACER is not used, the estimate must be manually input into the database. The phases in the AEDB-CC must match the RACER estimate for the .csv file to import into AEDB-CC properly. Import into the AEDB-CC is the *only* purpose for the .csv file. **Do not upload** the .csv file as supporting documentation.
- ◆ **Manual input.** The data are manually input on the Cost Estimate Detail Sheet for the following estimate sources: existing contract, corrective measures study, historical data for recurring work, and independent government cost estimate, or other. **The selected response action, phase schedule, and the Cost Estimate Detail Sheet must match the supporting documentation.**
- ◆ **Upload files.** Supporting information is uploaded as .pdf or MS Office files for the following: Memorandum for Record (MFR), existing contract, corrective measures study, historical data for recurring work, independent

government cost estimate, or cost proposal. ***The RACER .csv file is only imported into the database for the estimate and is NOT uploaded as supporting documentation.*** The Supervisory Review Checklist for all sites at the installation may be uploaded at the installation level on the general information page. Alternatively, an individual RACER .mdb file should be uploaded for each site on the site cost estimate and requirements page, if it is not uploaded at the installation level. This file is downloaded during the QC review and checked.

Note: The IAP is ***not*** supporting documentation.

If there is a material change, the estimator must document the reasons for the material change in the database. A material change is defined as a 10 percent difference in cost, whether positive or negative, between the spring CTC requirements for a given year as compared to previous spring's CTC requirements (see CTC guidance). This comparison does not consider obligated funds in the analysis. If the database identifies a material change based on the exclusion of an executed phase, select "obligations" as the Material Change Justification.

Zero cost estimates can only be entered for phases marked underway.

Once costs are entered in the Cost Estimate Detail Sheet, they need to be allocated in the Required Program Spread. The estimate in the Required Program Spread can then be copied and reallocated in the Program Funding Spread.

Follow these steps (also found in the AEDB-CC user manual) to enter the cost information into AEDB-CC. Errors may occur that may cause data loss if these steps are not completed in order.

1. Navigate to Funding Information—Cost Estimate and Requirements. Complete this screen and save. If a RACER and engineering cost estimate are to be used, select RACER as the estimate source. After importing the RACER estimate, modify the estimate source to OTHER. Save.
2. Navigate to Funding Information—Cost Estimate and Requirements—Cost Estimate Detail Sheet. This page allows entry of specific cost information. RACER .csv files are imported here, or cost information can be entered manually. When using RACER and another estimate source, import the RACER estimate first. Then change the estimate source to "other" and manually enter the other estimate data. Save.
3. Navigate to Funding Information—Required Funding Spread. Apply the funding spread either by accepting the default or by manual entry.
4. Navigate to Funding Information—Programmed Funding Spread. Apply the funding spread either by accepting the default or by manual entry.

5. Navigate to Funding Information—Cost Estimate and Requirements. Upload supporting documentation. This step may include uploading the supervisory review checklist if not uploaded at the installation general information page.
6. Navigate to Funding Information—Cost Estimate and Requirements. Check for estimate release errors. Correct all errors.
7. Navigate to Site Readiness Checklist. Correct all errors.
8. Navigate to Funding Information—Cost Estimate and Requirements. Release estimate.

5.4 REQUIRED FUNDING

Headquarters staff elements use the Required Funding entry identified in the AEDB-CC to prepare input for the Army’s POM and to serve as the basis for reporting environmental liabilities. Installations or organizations resourced by a working capital fund or other similar fund source use the information in AEDB-CC to assist with programming requirements into the annual work plan.

MDEPs will account for the resources allocated to meet CC program requirements. Table 5-7 provides a breakout of applicable MDEP appropriation fund codes used in the CC database.

Table 5-7. CC Program Management Decision Packages

Organization	Program	MDEP/APPN
IMCOM	Active/Overseas	VENC/OMA
USARC	Reserves	VENC/OMAR
IMCOM	Ranges	VEMR/OMA
USARC	Ranges	VEMR/OMAR
NGB	NGB	VENC/OMNG
NGB	MMR (Camp Edwards, MA)	VEMR/OMNG
NGB	Ranges	VEMR/OMNG
BRAC	Excess Properties	EXCS/OMA
AMC	Special	As appropriate/OMA (Chem Demil), PAA, AWCF, TWCF, et al.
MEDCOM	Special	As appropriate/DHP
SMDC	Special	As appropriate/RDTE

Requirements may be programmed against the different MDEPs according to the organization and type of action executed. For example:

- ◆ ***Underground Storage Tank Removal.*** Storage tank removal is programmed against a sustainment, restoration, and modernization (SRM) account.¹¹ Requirements related to removal and disposal of the tank system, including disposal of the associated contaminated backfill and confirmatory sampling, may be entered in AEDB-CC under the MDEP “OTHR” and the appropriate N-ENV fund code when available. This is an optional entry, because normal closure actions are not part of the CC program. Requirements for the investigation and cleanup are entered in the AEDB-CC database under the appropriate MDEP and fund code.
- ◆ ***Landfill Activities.*** Landfill closure and monitoring activities eligible for CC are entered in the AEDB-CC by selecting the appropriate MDEP and fund code. Landfill grounds maintenance such as fixing fences, cutting grass, maintaining engineering controls, and controlling erosion are *not* considered to be environmental cleanup costs and not entered in the AEDB-CC. Activities related to methane gas control and leachate collection and disposal at operating landfills are considered part of the normal closure of the facility. In addition, these activities at an operating facility or at the closure of an operating facility would not be funded by an environmental account.
- ◆ ***Cleanup of Excess Real Property with Explosives Contamination.*** Cleanup of explosives-contaminated real property is entered in the AEDB-CC under the EXCS MDEP and OM (ENV) fund code.
- ◆ ***Referred Operational Range Assessment Site.*** Referred sites are programmed in the AEDB-CC by selecting the VEMR MDEP and the OM (ENV) fund code.
- ◆ ***Special Installation Cleanup.*** Per AR 200-1, paragraph 12-4 (k), Army Commands, Army Service Component Commands, and direct reporting units with special installations will program and budget mission or working capital fund resources to address non-DERP, CC-eligible releases. The project must be entered in the AEDB-CC. For all special installation fund types, select OTHR as the MDEP in AEDB-CC.

Environmental cleanup requirements do not include projects for facility upgrades (e.g., replace, maintain, or bring a system back into compliance with an existing environmental standard).

¹¹ ACSIM Memorandum, Funding Responsibilities for Army Storage Tanks. September 16, 2003.

5.4.1 Executing Funds

Various mechanisms are used by the PMs for distributing allocations for funding where applicable. See organization supplemental guidance for specific funding instructions. In any event, a prioritized list of CC projects for funding should be established. If there are funding shortfalls for that fiscal year (the requirements exceed the allocation level), re-program the unfunded CC requirements into the next or a future fiscal year. Re-programming must be based on the allocation being exceeded, *not* delayed disbursement.

CC Program Managers that receive VENC environmental funds acknowledge that these funds are used for all environmental compliance functions. If VENC funds designated for CC projects are reprogrammed for other compliance projects, this action must be communicated to the CC PM and documented in the site narrative in the AEDB-CC.

For installations that do not receive VENC funds (i.e., excess or special installations), the CC PM will outline annual program funding levels for the CC program at installations under their control. For special installations, CC requirements are funded according to command guidance.

5.4.2 Recording Obligations

All obligations must be recorded in AEDB-CC not later than the close of the spring data call following the end of the fiscal year.

5.4.2.1 ENTERING OBLIGATIONS IN AEDB-CC

Obligations are entered in the AEDB-CC under the Obligated Funding Spread. Amounts are entered for funds expended in the year of execution as well as previous fiscal years. This should be done when funds are obligated and the AEDB-CC is open for data entry, but no later than the spring data call for the previous fiscal year.

5.4.2.2 RECORDING OBLIGATIONS IN DEFENSE FINANCE AND ACCOUNTING SERVICE SYSTEMS

Ensure that resource management uses the Army Management Structure (AMS) codes for compliance-related cleanup when entering obligations in Defense Finance and Accounting Service (DFAS) systems. The AMS codes are found in

DFAS-IN Manual 37-100-XX (where “XX” represents a particular fiscal year), as listed in Table 5-8:¹²

Table 5-8. DFAS AMS Codes for Recording Obligations

AMS Code Suffix	Name	Use
.A0	COMPLIANCE-RELATED CLEANUP	This code is a summary account for compliance-related cleanup and should NOT be used.
.A1	CLEANUP IN THE UNITED STATES AND TERRITORIES	This code is used for entering obligations for sites in the United States and territories.
.A2	OVERSEAS CLEANUP	This code is used for entering obligations for overseas sites.
.A3	OPERATIONAL RANGE RESPONSE ACTIONS	This code is used for entering obligations when funds are planned and programmed based on the findings of the qualitative range assessment.
.11	ADMINISTRATION	This code is used for entering obligations for all compliance-related cleanup program management costs. These costs are those that were entered under the program management module in AEDB-CC.

AMS Code suffixes A1, A2, and A3 are used to track the reduction in environmental liabilities.

¹² These codes and updates to these codes can be found on the DFAS website in the file “Base Support” in the downloaded .zip file, under Environmental Compliance (<http://www.asafm.army.mil/secretariat/document/dfas37-100/dfas37-100.asp>).

Appendix A

References

- ◆ RCRA Subtitle I: 40 CFR 280, Technical Standards And Corrective Action Requirements For Owners And Operators Of Underground Storage Tanks (UST) (RCRA I), <http://www.gpoaccess.gov/cfr/index.html>
- ◆ American Society for Testing and Materials (ASTM) E 1527-00, “Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process,” 10 May 2000, <http://www.astm.org/>
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Appendix B

Definitions

In addition to compliance-related cleanup (CC) phases and processes defined in the chapters, the following terms are used throughout this guidance:

- ◆ *Adequate Documentation*—A collection of pertinent project-related documents that support underlying factors, assumptions, and estimated costs, including background information, disposal or restoration strategy, physical units in the estimate, cost per unit, cost adjustments such as escalation to current year dollars, and significant project changes.
- ◆ *Army Environmental Database (AEDB)*—A web-based automated information management system operated and maintained by the U.S. Army Environmental Command for integrating the Army’s cleanup, conservation, compliance, and pollution-prevention environmental data. The Army Environmental Database–Compliance-related Cleanup (AEDB-CC) is a subset of the AEDB developed and exclusively used for tracking at the site level (from project initiation to completion) all CC-eligible projects. AEDB-CC is the database of record for managing the Army’s environmental liabilities for compliance-related cleanup.
- ◆ *Base Realignment and Closure (BRAC)*—A DoD program that focuses on cleanup and compliance efforts at military installations undergoing closure or alignment, as authorized by Congress in five rounds of base closures for 1988, 1991, 1993, 1995, and 2005. The first BRAC round was conducted in 1988 based on recommendations by the Defense Secretary’s Commission on Base Realignment and Closure. The Defense Base Closure and Realignment Act of 1990 is the statute for base closure and realignment rounds in 1991, 1993, 1995, and 2005. The Defense Environmental Restoration Program (DERP) goal within the BRAC program is to conduct environmental cleanup as efficiently as possible to speed transfer of assets to and reuse by the community.
- ◆ *Closed Range*—This older term refers to a military range that has been taken out of service as a range and has either been put to new uses that are incompatible with range activities or is not considered by the military to be a potential range area. A closed range is still under the control of the Army. The current term is “other than an operational range.”
- ◆ *Compliance-related Cleanup (CC) Site*—A location where contaminants have been disposed, spilled, or otherwise released by Army activities to the environment and that requires cleanup beyond the initial/emergency

response actions. A site is the basic unit for planning and implementing response actions. CC sites are also not eligible for DERP.

- ◆ *Contaminant*—A substance in the environment (air, soil, water) that is natural or introduced by other species that may cause a physiological impact or risk to human health or the environment. The substance may be chemical, metal, or biological.
- ◆ *Corrective Action Plan (CAP)*—The development of alternatives to achieve risk-based cleanup goals at a site. Alternatives are evaluated, at a minimum, on effectiveness, permanence, and cost.
- ◆ *Corrective Measures Study (CMS)*—Those actions consistent with permanent remedy taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or the environment. The term includes, but is not limited to, such actions at the location of the release as storage; confinement; perimeter protection using dikes, trenches, or ditches; clay cover; neutralization; cleanup of released hazardous substances and associated contaminated materials; recycling or reuse; diversion; destruction; segregation of reactive wastes; dredging or excavations; repair or replacement of leaking containers; collection of leachate and runoff; onsite treatment or incineration; provision of alternative water supplies; and any monitoring reasonably required to assure that such actions protect the public health, welfare, and the environment. The term includes the costs of permanent relocation of residents and businesses and community facilities where the President determines that, alone or in combination with other measures, such relocation is more cost-effective and environmentally preferable to the transportation, storage, treatment, destruction, or secure disposition offsite of hazardous substances, or may otherwise be necessary to protect the public health or welfare. The term includes offsite transport and offsite storage, treatment, destruction, or secure disposition of hazardous substances and associated contaminated materials.
- ◆ *Corrective Measures Study–Construction (CMS-C)*—The period during which the final remedy is being put in place. The end date signifies that the construction is complete, all testing has been accomplished, and the remedy will function properly (also see “(Corrective Action) Implementation–Construction (IMP-C)” and “Remedial Action–Construction (RA-C)”).
- ◆ *Corrective Measures Study–Operations (CMS-O)*—The period during which the remedy is in place and operating to achieve the cleanup objective identified in the Decision Document or equivalent agreement. Any system operation or monitoring requirements during this time shall be

termed CMS-O (also see “(Corrective Action) Implementation–Operations (IMP-O)” and “Remedial Action–Operations (RA-O)”).

- ◆ *(Corrective Action) Implementation (IMP)*—Those actions consistent with permanent remedy taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or the environment.

The term includes, but is not limited to, such actions at the location of the release as storage; confinement; perimeter protection using dikes, trenches, or ditches; clay cover; neutralization; cleanup of released hazardous substances and associated contaminated materials; recycling or reuse; diversion; destruction; segregation of reactive wastes; dredging or excavations; repair or replacement of leaking containers; collection of leachate and runoff; onsite treatment or incineration; provision of alternative water supplies; and any monitoring reasonably required to assure that such actions protect the public health, welfare and the environment. The term includes the costs of permanent relocation of residents and businesses and community facilities where the President determines that, alone or in combination with other measures, such relocation is more cost-effective and environmentally preferable to the transportation, storage, treatment, destruction, or secure disposition offsite of hazardous substances, or may otherwise be necessary to protect the public health or welfare. The term includes offsite transport and offsite storage, treatment, destruction, or secure disposition of hazardous substances and associated contaminated materials.

- ◆ *(Corrective Action) Implementation–Construction (IMP-C)*—The period during which the final remedy is being put in place. The end date signifies that the construction is complete, all testing has been accomplished and that the remedy will function properly (also see “Corrective Measures Study–Construction (CMS-C)” and “Remedial Action–Construction (RA-C)”).
- ◆ *(Corrective Action) Implementation–Operations (IMP-O)*—The period during which the remedy is in place and operating to achieve the cleanup objective identified in the Decision Document or equivalent agreement. Any system operation or monitoring requirements during this time shall be termed IMP-O (also see “Corrective Measures Study–Operations (CMS-O)” and “Remedial Action–Operations (RA-O)”).
- ◆ *Cost-to-Complete (CTC) Estimate*—The total cost to investigate and clean up a site to the goals established in a Decision Document or equivalent. The CTC estimate will include all costs, including those associated with operations and long-term management, for a total not to exceed 30 years.

- ◆ *Decision Document*—A document that describes the final environmental response or response actions at Army installations regardless of funding source (see Chapter 5). Decision Documents may include:
 - A Removal, Interim Remedial Action (IRA), or Remedial Action (RA) decision at non-CERCLA installations
 - A Record of Decision (ROD) at CERCLA installations, where remedial action decisions have been made
 - Statement of basis or written regulatory approval
 - Explosive Safety Submission approval

- ◆ *Defense Environmental Restoration Program (DERP)*—The Defense Environmental Restoration Program (DERP) was established by Section 211 of the Superfund Amendments and Reauthorization Act (SARA) of 1986. SARA §211 was codified in Title 10 of the United States Code (USC) §2701. Related sections in Title 10 of the United States Code, 10 USC §§2702-2706 and §§2810-2811, further define the program.

Title 10 USC §2701(a) states that the “Secretary of Defense shall carry out a program of environmental restoration at facilities under the jurisdiction of the Secretary.”

The scope of the DERP is defined in 10 USC §2701(b), which states that the “Goals of the program shall include the following: (1) The identification, investigation, research and development, and cleanup of contamination from hazardous substances, and pollutants and contaminants. (2) Correction of other environmental damage (such as detection and disposal of unexploded ordnance) which creates an imminent and substantial endangerment to the public health or welfare or to the environment. (3) Demolition and removal of unsafe buildings and structures, including buildings and structures of the Department of Defense at sites formerly used by or under the jurisdiction of the Secretary.”

The phrase “under the jurisdiction of the Secretary” is further described by 10 USC §2701(c), which states: “The Secretary shall carry out (in accordance with the provisions of this chapter and CERCLA) all response actions with respect to releases of hazardous substances from each of the following: (A) Each facility or site owned by, leased to, or otherwise possessed by the United States and under the jurisdiction of the Secretary. (B) Each facility or site which was under the jurisdiction of the Secretary and owned by, leased to, or otherwise possessed by the United States at the time of actions leading to contamination by hazardous substances. (C) Each vessel owned or operated by the Department of Defense.”

The DERP includes active installations, Base Realignment and Closure, and Formerly Used Defense Sites. Under each program, three categories are identified: Installation Restoration, Military Munitions Response, and Building Demolition and Debris Removal.

- ◆ *Discarded Military Munitions*—Military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage area for the purpose of disposal. The term does not include unexploded ordnance, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed of, consistent with applicable environmental laws and regulations.
- ◆ *Emerging Contaminant or Constituent*—A substance in the environment (air, soil, water) that is natural or introduced by other species that may cause a physiological impact or risk to human health or the environment, is currently undergoing investigation for risk, but is not yet regulated.
- ◆ *Environmental Liabilities*—An obligation to make future expenditure due to past or ongoing activities that adversely affect the environment.
- ◆ *Excess Installations*—A group of installations not covered by BRAC legislation that the Army has identified as excess to operational needs. The ACSIM BRAC Division has been assigned responsibility for property transfer at excess installations.
- ◆ *Feasibility Study (FS)*—The development of alternatives to achieve risk-based cleanup goals at a site. Alternatives are evaluated, at a minimum, on effectiveness, permanence, and cost.
- ◆ *Federally Owned*—Real property owned by, leased to, possessed by, or otherwise under the jurisdiction of the Secretary of Defense or Components, or property where accountability rests with DoD.
- ◆ *Hazardous Substance*—As defined by section 101(14) of CERCLA, any substance designated pursuant to section 311(b)(2)(A) of the CWA; any element, compound, mixture, solution, or substance designated pursuant to section 102 of CERCLA; any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act (42 USC 6901 et seq.) has been suspended by Act of Congress); any toxic pollutant listed under section 307(a) of the CWA; any hazardous air pollutant listed under section 112 of the Clean Air Act (42 USC 7521 et seq.); and any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act (15 USC 2601 et seq.). The term does not include petroleum, including crude

oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance in the first sentence of this paragraph, and the term does not include natural gas, natural gas liquids, liquified natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas)

- ◆ *Hazardous Waste*—As defined in 40 CFR 261.2, a solid waste is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under 40 CFR §261.4(b); and

(2) It meets any of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in subpart C of 40 CFR 261.

(ii) It is a listed hazardous waste identified in subpart D of 40 CFR 261.

(A full definition can be found at <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=a44179687c4ba7354a6330b5b877b346&rgn=div8&view=text&node=40:25.0.1.1.2.1.1.3&idno=40.>)

- ◆ *Initial/Emergency Response Action*—Action taken immediately after a release occurs or is discovered to prevent further migration. Initial/emergency response actions include but are not limited to spill containment, initial cleanup, and disposal of response materials/wastes at the time of occurrence or discovery. An initial/emergency response action is not a CERCLA PA/SI or a RCRA Facility Assessment.
- ◆ *Installation Action Plan*—A tool designed to assist the installation's management of cleanup sites that lists the site cleanup strategy and milestones to reach site closeout.
- ◆ *Land Use Control*—Engineering and/or institutional controls that are established when contamination remains and a decision is made to restrict land use and access. Engineering controls may include signage, fences, and monitoring. Institutional controls are more administrative in nature, such as dig permits, covenants, easements, and notations on the installation master plan.
- ◆ *Liability*—A probable future sacrifice of economic benefits arising from present obligations to transfer assets or provide services in the future as a result of past transactions or events.

- ◆ *Long-Term Management (LTM)*—Term used for environmental monitoring, review of site conditions, and/or maintenance of a response action to ensure continued protection as designed once a site achieves Response Complete. Examples of LTM include landfill cap maintenance, leachate disposal, fence monitoring and repair, 5-year review execution, and land use control enforcement actions. This term should be used until no further environmental restoration response actions are appropriate or anticipated. LTM is reserved for monitoring once a site achieves Response Complete, and must not be used to refer to monitoring after Remedy in Place (this includes sites for which the selected remedy is natural attenuation).
- ◆ *Material Change*—If there is material change; the estimator must document the reasons for the material change in the database. A material change is defined as a 10 percent difference in cost, whether positive or negative, between the spring CTC requirements for a given year as compared to previous spring's CTC requirements (see CTC guidance). Such changes may be the result of (but are not limited to) project execution or change in project scope. This comparison does not consider obligated funds in the analysis. If the database identifies a material change based on the exclusion of an executed phase, select "obligations" as the Material Change Justification.
- ◆ *Military Munitions*—All ammunition products and components produced or used by or for the U.S. Department of Defense or the U.S. Armed Services for national defense and security as described in 10 USC 2710(e)(3)(a).
- ◆ *Military Munitions Response Program (MMRP)*—The MMRP was established in 2001 to manage the environmental, health, and safety issues presented by unexploded ordnance (UXO), discarded military munitions (DMM), and munitions constituents (MC). The MMRP is an element of the DERP, under which the Secretary of Defense carries out environmental restoration resulting from historical activities. Under the MMRP category, the Army may conduct munitions response activities to address munitions and explosives of concern (MEC) or MC when (1) the release occurred prior to 30 September 2002; (2) the release is at a site that is not a FUDS, an operational range, an active munitions demilitarization facility, or an active waste military munitions (WMM) treatment or disposal unit that operated after 30 September 2002; and (3) the site's MMRP costs were not identified or included in AEDB-R prior to 30 September 2000.
- ◆ *Munitions and Explosives of Concern (MEC)*—Description that distinguishes specific categories of military munitions that may pose unique explosives safety risks, including: (a) unexploded ordnance (UXO), as defined in 10 USC 2710(e)(9) military munitions that have been primed, fused, armed, or otherwise prepared for action, and have been fired, dropped, launched, projected, or placed in such a manner as to constitute a

hazard to operations, installations, personnel, or material and remain unexploded either by malfunction, design, or any other cause; (b) discarded military munitions (DMM), as defined in 10 USC 2710(e)(2); and (c) munitions constituents (e.g., TNT, RDX) present in high enough concentrations to pose an explosive hazard.

- ◆ *Munitions Constituents (MC)*—Materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions.
- ◆ *Munitions Response*—Response actions, including investigation, removal actions, and response actions to address the explosives safety, human health, or environmental risks presented by unexploded ordnance, discarded military munitions, or munitions constituents.
- ◆ *No Further Action*—A written regulator concurrence that no further response action is required. An NFA determination does not necessarily include maintenance of land use controls.
- ◆ *Non-Federally Owned, Federally Supported*—A term that describes non-federally owned installations, facilities, activities, and properties that currently receive or have received federally appropriated funds, or are used to support the federal missions of the ARNG. Such missions include but are not limited to the training of troops, the firing of military munitions, and any other operation required for maintaining their status as a reserve component of the U.S. military.
- ◆ *Operational Range*—A military range that is currently in service and is being regularly used for range activities, or a military range that is not currently being used, but is still considered by the military to be a potential range area, and that has not been put to a new use that is incompatible with range activities.
- ◆ *Operational Range Assessment*—The Army's operational range assessments support the Army's Sustainable Range Program and are designed to fulfill the requirements of the Department of Defense Directive 4715.11 and its associated Department of Defense Instruction 4715.11.14. The Army's Operational Range Assessment Program (ORAP) will be conducted in two phases, a Phase I (Qualitative) and, where necessary, a Phase II (Quantitative) assessment.
 - Phase I (Qualitative) assessments will be conducted on all ranges in the Army's Operational Range Inventory (FY05–FY09). Phase I assessments will evaluate whether further investigation is needed to determine if potential munitions constituents of concern (MCOC) are or could be migrating off-range at levels that may

pose an unacceptable risk to human health or the environment. Phase I assessments involve the use of readily available information (no sampling) to construct a conceptual site model (CSM) of the operational ranges on a facility to identify potential MCOC sources, off-range migration pathways, and potential human and ecological receptors. The recommendations of the Phase I assessments will fall under the following three categories: (1) Unlikely—Five Year Review; (2) Inconclusive—Phase II Quantitative Assessment Required; or (3) Referred. Sites in the “Unlikely” category will be reevaluated at least every 5 years to determine if the conditions found during the initial review are still valid. “Inconclusive” category ranges will be subject to a Phase II assessment. “Referred” ranges will be referred to the Compliance-related Cleanup Program for further action.

- Phase II (Quantitative) assessments will be conducted on all “Inconclusive” ranges identified during the Phase I assessment. The Phase II assessments will include sampling of media (surface water, groundwater, soil, sediments) identified in the Phase I CSM as representing potential off-range migration pathways. The Phase II assessments will use regulatory accepted processes (data quality objectives (DQOs)) to help determine the appropriate number and location of samples. Any sampling conducted during Phase II will utilize approved analytical methods. The outcome of the Phase II assessments will be to place the ranges in either the previously mentioned “Unlikely” or “Referred” categories. It is anticipated that the Phase II assessments will start in FY10.
- ◆ *Other Than Operational Range*—A range that is no longer used for training but (a) remains under Army control (closed); (b) is no longer under military control and has been transferred to another entity (transferred); and (c) is proposed to be transferred or returned from DoD to another entity (transferring).
- ◆ *Overseas Remediation* (extract from DoDI 4715.8)—Overseas remediation differs from Continental United States (CONUS) cleanup in the determination of risk, decision-making authority, and cleanup requirements.

The DoD Components shall take prompt action to remedy known imminent and substantial endangerments to human health and safety due to environmental contamination that was caused by DoD operations and that is located on or is emanating from a DoD installation or facility. The DoD Components shall also take prompt action to remedy known imminent and substantial endangerments to human health and safety due to environmental contamination caused by current DoD operations at locations within the territory of a nation other than the United States and that is not located on or emanating from a DoD installation or facility. After consul-

tation with the DoD Environmental Executive Agent, if any, the in-theater commander of the DoD Component may approve additional remediation of environmental contamination if the commander determines the additional remedial measures are required to maintain operations, protect human health and safety, or implement a site-specific remediation plan.

The decision as to whether a contaminated site poses an imminent and substantial endangerment shall be made by the in-theater commander of the DoD Component after consultation with the appropriate DoD medical authority and the DoD Environmental Executive Agent, if any, for the respective host nation. Projects designed to remedy an imminent and substantial endangerment are considered complete when the contamination no longer poses an imminent and substantial endangerment to human health, environment, and safety. Commanders have the discretion to make risk-based decisions on how to carry out the remediation, ranging from institutional responses, such as restricting access, to more permanent remedies.

International agreements may also require the United States to fund environmental remediation. Such remediation may be more extensive than that necessary to remedy known imminent and substantial endangerments to human health and safety. Before a DoD Component begins remediation under such an agreement, it shall consult with the DoD Environmental Executive Agent, if any, and shall obtain a legal determination that the requirement for environmental remediation is mandatory and arises from a binding international agreement that pertains to U.S. military operating rights in the host country.

Remediation beyond that specified by the DOD Environmental Executive Agent as legally required may be undertaken by the host nation using its own resources. The DoD Components shall encourage such remediation and cooperate with host-nation efforts by providing the information and appropriate access to contaminated sites, subject to operational and security requirements. After return of an installation or facility to the host nation, the DoD shall not fund any environmental remediation in excess of that required by binding international agreement or that which is pursuant to an approved remediation plan.

- ◆ *Periodic Review*—A review conducted when contamination remains at a site and a decision is made to restrict land use and access. The land use controls are inspected to ensure that the remedy remains protective and effective. Activities may include measures to determine if the land use control is still required.
- ◆ *Permanent Cleanup Document Repository (PCDR)*—An electronic document database that serves as an information repository of environmental cleanup documents for Army installations and facilities. The PCDR does

not replace the installation project file required under AR 25-400-2 (ARIMS) nor serve as an Administrative Record (if required).

- ◆ *Project*—Response activities required to investigate and clean up contamination. Several projects may be ongoing at a site entered into AEDB-CC (e.g., soil removal, groundwater cleanup).
- ◆ *Record of Decision*—A CERCLA cleanup public document that explains which cleanup alternatives will be used to clean up a site. The ROD is created from information collected during an investigation (e.g., RI/FS).
- ◆ *Release*—Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment. The term also includes abandoned or discarded barrels, containers, and other closed receptacles containing hazardous wastes or constituents of hazardous materials.
- ◆ *Remedial Action*—For purposes of this guidance, those actions taken instead of, or in addition to, a removal action to eliminate unacceptable threats to human health and the environment associated with the release of contaminants at Army sites.
- ◆ *Remedial Action–Construction (RA-C)*—The period during which the final remedy is being put in place. The end date signifies that the construction is complete, all testing has been accomplished, and the remedy will function properly (also see “Corrective Measures Study–Construction (CMS-C)” and “(Corrective Action) Implementation–Construction (IMP-C)”).
- ◆ *Remedial Action Cost Engineering and Requirements (RACER)*—A verified, validated, and accredited parametric cost estimating software model designed to provide the total cost to clean up a site, from initiation to final reporting.
- ◆ *Remedial Action–Operations (RA-O)*—The period during which the remedy is in place and operating to achieve the cleanup objective identified in the Record of Decision or equivalent agreement. Any system operation or monitoring requirements during this time shall be termed RA-O (also see “Corrective Measures Study–Operations (CMS-O)” and “(Corrective Action) Implementation–Operations (IMP-O)”).
- ◆ *Remediation*—Term used to define cleanup process and actions overseas. Overseas remediation differs from CONUS cleanup in the determination of risk, decision-making authority, and cleanup requirements (see “Overseas Remediation”).
- ◆ *Remedy in Place (RIP)*—Site designation that a final response action has been constructed and implemented and is operating as planned in the remedial design. An example of a remedy in place is a pump-and-treat sys-

tem that is installed, is operating as designed, and will continue to operate until cleanup levels have been attained. Because operation of the remedy is ongoing, the site cannot be considered Response Complete.

- ◆ *Removal*—The cleanup or removal of released hazardous substances from the environment. Such actions may be taken in the event of the threat of release of hazardous substances into the environment; such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances; the disposal of removed material; or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release. The term includes, in addition, without being limited to, security fencing or other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under section 9604(b) of Title 42, The Public Health and Welfare, Chapter 103 Comprehensive Emergency Response, Compensation, and Liability, Subchapter I Hazardous Substances Releases, Liability Compensation, (42 USC 9604 et seq.) and any emergency assistance which may be provided under the Disaster Relief and Emergency Assistance Act (42 USC 5121 et seq.). The requirements for removal actions are addressed in 40 CFR §§300.410 and 300.415. The three types of removals are emergency, time-critical, and non-time-critical.
- ◆ *Response Complete (RC)*—Site designation in which the remedy is in place, the cleanup objectives outlined in the decision document have been met, and required remedial action–operations (RA-O) have been completed. If there is no RA-O phase, then the remedial action–construction end date will also be the RC date.
- ◆ *Site*—A physically defined location which can be supported by a legal boundary survey which closes a polygon. It can be owned, leased, or otherwise possessed or used. A site may exist in one of three forms: land only; facility or facilities only; or land and all the facilities on it. A site is the sum of all real property at a specific location.
- ◆ *Site Closeout*—The point at which DoD will no longer engage in active management or monitoring at an environmental cleanup site and no additional environmental funds will be expended unless additional cleanup is required. For practical purposes, site closeout occurs when cleanup goals are achieved that allow unrestricted use of the property (i.e., no further LTM is required, including institutional controls). This definition applies to DERP and compliance-related cleanup.
- ◆ *Special Installation*—An installation that primarily uses funds other than operation and maintenance funds to conduct traditional garrison operations in support of its primary mission. Special installations are generally small

industrial facilities that typically do not have a stand-alone installation staff. Command, control, manpower, and funding remain with the Army Commands. Several fund types are used in the operation of special installations, including: Army Working Capital Funds (AWCFs); Transportation Working Capital Funds (TWCFs); Chemical Program funds; Defense Health Program (DHP) funds; Procurement Army Ammunition (PAA) funds; and Research, Development, Test, & Evaluation (RDT&E) funds.

- ◆ *Supporting Documentation*—The supporting original records and source documents identifying key features or parameters used to develop the cost-to-complete estimate.
- ◆ *Transferred Range*—Now referred to as non-operational or other than operational range. A property formerly used as a military range that is no longer under military control and had been leased by DoD, transferred, or returned from the DoD to another entity, including federal entities. This includes a military range that is no longer under military control but was used under the terms of a withdrawal, executive order, special-use permit or authorization, right-of-way, public land order, or other instrument issued by the federal land manager. These ranges are not only in FUDS but could also be in active or BRAC installations.
- ◆ *Transferring Range*—Now referred to as non-operational or other than operational range. A military range that is proposed to be transferred or returned from DoD to another entity, including federal entities. This includes a military range that is used under the terms of a withdrawal, executive order, act of Congress, public land order, special-use permit or authorization, right-of-way, or other instrument issued by the federal land manager or property owner. An operational or other than operational (closed) range will not be considered a “transferring range” until the transfer is imminent. These ranges are not only in BRAC but could also be in active installations.
- ◆ *Unexploded Ordnance*—Military munitions that have been primed, fused, armed, or otherwise prepared for action, and have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material and remain unexploded either by malfunction, design, or any other cause.

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Appendix C

Acronyms

ACSIM	Assistant Chief of Staff for Installation Management
AECS	Army Environmental Cleanup Strategy
AEDB	Army Environmental Database
AEDB-CC	Army Environmental Database-Compliance-related Cleanup
AEDB-R	Army Environmental Database-Restoration
AERO	Army Reporting Online
AMS	Army Management Structure
APPN	appropriations
AKO	Army Knowledge Online
AMC	U.S. Army Materiel Command
ACOM	Army Command
ARIMS	Army Record Information Management System
ARNG	Army National Guard
ASA(I&E)	Assistant Secretary of the Army (Installations and Environment)
AST	above-ground storage tank
BD/DR	building demolition/debris removal
BRAC	Base Realignment and Closure
CAP	Corrective Action Plan
CC	compliance-related cleanup
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CMI	Corrective Measures Implementation
CMI-C	Corrective Measures Implementation—Construction
CMI-O	Corrective Measures Implementation—Operations
CMS	Corrective Measures Study
CONUS	Continental United States
CONOPS	contingency operations
CTC	cost to complete
CWA	Clean Water Act

DASA	Deputy Assistant Secretary of the Army
ESOH	environment, safety, and occupational health
DD	Decision Document
DAIM	Department of Army, Installation Management
DERP	Defense Environmental Restoration Program
DES	design
DFAS	Defense Finance and Accounting Service
DoD	Department of Defense
DoDI	DoD Instruction
EBS	environmental baseline survey
ELS	environmental law specialist
ENV	environmental
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
FMR	Financial Management Regulation
FOIA	Freedom of Information Act
FS	feasibility study
FUDS	Formerly Used Defense Site
FRA	Final Remedial Action
FTE	full-time equivalent
FY	fiscal year
GIS	Geographic Information Systems
HQDA	Headquarters Department of Army
HRS	Hazard Ranking Score
IAP	Installation Action Plan
IC	institutional control
ID	identifier
IGCE	independent government cost estimate
IMCOM	Installation Management Command
IMP	implementation
IMP-C	implementation—construction
IMP-O	implementation—operations
INV	investigation
IRA	Interim Remedial Action
LTM	long-term management
LUCs	land use controls

MC	munitions constituents
MDEP	Management Decision Package
MEC	Munitions and Explosives of Concern
MEDCOM	U.S. Army Medical Command
MFR	Memorandum for Record
MMR	Massachusetts Military Reservation
MMRP	Military Munitions Response Program
MSC	Major Subordinate Command
MSWLF	municipal solid waste landfill
N-ENV	non-environmental
NFA	no further action
NGB	National Guard Bureau
NPL	National Priorities List
ODEP	Office Director of Environmental Programs
OM	operation and maintenance
ORAP	Operational Range Assessment Program
PA	Preliminary Assessment
PCDR	Permanent Cleanup Document Repository
PM	program manager
PMP	Program Management Plan
POM	Program Objective Memorandum
QA	quality assurance
QC	quality control
RA	remedial action
RA-C	remedial action—construction
RACER	Remedial Action Cost Engineering and Requirements
RA-O	remedial action—operation
RC	response complete
RCRA	Resource Conservation and Recovery Act
RD	remedial design
RDTE	research, development, test, and evaluation
RFA	RCRA facility assessment
RFI	RCRA facility investigation
RI	remedial investigation
RI/FS	remedial investigation/feasibility study

RIP	remedy in place
ROD	Record of Decision
RPM	remedial program manager
RRCs	Regional Readiness Command
SI	site inspection
SMDC	U.S. Army Space and Missile Defense Command
SOFA	Status of Forces Agreement
SRM	sustainment, restoration, and modernization
SWMU	Solid Waste Management Unit
TAG	The Adjutant General
TSCA	Toxic Substances Control Act
USACE	U.S. Army Corps of Engineers
USAEC	U.S. Army Environmental Command
USAR	U.S. Army Reserves
USARC	U.S. Army Reserve Command
UST	underground storage tank
UTM	Universal Transverse Mercator
VENC	Management Decision Package code for environmental compliance
VEMR	Management Decision Package code for environmental support for ranges and munitions

Appendix D

Eligibility Scenarios for Compliance-related Cleanup

Cleanup of contaminants that have been disposed, spilled, or otherwise released by Army activities in the environment and that require a response beyond initial/emergency response actions may be eligible for the Compliance-related Cleanup (CC) Program. These actions include site-level projects undertaken to further investigate, and when necessary, to conduct response actions to address a release of contaminants at Army sites. Broad CC categories include response actions to address:

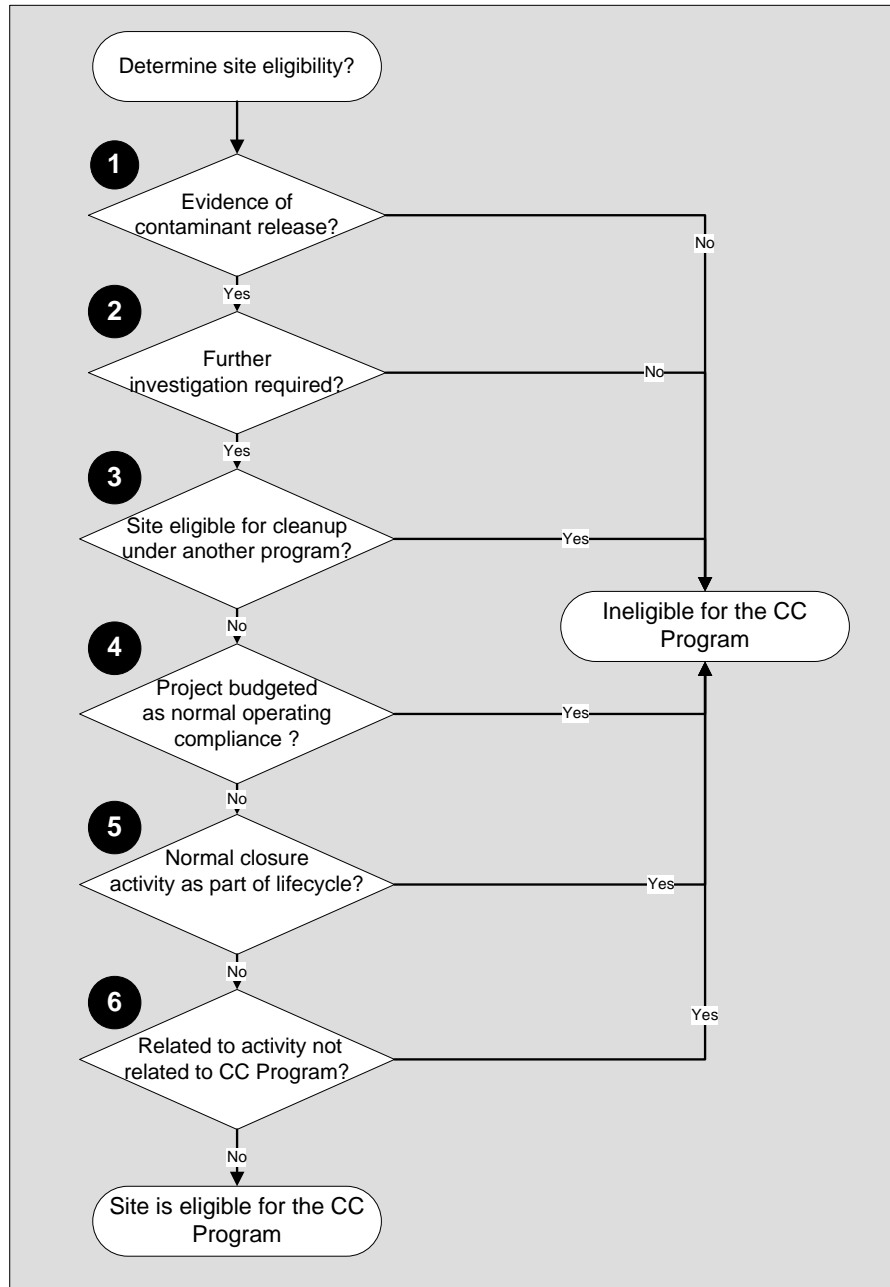
- ◆ Releases under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or Resource Conservation and Recovery Act (RCRA) corrective action that are not eligible for the Defense Environmental Restoration Program (DERP)
- ◆ Cleanup mandated under authority of federal and/or state environmental laws
- ◆ Releases from hazardous waste treatment, storage, disposal facilities, or solid waste landfills undergoing RCRA closure
- ◆ Releases from a RCRA underground storage tank (UST) if it was in service as of 17 October 1986 or if on non-federally owned, federally supported property
- ◆ Contamination caused by the Army beyond the installation boundary, where necessary to protect human health and the environment
- ◆ Contamination at overseas installations as prescribed by DoDI 4715.8
- ◆ Contamination at non-federally owned, federally supported Army National Guard (ARNG) sites.

On the next page a series of questions are asked that can assist with eligibility determinations, per DASA (I&E) memorandum “Army Environmental Compliance-related Cleanup Program Eligibility” of 18 June 2004.

CC ELIGIBILITY REVIEW

Figure D-1 provides a series of questions that need to be answered to determine if a site or project is eligible under the CC Program.

Figure D-1. Eligibility Review Chart



- ◆ **Evidence of a release** includes visual, analytical, documented sources, where the release is by the Army at an Army-owned facility.
- ◆ **Further investigation** is required by federal or state regulatory agencies beyond the initial response.
- ◆ **Eligible under another cleanup program** means where the release was before 17 October 1986 and is eligible under DERP, including FUDS and MMRP (for other than operational ranges).

- ◆ ***Normal operating compliance as part of the facility lifecycle*** includes but is not limited to hazmat facility construction, storage, treatment, disposal fees, and planning.
- ◆ ***Normal closure activities*** include but are not limited to removal of operating tanks, closure of an operational landfill, and closure of an operational RCRA permitted facility. They include those activities required to implement the closure plan of a permitted facility where no release is evident, and those activities required to implement regulatory best management practices for closing an interim status facility where no release is evident.
- ◆ ***Non-CC-related activity*** includes but is not limited to building demolition or debris removal and operational range activities.

Eligibility of Overseas Sites

Overseas sites must comply with DoDI 4715.8 to be eligible under the CC. Cleanup projects must comply with the DoDI to be approved beyond the FS phase.

TYPICAL CC PROJECTS

The following scenarios are some examples of CC-eligible projects:

1. After the initial containment, removal, and disposal of contaminated materials due to a spill at a treatment, storage, and disposal facility (TSDF), you further investigated and took response action to address contamination of soil, surface water, or groundwater.
 - Eligible because: Investigation and response action went beyond the initial/emergency response action, and there was evidence of contamination.
2. After initial confirmation sampling at a leaking UST to determine that a release occurred, you further investigated and took response action.
 - Eligible because: Investigation and response actions were conducted after the initial confirmation sampling. However, removal and disposal of the tank system (and backfill material) is considered a normal closure activity and is an SRM-funded activity.
3. While preparing to close a permitted TSDF that has been in use since 1988, you discovered contaminated soil, which you further investigated, and took response action to remedy the situation.

- Eligible because: Involves investigation and cleanup under RCRA corrective action that is not eligible for DERP, because facility was still in use post-1986. Closure activities are operational costs.
4. Just beyond the fence line of your installation, local authorities discovered a plume. It appears to be coming from a TSDF, which has been operational since 1990. It may be slowly migrating toward a local groundwater source, so you further investigated and prevented the spread of contamination.
- Eligible because: Involves investigation and cleanup of RCRA permit corrective action for known contamination that is not eligible for DERP, as the facility is still operational. The CC Program Manager is required to notify DASA (ESOH) of off-installation response actions through the chain of command per AR 200-1.
5. A subdivision is encroaching the side of your installation where the contaminant release from the TSDF (operational since 1990) is located; your base commander decided to close and relocate it.
- Eligible because: Involves cleanup under RCRA corrective action where a release of contamination occurred, but closure and relocation activities are operational expenses.
6. Corrective Action Plan of the RCRA part B, subpart X permit requires the installation to investigate the range area open burn/open detonation (OB/OD) unit. The OB/OD unit consists of an open detonation area (trench) and an open burn area (burn pan). Results of soil and groundwater sampling indicated organics at concentrations above regulatory levels.
- Eligible because: The purpose of the cleanup action is to address the SWMU or the RCRA facility and not the range activity or UXO as an explosive hazard. Disposal of equipment (burn pan) and removal of treated waste (ash and metal parts) is considered a closure activity. The remainder of the actions necessary to address contaminated soil and groundwater is considered cleanup.

Note: Munitions on other than operational ranges are addressed through the MMRP. The ORAP addresses migration of contaminants off range.

7. After initial response at the previously leaking UST is complete, you are operating and maintaining pump-and-treat equipment and monitoring as a remedy in place.
- Eligible because: Involves cleanup operation, maintenance, and monitoring associated with a CC project after instituting the remedy.

8. The pump-and-treat system was shut down and removed, but the regulators require another 5 years of monitoring to ensure that the remedy is successful.
 - Eligible because: Post-cleanup monitoring and maintenance associated with a CC project after the cleanup goals are met is long-term management.
9. During construction of a new sewer system, a contaminated area with several drums was discovered. All work and activities were stopped so the site could be investigated.
 - Eligible because: Determining if other drums and additional contamination is present is considered cleanup activities. Removal of other drums present (if feasible) is part of the cleanup process.
10. A landfill was investigated (remedial investigation) under DERP, and results of groundwater sampling indicated organics at concentrations below regulatory level. It was determined that no further action was required based on risk. State regulations still require monitoring and a final cover.
 - Eligible because: State regulations require final cover as part of remedy to reduce risk. Groundwater monitoring is required to ensure that organic concentrations stay below regulatory levels, since a release was identified.

Note: Any increase in contaminant level above regulatory limits places the site back in DERP.

PROJECTS WITH SOME ACTIVITIES ELIGIBLE FOR CC PROGRAM

The following scenarios are examples of projects where some but not all activities are eligible for CC:

1. A permitted MSWLF was in use past the date when current standards were promulgated (e.g., 1988) and remained in use as part of the installation's base operations. A decision was made to close the landfill and perform post-closure care. Monitoring well data does not indicate any contaminants in the groundwater. A leachate control system is in place but not functioning.
 - Ineligible activities (not cleanup): Since the landfill was permitted and met operating standards (or was upgraded to operating standards) for use as part of the base operations, any actions within the engineering

controls of the facility are considered closure activities. These actions include:

- Preparation of a closure plan*
- Final cover placed on the landfill
- Installation of other control systems (such as for methane gas) if required
- Repairs to the leachate collection system and other repairs to engineering control equipment
- Disposal of leachate and other wastes on the site*
- Erosion control and cap maintenance
- Groundwater monitoring associated with closure.

*Note: Preparation of a closure plan may be funded through an environmental account but are not considered cleanup in the case and are not entered in the AEDB-CC database.

- Eligible activities: Response actions to address contamination outside the engineering controls.
2. A permitted MSWLF was in use past the date when current standards were promulgated (e.g., 1988) and remained in use as part of the installation's base operations. A decision was made to close the landfill and perform post-closure care. Monitoring well data indicates organic contaminants in the groundwater. A leachate control system is in place but not functioning.
- Ineligible activities (not cleanup): Since the landfill was permitted and met operating standards (or was upgraded to operating standards) for use as part of the base operations, any actions within the engineering controls of the facility are considered closure activities. These actions include:
 - Preparation of a closure plan
 - Final cover placed on the landfill
 - Installation of other control systems (such as for methane gas) if required.
 - Repairs to the leachate collection system and other repairs to engineering control equipment

Compliance-Related Cleanup Eligibility Scenarios

- Disposal of leachate and other wastes on the site
 - Erosion control and cap maintenance.
 - Eligible activities:
 - Investigations and activities associated with corrective actions
 - Groundwater monitoring associated with corrective actions.
3. The OB/OD unit will soon close or is in the closure process. Results of groundwater sampling indicated organics at concentrations near regulatory level. A determination on a requirement for groundwater cleanup has not been made.
- Ineligible activities (not cleanup): Removal of waste and equipment at facility is part of closure and not a cleanup action.
 - Eligible Activities: Regulatory-mandated groundwater monitoring to track contaminant levels to plot fate and transport trends for assessing risk and determining response.
4. A site was cleaned up under DERP. The DERP closed out the site because the soil cleanup was completed and groundwater contamination is below documented cleanup/risk-based limits. The only remaining requirement is groundwater monitoring to ensure that contamination continues to degrade. Or, a site was closed out under DERP because the contamination is below action levels and no cleanup is required based on risk. The commander wants the Environmental Office to fund the groundwater monitoring and any additional cleanup required by the regulators.
- Ineligible activities:
 - Costs for maintenance of regulatory closure requirements
 - Any rebound or increase in contaminants above action levels re-opens the site under the DERP.
 - Eligible activities: Regulatory-mandated groundwater monitoring to track contaminant levels to plot fate and transport trends for assessing risk and determining corrective actions.

PROJECTS INELIGIBLE FOR CC PROGRAM

The following scenarios are some examples of ineligible projects and the reasons for their ineligibility:

1. Initial containment, removal, and disposal of contaminated materials are necessary for a spill at an operating TSDF that has been in use since 1988.
 - Not eligible because: Investigation and response involves contamination resulting from post-1986 activities *associated with initial/emergency response action*.
2. Response actions associated with operational deployment and contingency operations (CONOPS).
 - Not eligible because: Actions to address contamination are at a site that is not an overseas, permanent installation.
3. There is no evidence or record of a spill at a motor pool, but the installation wants to perform a site investigation because hazardous materials are managed at the facility.
 - Not eligible because: Program is not used for conducting investigations for just collecting site information. There has to be a legal requirement, evidence, or documentation of a release at the facility. Just the type of operations conducted and the fact that chemicals and wastes are managed at a particular facility are not enough.
4. Before removing an old UST, your base commander wants to conduct initial sampling to determine if contamination is present.
 - Not eligible because: CC eligibility does not include removal or disposal of above-ground or underground storage tanks, including initial sampling to determine if contamination is present.
5. An active range has been cleaning up its UXO, and the base commander wants you to provide funds to dispose of it through a contractor.
 - Not eligible because: CC eligibility does not include UXO clearance on an operational range.
6. Your installation has recently torn down the physical structure that surrounded your TSDF, but the uncontaminated debris is still there.
 - Not eligible because: CC eligibility does not include building demolition or debris removal (BD/DR).

Compliance-Related Cleanup Eligibility Scenarios

7. Your installation's hazardous waste is currently being stored in the proper manner within your TSDF, and the base commander wants you to provide funds to dispose of it through a contractor.
 - Not eligible because: CC eligibility does not include routine hazardous waste treatment, storage, or disposal.
8. The TSDF at your installation has been operating normally, but needs expansion to handle increased operational tempo.
 - Not eligible because: CC eligibility does not include construction, upgrade, operation, maintenance, or demolition of hazardous waste treatment, storage, or disposal facilities.
9. A fee assessment arrives in the mail for your installation's RCRA Subpart X permit, and the base commander wants you to provide funds.
 - Not eligible because: CC eligibility does not include operating permit fees.
10. The hazardous waste management plan, spill prevention, control and countermeasures (SPCC) plan, and emergency response plan at your installation are all out of date and require revision.
 - Not eligible because: CC eligibility does not include development, implementation, or revision of routine plans pertaining to hazardous waste or material management.
11. Landfill closure and capping as part of permit activity.
 - Not eligible because: These activities are considered part of the life cycle costs for operating the facility. The closure plan is an environmental project, but not a compliance-related cleanup project. If there is a release, the cleanup is CC eligible, but the cap is not covered.
12. During construction of a new barracks, a dump site was discovered. The dump site contained six drums of an unknown substance. The drums and all contaminated media were removed, with no further action required.
 - Not eligible because: All contamination was removed as an initial response without further action being required.

Note: If the drums and contaminated media had been identified before construction began, then the entire action would be programmed through the AEDB-CC database.

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Appendix E

QC Plan and Example QC and Site Approval Checklist

This appendix provides a QC plan and an example QC and Site Approval Checklist.

QC PLAN

After each data call ends for installation entry, the CC Program Managers conduct a review of the sites in the AEDB-CC database. The checklist they use to review the AEDB-CC sites is found at Table E-1.

Their review includes site information, site funding information, and CTC documentation. The CC PMs will review, at a minimum, the items on the checklist for each site under their purview. They may delegate this responsibility to the region, state, or Major Subordinate Command (MSC) level, but no lower. The QC process includes the following steps:

- ◆ Review the AEDB-CC data for completeness and accuracy:
 - Installation information
 - Site information
 - Program management.
- ◆ Review supporting documentation to verify that CTC estimates are auditable.
- ◆ Provide feedback to the submitter for correction.
- ◆ Verify that corrections were made in a current or future data call.

QC comments may be provided in several ways:

- ◆ Site QA/QC screens
- ◆ QC and Site Approval Checklist
- ◆ Email or verbal communications.

After reviewing the AEDB-CC and supporting documentation, the CC PMs evaluate installation data for approval for submission to the next level. The CC PMs who conducted the review sign the checklist. The checklist may be uploaded to the AEDB-CC under the Installation General Information screen at the CTC QC/QA Review area.

QC AND SITE APPROVAL CHECKLIST

During their review of AEDB-CC sites, CC PMs may use the checklist shown in Table E-1.

Table E-1. Example QC and Site Approval Checklist

INSTALLATION	Site	Site
	CCFTK-001	CCFTK-002
1. General Information—Do the site/historic narratives contain the following?		
a. Site conditions (e.g., soil, groundwater)		
b. Type contamination		
c. Contaminant levels		
d. Correct law, regulation, order, statute, or driver mandating cleanup		
e. Proposed cleanup strategy		
f. Key documents supporting the strategy		
g. Past uses, types of activities (processes), and occupants		
h. Environmental history (e.g., investigations, known releases, sampling, cleanup actions, closures)		
2. Remedial Actions		
a. Do the response actions make sense?		
b. Do the response actions address what was discussed in the narrative?		
c. Are they consistent with the phase schedules?		
3. Phase Schedule		
a. Is it reasonable and achievable (studies relative to the actions)?		
b. Is it consistent with the funding spread and response actions (i.e., dates correct)?		
c. Is it consistent with the cleanup strategy in the narrative?		
4. Cost Estimate and Requirements		
a. Has correct estimate source been identified?		
b. Have material changes (cost change +/- 10%) been adequately explained? (if applicable)		
c. Have zero cost estimates been explained? (if applicable)		
d. Has an adequate CTC source document been uploaded?		
e. Is it complete and legible, and does it support the estimate?		
f. If RACER was used, was the .mdb file uploaded correctly?		
g. Were obligations entered?		

Table E-1. Example QC and Site Approval Checklist (Continued)

INSTALLATION	Site	Site
	CCFTK-001	CCFTK-002
5. Memorandum for Record (MFR)		
a. Does the MFR support the estimate and explain assumptions?		
b. Does the MFR have two signatures?		
c. Does the MFR contain and explain the following:		
1. background information		
2. disposal/cleanup strategy		
3. calculation summary (clearly explains any calculations done to complete estimate)		
4. quantities (e.g., cubic yards)		
5. cost per unit (major cost elements)		
6. other cost elements (utilities, etc.) (if applicable)		
7. major project changes (if applicable)		
8. cost adjustments (if applicable)		
6. Supervisory Review Checklist		
a. Is a supervisory review checklist attached, legible, signed, and dated?		
b. Are the correct sites and site IDs listed?		
7. Program Management Costs		
a. Have the program management costs been entered?		
b. Do they look reasonable (e.g., 8-10% of annual costs)?		

Signature: _____ Date: _____

Signature: _____ Date: _____