DEPARTMENT OF THE ARMY
ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
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WASHINGTON, DC 20310-0600

DAIM-ZA

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MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Army Defense Environmental Restoration Program (DERP) Guidance Documents for Active and BRAC Installations

1. References:

a. Army Defense Environmental Restoration Program Management Guidance for Active Installations, November 2004 (Encl 1).

b. Army Defense Environmental Restoration Program Management Guidance for Base Realignment and Closure (BRAC) Installations, November 2004 (Encl 2).

2. The references provide supplemental guidance to AR 200-1 and DA Pamphlet 200-1 for management of the Army's environmental restoration programs at active and BRAC installations. These documents replace existing guidance last provided in 1999. They incorporate changes necessitated by the Transformation of Installation Management reorganization, as well as several management initiatives developed in the last few years.

2 Encls

for LARRY J. LUST
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Army Defense Environmental Restoration Program:

Management Guidance for Active Installations

NOVEMBER 2004

Contents

Preface

This management plan supplements the roles, responsibilities, and procedures contained in Army Regulation 200-1 (AR 200-1) and the accompanying Department of the Army Pamphlet 200-1 (DA PAM 200-1) and provides guidance to implement the Army's Defense Environmental Restoration Program (DERP) in accordance with the *Department of Defense (DoD) Management Guidance for theDefense Environmental Restoration Program*

SUMMARY OF CHANGES TO THE ARMY DERP

Several important changes have occurred in the Army DERP since the March 1999 version of this guidance was released:

- Installation Restoration Program (IRP) Qualification - The October 1986 date to qualify for inclusion in the Army's IRP must be strictly adhered to. Installations may perform only those studies necessary to ascertain the need for remedial action, identify the preferred remedial alternative, and implement the selected remedial action. See Section 2.2

- Military Munitions Response Program (MMRP) - The MMRP is now a program category of the DERP. The Army must develop and maintain an inventory of sites that have known or suspected (UXO), discarded military munitions (DMM), or munitions constituents (MC). Installations must submit (1) Explosive Safety Submissions (ESS) Chemical Safety Submissions (CSS) and/or explosive or chemical warfare material (CWM) site plans; and (2) the explosives safety provisions (e.g., land use controls or explosive safety-related notices) of transfer documents (e.g., leases, deeds, findings of suitability for transfer) for property known or suspected to contain MEC or residual explosive hazards through USATCES, to the Department of Defense Explosive Safety Board (DDESB) for munitions responses to munitions and explosives of concern (MEC). See Section 2.3.

- Transformation of Installation Management (TIM) – With the elimination of major Army commands in the installation management process, the environmental chain of command and the management of Army restoration programs have been significantly altered. See Sections 3.1, and 5; and Appendices A and B.

- Army Cleanup Strategy and Strategic Plan - In 2003, the Army identified program goals in its Army Cleanup Strategy and corresponding Strategic Plan. The primary goals are to identify common objectives for creating consistency and accountability across the Army's cleanup program and to

provide direction to implement a cost efficient program. You may refer to Section 4.1 and Appendix H of this guide.

- Army Environmental Database-Restoration (AEDB-R) - The AEDB-R has replaced the Defense Site Environmental Restoration Tracking System (DSERTS) and the Restoration Cost-to-Complete System (RCTCS), as the primary database of installations and their cleanup sites currently under the Army DERP, including MMRP category sites. See Section 4.2.2.

- Cost-to-Complete (CTC) – Estimates must be fully auditable; Remedial Action Cost Engineering and Requirements (RACER) is the required system to develop CTC estimates while investigations are underway; and installation personnel must complete mandatory RACER training. See Section 4.2.5

- Military Construction (MILCON) – Although the DoD Management Guidance for the DERP stated that work classification would be strictly enforced, the FY03 Defense Authorization Act (Section 313) reversed that directive. MILCON funds will not be used for environmental restoration projects. See Section 4.4.3.

- Non-Base Realignment and Closure (BRAC) Excess Properties - Although the Army funds DERP for these designated properties with Environmental Restoration, Army, (ER,A), the ACSIM BRAC Division has responsibilities in managing the restoration and disposal of these properties. See Sections 3.1, 5.8 and Appendix C.

- Record of Decision (ROD)/Decision Document (DD) Approval - Garrison Commanders will approve installation RODs/DDs of $2 million or less. The National Guard Bureau (NGB) will approve their facilities' RODs/DDs of $10 million or less. The BRAC Field Offices (BRAC FO) will approve, for all non-BRAC excess properties, all RODs/DDs of $10 million or less. The US Army Environmental Center (USAEC) will approve all non-NGB active installation RODs/DDs between $2 million and $10 million. All RODs/DDs over $10 million will be submitted by the installation through the USAEC to Office of the Director Environmental Programs (ODEP) in the Office, Assistant Chief of Staff for Installation Management (ASCIM) for approval. See Section 6.1.4 and Appendix G.

- Environmental Restoration Information System (ERIS) Documentation - The ACSIM has established an Army policy that requires the storage of environmental restoration data in a centralized database. The ERIS was developed for this purpose and has replaced the outdated Installation Restoration Data Management Information System. All installations that have received ER,A funds to collect environmental restoration data must enter that data into the ERIS and must modify existing laboratory contracts to meet this requirement. See Section 6.2.3.

- Performance-Based Contracting (PBC) - The Army staff and USAEC are playing a key role in establishing a formalized PBC approach to cleanup at active Army installations. Focusing on results instead of the cleanup process, PBC allows the Army to buy environmental cleanups for a fixed price and at a set schedule and will allow the Army to reduce out-year long-term management (LTM) and O&M costs. Private remediation firms have the flexibility to conduct environmental cleanups in a manner that is cost effective for their company while ensuring that legal requirements are met and required milestones are achieved. The Army maintains oversight of the cleanup and determines, in consultation with the regulators, the desired outcome. . See Section 6.5.4

- Land Use Controls (LUCs) – LUCs will be documented in RODs/DDs, stating only broad objectives, not specific installation implementation actions. Installations will state the LUC, its remedial action objective(s), and any critical LUC commitments. Implementation details will be documented in the Remedial Design (RD) Phase. LUCs will be a component of the remedy for munitions responses at MRS MMRP category sites. See Section 6.11.

- Five-Year Reviews – The USAEC will set the installations' five-year review schedule for the next FY. The US Army Corps of Engineers (USACE) Hazardous, Toxic and Radiological Waste (HTRW) Center of Expertise will execute all Comprehensive Environmental Response Compensation and Liability Act (CERCLA) five-year reviews at National Priorities List (NPL) and non-NPL installations being funded by ER,A; the only exception will be at those installations that have instituted a performance-based contract. For any residual explosive or environmental hazards that do not allow for unrestricted use, the Garrison Commander must ensure that the response remains protective of human health and the environment. Installation must obtain USAEC concurrence prior to submitting reviews to regulators. See Section 6.12.

Chapter 1
Purpose and Applicability

This Army DERP Management Guidance for active installations provides guidance on the management and execution of the Army IRP, the MMRP, and the Building Demolition and Debris Removal (BD/DR) Program categories as related to environmental cleanup for active installations and non-BRAC excess properties. Supplementing the roles, responsibilities, and procedures contained in Army Regulation 200-1 (AR 200-1) and the accompanying Department of the Army Pamphlet 200-1 (DA PAM 200-1), guidance is provided to implement the Army's DERP in accordance with the *DoD Management Guidance for the Defense Environmental Restoration Program*. The Army DERP at active installations applies to environmental restoration activities conducted on installations owned by, leased by, or otherwise "possessed by the Army" that are located in the United States, its territories and possessions, and the District of Columbia including Army National Guard and Army Reserve installations.

This guidance is not applicable to Army restoration activities overseas, the BRAC Environmental Restoration Program (ERP), the Compliance-Related Cleanup Program or the Formerly Used Defense Sites (FUDS) Restoration Program but is applicable to those installations that will be cleaned up by the ACSIM BRAC Division under the Excess Property Disposal Program using ER,A funds.

Chapter 2
Background

The DERP was formally established by Congress in 1984, and is codified at Title 10 United States Code (USC) §§2701 – 2707 and §2810. The program provides for the cleanup of DoD hazardous waste sites consistent with the provisions of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA); the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR §300); and Executive Order (EO) 12580, Superfund Implementation.

SARA §211 authorizes the Secretary of Defense to carry out the DERP. The Army, Navy, Air Force, and Defense Agencies program, budget and manage individual transfer accounts. The Office of the Deputy Under Secretary of Defense for Installations and Environment (ODUSD (I&E)) establishes program goals and provides program management oversight. The Army transfer account is known as Environmental Restoration, Army (ER,A). The ODUSD(I&E) establishes the DERP goals for the Army DERP in the Financial Management Regulation (FMR) (previously the Defense Planning Guidance (DPG) goals). Implementation guidance and procedures to achieve the FMR goals are provided in the DoD Management Guidance for the DERP. See Section 4.5.2.

The National Defense Authorization Act (NDAA) for FY02 (Public Law 107-107) amended the DERP by establishing a new program element for the cleanup of property known or suspected to contain UXO, DMM or MC. It requires the Army to develop and maintain an inventory of Defense Sites (referred to as munitions response sites or MRS) that are known or suspected UXO, DMM or MC at other than on operational ranges, operating manufacturing or storage facilities, and permitted demilitarization facilities).

2.1 Army Defense Environmental Restoration Program (DERP)

The DoD Management Guidance for the Defense Environmental Restoration Program addresses three umbrella environmental restoration areas:

- Active installations.
- BRAC.

- FUDS, which are defined as real property that was under the jurisdiction of the Secretary and owned by, leased by, or otherwise possessed by the United States (including governmental entities that are the legal predecessors of DoD or its Components) and those real properties where accountability rested with DoD but where the activities at the property were conducted by contractors (i.e. government-owned, contractor-operated [GOCO] properties) that were transferred from DoD control prior to 17 October 1986. The Army is DoD's Executive Agent for this program. USACE executes this program is executed for the Army.

This guidance only applies to the active installations of the Army, including the non-BRAC excess installations.

Each of these restoration programs has three program categories. These program categories are:

- IRP. The IRP category refers to environmental responses (e.g, investigation, cleanup) to hazardous substances, pollutants, contaminants, and POL. See Section 2.2.

- MMRP. The MMRP category refers to refers to munitions responses to UXO, DMM or MC. The MMRP integrates, to the extent practical, explosives safety and environmental requirements to protect public safety, human health, and the environment. See Section 2.3.

- BD/DR. The BD/DR program category refers to the demolition and removal of unsafe buildings and structures at facilities or sites. See Section 2.4.

Because the Army had previously conducted responses on sites known or suspected to contain UXO, DMM or MC, munitions response actions can occur under the IRP category or MMRP category.

2.2 INSTALLATION RESTORATION PROGRAM (IRP) CATEGORY

Within the Army DERP, IRP category responses focus on identifying, investigating, and cleaning up Army lands contaminated before October 17, 1986 to eliminate unacceptable risks to human health and the environment. The 1986 date to qualify as an IRP response is a new requirement for Army installations, in accordance with the *DoD Management Guidance for the Defense Environmental Restoration Program*, and must be strictly adhered to throughout the Program. Installations may perform only those studies necessary to ascertain the need for

remedial action, identify the preferred remedial alternative, and implement the selected remedial action.

IRP category responses are conducted consistent with CERCLA, as amended by the SARA, using the process described in the NCP, 40 CFR Part 300, and, if applicable, consistent with the substantive requirements of the Resource Conservation and Recovery Act (RCRA) corrective action process. Identification, investigation, and cleanup of Solid Waste Management Units (SWMUs) under the RCRA corrective action process may be eligible for environmental restoration program funds if contamination at the SWMU occurred prior to 1986 and the SWMU was inactive or closed prior to being subjected to RCRA requirements. The IRP also complies with state, regional, and local requirements that have been identified as Applicable or Relevant and Appropriate Requirements (ARARs) in the CERCLA ROD or DD.

The IRP addresses releases to the environment that occurred prior to October 17, 1986 of the following:

- Hazardous substances or pollutants and contaminants as defined in CERCLA.
- Petroleum, oil, or lubricants (POL), as required by law.
- DoD-unique materials.
- Hazardous wastes or hazardous waste constituents.
- Low-level radioactive materials or low-level radioactive wastes.

At IRP category sites where the release to the environment did not occur prior to October 1986, work may continue on those sites already in the AEDB-R.

Under the IRP category, the Army may conduct munitions responses when:

- The release occurred prior to 30 September 2000, and
- The release is at a site that is not an operational range, an active munitions demilitarization facility, an active waste military munitions (WMM) treatment or disposal unit or a FUDS, and
- The site's costs for UXO, DMM or MC were identified and included in the DSERTS (now AEDB-R) prior to 30 September 2002, and was not classified as "Response Complete (RC)" in the DSERTS.

2.3 MILITARY MUNITIONS RESPONSE PROGRAM (MMRP) CATEGORY

The MMRP category includes munitions responses to address UXO, DMM and/or MC at sites other than on operational ranges.

See Appendix F for a more detailed listing of MMRP terms.

Under the MMRP category, the Army may conduct munitions response activities when:

- The release occurred prior to 30 September 2002; and
- The release is at a site that is not a FUDS, an operational range, an active munitions demilitarization facility, or an active WMM treatment or disposal unit that operated after 30 September 2002; and
- The site's MMRP costs were not identified or included in AEDB-R prior to 30 September 2000.

Funds appropriated for activities to address UXO, DMM, or MC cannot be used for:

- Locations outside of the United States.
- The presence of military munitions resulting from combat operations.
- Operational ranges (previously defined as active or inactive ranges).
- A facility that is used for or was permitted for the treatment or disposal of military munitions.

The Army was required to initiate an inventory of defense sites (referred to as MRS) with UXO, DMM or MC by 31 May 2003, and update the inventory annually until complete. The data collected during this inventory on defense sites provides the MRS that will be addressed as MMRP category sites. Specific requirements for munitions response actions and site-level CTC will be developed in AEDB-R. The USAEC is responsible for the initial input of MMRP category sites into AEDB-R.

2.4 BUILDING DEMOLITION AND DEBRIS REMOVAL PROGRAM (BD/DR) CATEGORY

The BD/DR program category is defined as "the demolition and removal of unsafe buildings and structures at facilities or sites that are or were owned by, leased to, or otherwise possessed by the United States and under the jurisdiction of the Secretary of Defense. The Army does not provide funding for BD/DR under the DERP unless the unsafe building or structure has remained unused since October 17, 1986 and is an integral part of activities during IRP or MMRP category responses. Use of ER,A funding for BD/DR requires extensive preliminary coordination and must be authorized by the Deputy Under Secretary of Defense, Installations and Environment (DUSD (I&E)). (Note: Buildings used in the production, demilitarization and/or other munitions-related operations may be contaminated with concentrations of MC that present a potential explosive hazard. The demolition of such buildings requires assessment of the risks and review by the explosive safety community.)

See Appendix D for examples of restoration activities eligible for funds under the Army DERP, and Appendix E for details on general eligibility under the Army DERP

Chapter 3
Roles and Responsibilities

AR 200-1 describes roles and responsibilities for the Army DERP of various organizations within the chain-of-command. The following activities have roles that are different from those described in AR 200-1, primarily necessitated by the Transformation of Installation Management (TIM) reorganization.

3.1 HEADQUARTERS, DEPARTMENT OF THE ARMY

The Installation Management Agency (IMA), as a Field Operating Agency (FOA) under the ACSIM, oversees all US Army-wide installation management. The HQ IMA monitors installation cleanup programs. The IMA Regions monitor the installation cleanup program within the region and coordinate with installations and ACSIM on issues of regional, regulatory, and public concern.

The Major Army Commands (MACOMs) with special installations monitor their installation restoration program. These MACOMs coordinate with installations and ACSIM on issues of regulatory and public concern.

The BRAC Division and its Field Offices (FOs) support the ACSIM in managing non-BRAC excess properties. Although the DERP for these properties is funded by ER,A, the BRAC Division manages the restoration and disposal of these properties.

The USAEC is a FOA supporting the ODEP and the BRAC Division in managing Army environmental programs. The USAEC is the program manager for the Army DERP for active installations and non-BRAC excess properties. The USAEC develops the active installation DERP budget, compiles obligation plans and tracks obligation of funds, reports on progress through ODEP and ACSIM to the Deputy Assistant Secretary of the Army for Environment, Safety and Occupational Health (DASA (ESOH) for input to the ODUSD (I&E) In-Progress Reviews (IPRs), develops Army-wide guidance, and coordinates program activities and requirements with IMA. The USAEC also oversees the execution of the DERP at active installations. The USAEC has assigned individuals as Environmental Restoration Managers (ERMs) who serve as the technical environmental link between installation or garrison environmental offices and HQDA. The ERMs are responsible for direction and management of the Army DERP for assigned installations. The ERM assists the installation with the prioritization of Army DERP requirements, monitors project execution for obligation and reporting, and provides technical and financial guidance to assigned installations. The

USAEC has assigned Program Coordinators (PCs) to work with the installations and ERMs on reporting requirements such as AEDB-R, obligation plans, and quarterly progress reports.

The United States Army Technical Center for Explosives Safety (USATCES), acting for the Army Safety Office, develops Army policies, procedures, and regulations to ensure compliance with the DoD Explosives Safety Standards (DoDD 6055.9-STD). USATCES recommends explosives safety policy for the management and cleanup of real property known or suspected to contain MEC; provides technical assistance and advise on matters related to munition responses and explosives safety to Garrison Commanders and others; reviews and provides Army approval for explosive safety submissions, chemical safety submissions, and/or explosive or chemical warfare material site plans submitted to the Department of Defense Explosives Safety Board for approval. USATCES also reviews the explosives safety provisions (e.g., land use controls or explosive safety-related notices) of transfer documents (e.g., leases, deeds, findings of suitability for transfer) for property known or suspected to contain MEC or residual explosive hazards that, per DoDD 6055.9-STD, must be submitted to the DDESB for review and approval prior to the transfer.

3.2 U.S. ARMY INSTALLATIONS

The Garrison Commander, or other designated authority when there is no Garrison Commander, is responsible for executing the installation's environmental programs. The Garrison Commander is responsible for tasking the installation's DERP Executors, reporting to their USAEC ERM, coordinating regulatory and community involvement, and for ensuring compliance with DoD policies, to include explosive safety policies, and applicable federal and sates laws and regulations.

The Remedial Project Manager (RPM) is the installation coordinator of the numerous restoration activities among the Army, the U.S.Environmental Protection Agency (USEPA), state agencies, and the local community. The RPM position is assigned by the Garrison Commander and has overall responsibility for the DERP at the installation.

The DERP Executor conducts remedial responses (identification, investigation, and cleanup of contamination) at active installations at the direction of the RPM. Army installations may execute projects and the USACE and the US Army Center for Health Promotion and Preventive Medicine (USACHPPM) may execute specific projects for the DERP.

3.3 REGULATORY AGENCIES

State regulatory agencies are involved in the DERP at Army installations. Points of contact at state regulatory agencies are established for each installation.

CERCLA requires that cleanup documents be coordinated with State regulators and appropriate federal agencies, such as those entities serving as Natural Resource Trustees. Installations provide state regulatory agencies access to program information (with due consideration of issues related to accuracy, national security, and other established forms of confidentiality or privilege), including draft data and documents approved by the USAEC ERM.

In addition to state regulators, the USEPA is involved in the Army DERP at installations on the USEPA's National Priorities List (NPL). The Army, the EPA, and the state regulators work together to develop cleanup schedules, sampling and analysis plans, and the appropriate decision documents for both removal actions and remedial actions at NPL sites. Cleanup terms, document delivery and cleanup schedules are memorialized in Federal Facility Agreements (FFAs). See Section 6.7 for additional information concerning regulatory agencies.

3.4 OTHER STAKEHOLDERS

Other stakeholders, such as members of the local communities or Native American tribes or governing bodies also provide input to the Army DERP. In addition, federally recognized tribes may serve as Natural Resource Trustees. See Section 6.8.

Chapter 4
Program Development and Management

The Army plans, programs, and budgets to implement remedial response actions at installations that remediate contamination in accordance with the goals set forth in the DoD FMR, the procedures in the OSD Management Guidance for the DERP, the policies in AR 200-1, and guidance in DA Pam 200-1.

4.1 Program Goals and Objectives

The DoD developed cleanup goals and objectives for the IRP category at active installations and presented the goals and objectives in the FMR. Program goals are being developed for the MMRP category so as not to impact existing Defense goals for the IRP. The DoD evaluates the Army environmental program based on compliance and consistency with FMR guidance at semi-annual IPRs.

The FMR directs that the Army reduce risk to protect human health and the environment and comply with legally enforceable agreements, orders, and laws through implementation of cost-effective response actions. The current FMR establishes the following environmental restoration goals for installations:

- As installations enter into new (or adjust existing) regulatory agreements, the concept of flexible schedules and flexible sequencing of work should be included (i.e., avoid milestones based on specific dates).
- Sequencing of work should reflect the results of Relative Risk Site Evaluations (RRSEs).
- Restoration activities should support associated requirements of the Agency for Toxic Substances and Disease Registry (ATSDR) and Defense State Memoranda of Agreements (DSMOA).

In addition, the Army has identified program goals in its Army Cleanup Strategy and corresponding Strategic Plan. These additional goals and metrics (see Appendix H) provide direction to implement a cost efficient program.

4.2 Program Implementation

To ensure consistency in the manner in which the Army's DERP is implemented to meet the Defense goals, several databases, documents, and reports play key roles in the process. The Installation Action Plan (IAP), the AEDB-R, the RRSE (Risk Assessment Code (RAC) for MMRP), and the CTC are all inter-related; require input from one another; and, in turn, provide output to each other. Each

must be internally coordinated to ensure overall consistency within the Army's DERP.

4.2.1 Installation Action Plan (IAP)

The key document in the management and execution of the DERP is the IAP. The IAP outlines the total multi-year integrated, coordinated approach to achieving an installation's DERP goals. The plan is used by the USAEC, NGB, major Army command (MACOM), IMA and installations to monitor requirements, schedules, and budgets. For each site within the AEDB-R, the IAP documents DERP requirements, the rationale for the technical approach, and corresponding financial requirements. Prior year funding and cost estimates through the entire remedial processes are included. Estimates of cost must be fully supportable, either using the RACER estimating model or an engineer estimate generated by an industry-wide accepted model. (See Section 4.2.5) The IAP contains the DERP history, current AEDB-R status, contaminants of concern, response actions taken, past milestones, and any possible future response actions.

Each installation receiving ER,A funds is required to prepare an IAP annually. In the case of the NGB, the NGB acts as the installation and is responsible for preparing the IAP. Installations update and submit their IAPs annually to the USAEC. For those installations where USAEC conducts an IAP workshop, the installation will submit the completed and signed IAP to USAEC within 90 days after completion of the workshop. For those installations having no IAP workshop, the IAP will be updated and submitted to USAEC by 30 May of each fiscal year. Signatures are only required for the purpose of approving and transmitting the official annual IAP that resulted from the IAP workshop or annual update by the installation. Even though an installation is required to officially submit an approved IAP annually, the installation should update the plan whenever a change to the program occurs.

Installations should involve federal, state, local regulators, tribal governments, and community members of an installation's Restoration Advisory Board (RAB) when developing and updating the IAP so they may participate in the planning process.

The DoD recommends that environmental management plans for DERP, such as IAPs, be made available to environmental regulators and the public. The Army also encourages using the IAP to brief the planned restoration activities for the installation at RAB and TRC meetings, and public meetings. However, all IAPs must have the constrained and unconstrained site-level CTC removed prior to distribution to the public or regulators or placement in the Administrative Record or information repository. Additionally, public affairs and security reviews of the public version IAP must be conducted prior to distribution.

The Army's MRS have been identified in its inventory of former ranges, "Closed, Transferred, and Transferring Range/Site Inventory Program." Installations must

share their Phase 3 Range & Site Inventory Reports with regulators and, as appropriate, with stakeholders. Installations should incorporate MRS information into their IAPs as their inventories are completed and final inventory reports are issued. Planning is documented through the IAP process, beginning with the IAP workshop where all interested parties are gathered together to discuss the installation cleanup program. Attendees at the workshop review each site and determine the best course of action to complete the cleanup.

The USAEC will conduct annual IAP workshops for installations with significant cleanup programs. The IAP workshops assist in IAP preparation and ensure consistency with Army program guidance. The IAP reviews the program's efforts to achieve cost-effective and expeditious completion of the cleanup effort. The workshops also serve as a forum to obtain significant stakeholder input in the planning process. In addition, the resulting IAP can be the basis for state support under the DSMOA program. The workshops are typically one to three days in duration.

The USAEC will examine descriptions and plans of action for each AEDB-R site requiring ER,A funding for technical soundness and internal consistency. The associated cost estimates, broken out both by year and by program phase will also be reviewed representing a key step in the process of building a coherent and prioritized program from a compilation of individual projects. In general, IAP Workshops serve as an important tool to assist in information exchange throughout the Army DERP. Furthermore, IAP Workshops provide a useful opportunity for installation teams to consider their cleanup programs on an integrated level.

The USAEC will provide a meeting facilitator, and the necessary administrative support to produce a draft IAP at the meeting. Installations should be able to explain their technical requirements (as well as the basis for estimated costs), and take the necessary steps to ensure attendance by other stakeholders.

Additional IAP guidance is available on the Internet at:

http://www.denix.osd.mil/denix/Public/Policy/Army/IRP/iap99f.html

4.2.2 Army Environmental Database-Restoration (AEDB-R)

The AEDB-R, formerly known as the DSERTS and the RCTCS, is a database of installations and cleanup sites, to include MRS, for which the installation is responsible that are currently in the Army DERP. The AEDB-R provides an automated Internet-based application to manage, track, and query data on activities conducted under the Army DERP. The AEDB-R data are used to meet upward reporting requirements and are a source of information for the following:

- The DERP Annual Report to Congress.

- Army's Environmental Restoration Financial Liability Statement.
- Program Objective Memorandum (POM).
- President's Budget.
- Site-level CTC.
- Relative Risk Site Evaluations (RRSEs) or Risk Assessment Codes (RACs).
- DERP Obligation Plans.
- DoD In-Progress Reviews (IPRs/Measures-of-Merit (MOMs)).
- ACSIM DERP Reviews.
- IAPs.

Installation personnel must maintain a current list of all sites at the installation in AEDB-R that have "Completed," "Underway," or "Future" restoration activities. Site-level data must include Site Name/Description, Site Type, Regulatory Statute, and Phase/Cleanup Action status.

Installations must report key program status elements in AEDB-R, such as information on RODs/DDs, Federal Facilities Agreements (FFAs), RRSE/RAC evaluations, and Restoration Advisory Boards (RABs). Installations will also report on Five-Year Reviews and LUCs through AEDB-R. Installations must ensure data for each site is current and must correct any identified data gaps and inconsistencies.

Installations will submit AEDB-R input to the USAEC in accordance with the semi-annual AEDB-R data call memorandum published by USAEC. The USAEC ERMs (and NGB for NGB installations) will provide quality assurance on the AEDB-R data submitted by installations. Non-BRAC excess properties must coordinate their data with the appropriate BRAC FO prior to submission to USAEC.

The USAEC provides AEDB-R access, user manuals, Army guidance, and training to installation, BRAC FO, BRAC D, ODEP and other personnel as required by new versions and policy/guidance updates. The USAEC also provides on-site assistance as requested by the installations.

The USAEC reviews all data submissions for completeness and consistency with the AEDB-R data call memorandum. Any necessary revisions are coordinated with the installation. The USAEC consolidates data files into an Army file for submittal to ODUSD (I&E).

For MMRP data, the USAEC ensured the transition of MRS data from the Army Range Inventory Database (ARID) to AEDB-R. MMRP category sites require the same biannual updating as IRP category sites. If MMRP eligible MRS are found after the inventory is complete, they will be entered into AEDB-R during the semi-annual updates. The MRS identified during the inventory were assigned a RAC score, which satisfied criteria to be entered into AEDB-R. Until the MMRP is more mature, the USAEC will continue to centrally update AEDB-R on the web and coordinate the data with the installations and the assigned USAEC ERM.

For additional information on the AEDB-R, visit the USAEC website at:

http://aec.army.mil/

The AEDB-R may be accessed at https://aerp.apgea.army.mil/ Contact the USAEC Help Desk for user account requests

The Help Desk can be reached at 410-436-1244 or DSN 584-1244 or by e-mail at usaechelpdesk@aec.apgea.army.mil

4.2.3 Relative Risk Site Evaluation (RRSE)

The DoD has established risk reduction as a major program goal for the DERP and has implemented a strategy to ensure that high-risk sites receive priority for cleanup. The RRSE is the foundation of that strategy for IRP category sites. The AEDB-R sites are categorized into relative risk groups based on an evaluation of contaminant concentrations, migration pathways, and human and ecological receptors in groundwater, surface water, sediment, and surface soils. Evaluations of these factors at a site are combined to place the site in an overall category of "high," "medium," or "low" relative risk. The RRSE should not be used to:

- Select a remedy.
- Determine whether or not response actions should be taken.
- Substitute for a baseline risk assessment or health assessment, which identifies risks, or the health assessment, which identifies the potential health effects on the community, associated with the site.
- Determine whether a site should be classified as Response Complete (RC) or No Further Action (NFA).
- Avoid meeting legal requirements.

A RRSE is required for all AEDB-R IRP category sites with ongoing cleanup activities and should be performed with available site data. Using the RRSE module in AEDB-R, installations must evaluate available data for each AEDB-R cleanup

site. Although previously calculated RRSE data is maintained, a new RRSE calculation is not required and should not be performed at sites:

- Classified as having all (Remedy-In-Place) RIP, even though the sites may be in Remedial Actions (Operations) RA(O) or LTM.
- Classified as RC.
- Having only BD/DR requirements.

Installations can add sites to the AEDB-R without information to conduct a RRSE as pending sites, but they cannot be approved until the RRSE is completed and reviewed. Sites with chemical agent contamination that cannot be safely sampled can be added to AEDB-R as "Not Evaluated." An installation must use Operations and Maintenance (O&M) funds to obtain the data to develop the initial RRSEs.

Installations must solicit stakeholder involvement throughout the RRSE process. The IAPs, together with the RRSE, can serve as the basis for dialogue with regulators and, when appropriate tribal governmental representatives) and stakeholders (e.g., community members of an installation's Restoration Advisory Board (RAB) on sequencing work at sites.

Installations will review and update their RRSE data semi-annually during the Spring and Fall AEDB-R data calls. The RRSE data are provided to the ODUSD (I&E) at mid-year and at the end of the FY. The DoD uses relative risk data to measure progress, show risk reduction and potentially adjust program goals at the semi-annual DoDIn-Progress Reviews (IPRs). The DoD Relative Risk Working Group developed a quality assurance program for RRSE data. After AEDB-R data are provided to the ODUSD (I&E), the DoD returns questionable RRSE data for explanation or possible corrective action. Installations must reevaluate the relative risk of sites for each AEDB-R data call, particularly for those sites where new data is available or where data is questionable.

For detailed guidance on the RRSE, see the 1997 DoD Relative Risk Site Evaluation Primer, available on the Internet at:

http://www.dtic.mil/envirodod

4.2.4 Risk Assessment Code (RAC)

Pending implementation of the Munitions Response Site Protocol (MRSP), the RAC has been adopted as an interim DoD-wide approach for providing a single, consistent tool for assigning to an MRS known or suspected to contain MEC a relative priority. The Army will offer regulators and public stakeholders opportu-

nities to participate in the RAC development process. Each MRS known or suspected to contain MEC, to include MRS where a response has been completed, shall be assigned a RAC score, as soon as possible. Until the RAC is assigned, MRS known or suspected to contain MEC will be classified as "not yet evaluated." The installation assign a RAC to a newly identified MRS that are known or suspected to contain MEC within 12 months of its identification.

Due to the inherent differences between long-term environmental risks and the immediate risks posed by explosives, the RAC is the framework for prioritizing the explosive safety hazards. It identifies the potential explosives safety hazards identified at a site by assessing the risk at sites known or suspected to contain MEC. Certain sites may have a RAC score to address potential explosive hazards and a RRSE addressing the relative risk posed by environmental contamination at the site.

Installations must review and update RAC data semi-annually during the Spring and Fall AEDB-R data calls. The RAC data are provided to the ODUSD (I&E) at mid-year and at the end of each FY. A RAC is required for all MMRP AEDB-R sites known or suspected to contain MEC and should be performed with available site data. Each MRS (including MRS where a munitions response has already been implemented) were assigned a RAC during the MMRP Preliminary Assessment phase (Army Range Inventory). Newly identified sites shall be evaluated and a RAC assigned within 12 months of identification. Until the RAC is assigned, the MRS will be classified as "not yet evaluated." The RAC should not be used to:

- Select a remedy.
- Determine whether or not response actions should be taken.
- Substitute for a baseline risk assessment, which identifies the risks, or the health assessment associated with the site health assessment, which identifies the potential health effects on the community, associated with the site.
- Determine whether a MRS should be classified as RC or NFA.
- Avoid meeting legal requirements.

Regulators and public stakeholders will be offered opportunities to participate in the RAC development process. The IAPs, together with the RAC, can serve as the basis for dialogue with stakeholders (local community, RABs, and regulator representatives) on sequencing work at sites.

4.2.5 Cost-to-Complete (CTC)

The CTC estimate for environmental restoration projects is an important planning tool in the budget process. The HQDA uses the CTC estimates to support the fi-

nancial liability statement, to support POM submissions, develop the annual President's budget, and to track cost avoidance measures implemented by Army installations.

Since 1990, several federal financial acts added new requirements for DoD to accurately report environmental liabilities. The purpose of these acts was to improve general and financial management practices in the federal government. Agencies are required to develop multi-year strategic plans, annual performance plans, and annual performance reports. In addition, federal agencies are required to produce annual auditable financial statements and accurate cost and performance information, as well as to integrate budget, accounting, and program data. In summary, these statutes require the DoD and the Army to develop auditable financial statements that report both assets and liabilities. A liability is defined as a probable and estimable future outflow of resources due to a past government transaction or event.

Liability disclosure includes having complete, formal, and auditable documentation of all data, models, and other information used to develop the estimate of the environmental restoration liability. The CTC estimates and the funding levels in the annual financial statements for environmental restoration must be consistent with each other. Further, these funding levels must be consistent in any reports provided to outside entities, such as in the DERP Annual Report to Congress.

The CTC estimates form the basis of the environmental liabilities reported in the Army's Annual Financial Statement in compliance with the Chief Financial Officers Act of 1990. In addition, CTC estimates must comply with DoD Financial Management Regulation (FMR) 7000.14-R, Volume 4, Chapter 14, Accrued Environmental Restoration (Cleanup) Liabilities (October 1999). This regulation requires documentation of data sources, methods of estimation and documentation of management review of CTC estimates. FMR 7000.14-R, Section 140105, stipulates that CTC estimates are subject to audit. Therefore, information used to develop CTC estimates for the environmental restoration programs is subject to audit by the US Army Audit Agency and the DoD Inspector General.

4.2.5.1 CTC Estimates

Installations shall prepare annual CTC estimates for each IRP category site in the AEDB-R with a status of "underway" or "future" and USAEC shall prepare the CTC estimates for each MMRP site in the AEDB-R. These estimates shall reflect the environmental restoration strategy and sequence as presented in the IAP for the site and any changes that occurred since the last CTC update.

Installations shall prepare a CTC estimate only when there is sufficient site-specific data to make a "probable" estimate without making unsubstantiated assumptions. If a site-specific CTC estimate is not prepared, installations shall document the rationale for not doing so, describe their plan of action and milestones for gathering sufficient site-specific information to develop an estimate,

and forward that information with the rest of the installation's CTC data. Installations shall ensure the reliability and completeness of the data used to calculate their CTC estimates. Installations are required to ensure that these data sets are complete, up-to-date, and documented in a manner that will withstand an audit.

The CTC estimates shall include, on a current cost basis (not adjusted for inflation), all anticipated costs required to effectively restore the site, as well as the costs of complying with applicable legal and regulatory requirements. This requires that CTC estimates:

- Be site-specific.
- Consider the reasonably anticipated future land use of the site.
- Be based on technologies that are currently available.
- Include the cost of completing all remaining studies, restoration, removal, or remedial action (including long-term operating of remedial systems).
- Include costs in the LTM phase, to include all five-year review costs, costs for management and monitoring of LUCs applied to sites where cleanup to an unrestricted use can not be attained, costs of decommissioning treatment systems and abandoning monitoring and extraction wells. Prior to completion of Remedial Action (RA) requirements, long-term CTC estimates shall be adjusted annually, through indexing, to maintain them on a current cost basis.
- Include costs associated with deletion from the NPL, where appropriate.

The CTC estimates shall document environmental restoration cost information, to include identifying:

- The source of requirements (e.g., applicable laws and regulations).
- Methods for assigning estimated total environmental restoration costs to current operating periods.
- Material changes in the total estimated costs of environmental restoration activities (e.g., due to changes in laws, technology, plans) and the portion of the change in estimate that relates to prior period operations. A material change is defined as evidence that a change of more than 10 percent of the prior year ending balance (up or down) will occur.
- The nature of estimates and the disclosure of information regarding possible changes due to inflation, deflation, technology, or applicable laws and regulations.

The CTC estimates should include all anticipated future costs, including LTM where necessary. In the event the number of years required for LTM is undetermined, as may be the case for certain classes of sites, such as landfills, the years should be based on past similar sites. CTC estimates should not exceed 30 years. In addition, CTC estimates should include all project management (e.g., USACE costs, owner costs) and contingency costs (e.g., risk) associated with the environmental restoration of the site. Legal, regulatory, and administrative costs associated with site closeout should also be included in CTC estimates.

The CTC estimates shall not include the costs of environmental compliance, pollution prevention, conservation activities, contamination or spills associated with current operations, or treaty obligations. The Army accounts for those as part of ongoing operations. Similarly, expenses associated with the operation, management, or sustaining operational ranges are not included as environmental restoration liabilities.

4.2.5.2 REMDIAL ACTION COST ENGINEERING AND REQUIREMENTS (RACER)

In FY02, the Army began using the RACER model to develop CTC estimates for sites without a Feasibility Study (FS). The RACER is a cost-estimating tool that estimates costs for all phases of remediation: Interim Actions/Interim Measures, studies (Preliminary Assessment/Site Investigation PA/SI, Remedial Investigations/Feasibility Studies (RI/FS), RCRA Facility Investigations/Corrective Measures Studies (RFI/CMS)), Remedial Design, RA (including operation and maintenance), and site work and utilities. The engineering solutions within RACER are based on data from government and industry, construction management agencies, technology contractors and vendors, and historical project information.

During the development of a ROD/DD, other auditable cost estimating models may be used based on site-specific data. If installations use another computerized model to calculate CTC estimates, they shall ensure that the computer model used for this purpose is verified, validated, and accredited per DoD Instruction (DoDI) 5000.61 - *DoD Modeling and Simulation Verification, Validation, and Accreditation (VV&A).* Some estimates cannot be developed using a computer model because some environmental restoration actions are truly site-specific and unique to a particular set of contaminants for which no computer model may exist. In these instances, estimates must, by necessity, be developed based on engineering studies or estimates. Estimates developed based on engineering studies or estimates, other methods, or computer models not validated per DoDI 5000.61 shall be fully documented. The information submitted to the USAEC for inclusion in the annual financial statement shall be annotated accordingly.

4.2.5.3 CTC Revisions

Installations shall update their IRP category site CTC data 30 days prior to their individual IAP workshops. If an installation does not have an IAP workshop scheduled within the FY, CTC updates must be completed by June of each year. The USAEC shall update an installation's MMRP site CTC data following the IAP workshop or by June of each year if there is no workshop.

The CTC estimates for a site shall be revised when there a "material change" occurs. Such a change must be fully documented by a signed memorandum maintained at the installation, and the IAP for the site must be revised to reflect this change. The revised estimate shall be forwarded to the USAEC, or the NGB for NGB installations, for incorporation into the Army-wide annual financial statements. In the event of a material change in the liability from year to year, the nature of the change must be disclosed. Reasons for such a change may include level-of-effort, inflation, delays in implementation, and new regulatory requirements.

For detailed guidance on CTC procedures see "Developing Cost-to-Complete Estimates & Financial Reporting of Environmental Restoration Liabilities for the US Army Environmental Restoration Program," January 2002.

4.2.5.4 CTC Audits

Environmental restoration estimates for both the CTC and environmental liability reporting in an annual financial statement are subject to audit. The financial management regulations emphasize that financial records, to include CTC estimates, must have audit trails to allow transactions to be traced from the point of initiation to the final report. A fundamental requirement of a good audit trail is that all transactions must be adequately supported with pertinent documents and source records. The source document shall include a narrative providing sufficient explanation for the basis of the estimate, the date prepared, the preparer's name, and supervisor's signature. Original estimates and changes in those estimates shall be documented and available for review. Documentation must exist at the time of an audit.

These requirements should be identified in the contract Statement (or Scope) of Work if the design or FS contractor must develop a cost estimate for the removal or remedial action. The contractor's cost estimation may be subject to audits, thus the contractor must be able to justify the process.

Installations shall include an evaluation of environmental liability disclosure practices as a part of any installation-specific environmental self-auditing programs, such as the Army's Environmental Performance Assessment System (EPAS) formerly known as Environmental Compliance Assessment System (ECAS).

The ACSIM has directed that the USAEC will institute field audits to verify supporting documentation to the requirements identified for CTC. The USAEC will conduct CTC reviews at selected Army DERP sites. The following protocol will be used to determine sites selected for review:

- Sites with deficiencies identified during previous audits.
- Sites with remedial action costs greater than $5 million scheduled for execution in the current or next FY.
- Sites where cleanup versus study phase estimates are disproportionate (e.g., large study cost with small cleanup costs, design costs with no associated cleanup costs, design costs greater that 40 percent of the associated cleanup costs).
- Sites where there is a material change in the financial liability.

4.2.5.5 CTC Training

The Army has developed a formal training program to certify installation staff in the preparation of CTC estimates, to include estimates for munitions responses. Installations must schedule formal training programs (e.g., introductory training, recurring "refresher" training) for staff personnel engaged in the development of CTC estimates or preparation of environmental restoration liability reports. Documentation that staff received this training shall be maintained as a part of the audit trail for the annual financial statement.

4.3 BUDGETING

Budgets are determined based on several factors. The Defense goals and the following are taken into consideration:

- Program initiatives.
- Statutory and legal requirements, including agreements with regulatory agencies.
- The ability to execute cleanup projects in a given year and the feasibility of carrying out the activity in relation to other activities at the installation.
- Cultural, social, and economic factors, including environmental justice considerations.
- Short-term and long-term ecological effects and environmental impacts in general, including injury to natural resources and lost use.

- Acceptability of the action to regulators, Native American tribes, and public stakeholders.
- Availability of new and innovative technologies that are appropriate for use given site conditions.
- Actual and anticipated funding availability.

Budgets are determined by USAEC and provided to the installations for use during the IAP Workshop and subsequent AEDB-R data entry.

The USAEC consolidates the programmed requirements and utilizes this information for financial reporting such as the Financial Liabilities Statement, the President's Budget, the DERP Annual Report to Congress, the Program Objective Memorandum (POM) and the Budget Estimate Submission (BES).

The USAEC develops the Army DERP budget by consolidating installation requirements as programmed in the AEDB-R database, Fall submission. As DERP activities progress to meet program goals, the budgets are adjusted based on the updated CTC database.

4.4 FUNDING ARMY DERP ACTIVITIES

Early in the FY, installations will enter their funding requests into the ER,A Funding Request system. This system was developed as a means to provide an automated process for preparing, submitting and approving funding requests by those users who can access the World Wide Web (www). Specifically, the system enhances the data collection, analysis, reporting and information sharing of Army environmental data.

The ER,A Funding Request System includes three users roles: the installation role, the oversight role (USAEC program coordinators), and the executive role (USAEC). The installation role provides the data entry and routes the request up to the oversight for approval. The oversight role reviews the funding request and either routes the approval up to the executive or routes the rejection back down to the Installation. The executive role reviews the funding request and either routes the approval up or routes the rejection back down to the oversight level.

Access to the ER,A Funding Request system is restricted. Users will only see the funding requests that they have either created, been granted access to, or that have been routed to them.

The ER,A Funding request system may be accessed at https://aerp.apgea.army.mil/ Contact the USAEC Help Desk for user account requests

The Help Desk can be reached at 410-436-1244 or DSN 584-1244 or by e-mail at usaechelpdesk@aec.apgea.army.mil

4.4.1 Priority Setting and Sequencing

The Army employs a risk management approach in the DERP that protects human health and the environment through focusing on actions to reduce risks in the short-term and then focusing on longer-term risk management actions. Installations must effectively communicate to stakeholders the Army's use of risk management in the sequencing, planning, and implementation of environmental restoration activities.

Prioritization and sequencing of environmental restoration activities will be accomplished using the frameworks described in the DoD RRSE Primer and the RAC as described in Appendix H, other risk information, and other management factors. In prioritizing and sequencing environmental restoration activities for funding, some considerations that may have an impact include:

- The relative-risk posed among sites. Generally sites that present a greater relative-risk to human health, safety, or the environment will be addressed before sites that present a lesser risk.
- The findings of health, safety, or ecological risk assessments or evaluations based on site-specific data.
- The reasonably anticipated future land use, especially when planning response actions, conducting evaluations of response alternatives, or establishing specific response action objectives.
- Implementation and execution considerations (e.g., the availability of the necessary systems to implement a particular action; examination of alternatives to responses that entail significant capital investments, a lengthy period of operation, or costly maintenance; considering alternatives to removal or treatment of contamination when existing technology cannot achieve established standards (Maximum Contaminant Levels, etc).
- For munitions responses, the limitations and capabilities of available technology.
- Economic considerations, including economies of scale, evaluation of total life cycle costs, and estimated valuations of long-term liabilities.
- Implementing standing commitments including those in formal agreements with regulatory agencies, requirements for continuation of remedial action operations until response objectives are met, other long-term management activities, and program administration.

- Established program goals and initiatives.
- Concerns expressed by regulators and public stakeholders.
- Cultural, social and economic factors, including environmental justice considerations.
- Short-term and long-term ecological effects and environmental impacts in general, including injuries to natural resources.
- Opportunities to buy out entire installations/states.

For additional guidance on prioritization and sequencing of environmental restoration activities, see the DoD Relative Risk Site Evaluation Primer, on the Internet at http://www.dtic.mil/envirodod

4.4.2 Funding for New Sites

ER,A funds may only be used for sites in AEDB-R. A site may be added to AEDB-R once the ER,A eligibility is determined, the PA/SI is completed and the RRSE category or RAC has been determined.

4.4.3 MILITARY CONSTRUCTION (MILCON)

The FY03 Defense Authorization Act revised 10 USC 2707 to specify that environmental restoration projects are not military construction and that such projects should be funded from appropriations for environmental restoration (ER,A for Army). This rescinds the current DoD Management Guidance for the DERP that requires the use of MILCON funding for environmental restoration response activities resulting in the construction of a real property facility.

4.4.4 Cost Recovery and Cost Sharing

As a matter of policy, the Army will pursue recovery of response costs of $50,000 or more from either contractors or other entities that are responsible or partly responsible for environmental damage on Army installations. The terms, “cost recovery” and “cost sharing” are defined as:

- Cost recovery involves money received from private parties to compensate the Army for installation costs in completed environmental restoration activities for which the private party bears some responsibility. Cost recovery amounts involving completed environmental restoration activities are available for redeposit to the ER,A account for use on other Army DERP projects.

- Cost sharing involves amounts contributed by a private party to the Army to compensate the Army for environmental restoration activities being planned or currently being conducted by the installation for which the private party bears responsibility. Cost sharing amounts are available for Army use in its performance of environmental restoration activities at the installation.

The Army is authorized to credit its ER,A account with funding recovered pursuant to CERCLA for response costs at Army DERP sites attributable to other non-DoD potentially responsible parties (PRPs) or to the negligence of DoD contractors. The Army may also credit any other funds recovered from a contractor, insurer, surety, or other person to reimburse DoD or the Army for any expenditure for DERP activities.

The Army is establishing processes to identify CERCLA PRPs and to pursue them to either take responsibility for environmental restoration or to contribute to the cost of response actions, on a total cost recovery or contribution basis, as appropriate. The identification of potential PRPs should occur as early as possible in the environmental restoration process. The Environmental Law Division (ELD), Office of the Judge Advocate General (OTJAG), is responsible for coordinating with the Department of Justice (DOJ) to pursue claims against such parties. ELD Litigation Branch typically requests the local counsel to prepare a litigation report regarding the proposed claims. When cost recovery or contribution claims appear to be possible, the Army will, in coordination with DOJ, retain records, documents, and maintain all costs and project documentation necessary to support cost recovery claims against the PRPs.

Seeking to have a PRP, either take responsibility for environmental restoration or contribute to the cost of response actions, on a total cost recovery or contribution basis, is preferred over expending ER,A funds to pay for response costs that are the liability and responsibility of other PRPs.

In coordination with the garrison legal staff and through the Office of the Judge Advocate General (OTJAG), installations shall pursue recovery of response costs of $50,000 or more whenever an IRP action on Army property is required because of legal requirements or an imminent and substantial threat to human health or the environment, and the cooperation of the other PRP could not be negotiated in advance of the work performance. Installations will report to the USAEC, who will inform ODUSD (I&E) of all attempts to recover response costs. Installations will report the following information, which will be included in the DERP Annual Report to Congress:

- Installation name.
- City (or county if appropriate) and state where the installation is located.

- Status of cost recovery actions (i.e., “Underway," “Complete," “Not Feasible," “No Cost to be Recovered”). Actions that are inactive in a given FY but are continuing shall be categorized as “Underway."

- Investigate status of recovery actions deemed sufficient to pursue (i.e., an action that will not benefit the government would be considered insufficient to pursue”).

- Cost recovery reported in a previous annual report that has since been determined not to benefit the government. The installation shall report the status as “Not Feasible” or “No Cost to be Recovered” and provide a brief but complete explanation for the decision.

- Total amount recovered or shared with another PRP or amount recovered from a negligent DoD contractor, as of the end of the reported FY.

- Where recovery actions are under way and some costs have been recovered, the total amount recovered as of the end of the reported FY. (If recovery actions are underway and no costs have been recovered as of the end of the reported FY, installations shall report that the amount is $0. Installations shall not report estimated future costs).

- Total costs spent in legal and management costs to pursue recovery, as of the end of the reported FY.

- Where recovery actions are underway or complete, the cost to pursue the action as of the end of the reported FY.

- Where the cost to pursue the action has not been determined but will be determined later, “TBD."

- Where the cost to pursue is unknown and is not determinable, “Amount Unknown."

If, after coordination with and the concurrence of the USAEC and ELD, an installation decides that it is not in the best interest of the government to pursue such a recovery, the installation will inform the USAEC and ODUSD (I&E) of its rationale.

4.5 EXECUTION STRATEGY

The DoD and the Army have established obligation, disbursement, and defense goals for the Army DERP that must be met during program execution.

4.5.1 Obligation Goals

The DoD goal for obligation of funds is 28 percent by first quarter, 55 percent by second quarter, 80 percent by third quarter, and 100 percent by fourth quarter of each FY.

4.5.2 Disbursement Goals

To ensure that all ER,A funds are disbursed in a timely fashion, the following goals have been established by DoD for ER,A funds:

YEAR OF OBLIGATION		CUMULATIVE DISBURSEMENT OF FUNDS
Initial year	22%	22%
Second Year	45%	67%
Third year	22%	89%
Fourth year	6%	95%
Fifth year	5%	100%

4.5.3 Defense Goals

The Army must meet the goals of the FMR. The FMR requires that IRP restoration activities have remedial systems in place to:

- Reduce relative risk at 100 percent of the identified high relative risk sites by the end of FY07 (or within three years for any newly identified high relative risk sites).
- Reduce relative risk at 100 percent of the identified medium relative risk sites by the end of FY11.
- Reduce relative risk at 100 percent of the identified low relative risk sites by the end of FY14.

The DoD has established metrics for the MMRP to complete Preliminary Assessments by FY2007 and complete Site Inspections by FY2010. The Army considers the final inventory report to be equivalent to the PA, so the Army successfully met the PA metric in FY2004

The most recent information on Defense Goals is available in the Internet at:
http://www.dod.mil/comptroller/fmr/02b/Chapter13.pdf

4.6 PERFORMANCE MEASURES

DoD and the Army establish various Performance Measures for the DERP that must be met during program execution.

4.6.1 Measures of Merit (MOMs)

The MOMs are the tools used by the Army and ODUSD (I&E) to measure the Army's progress toward goals set forth in the FMR. The Army currently reports three MOMs for the IRP to ODUSD (I&E) semi-annually at the IPR:

- Relative Risk Reduction - Tracks both site counts and funding for each relative risk category. Status of sites in each relative risk category for each FY is used to indicate progress toward the FMR goals of relative risk reduction. The main goal is to lower the number of sites in the "High" relative risk category.

- Phase Progress - Tracks the number of sites and funds in study, cleanup, and RC/NFA categories. Progress is indicated as sites go from the investigation phase and cleanup phase to the RC or NFA categories. The main goal is to increase the number of sites remediated and closed out.

- Installations Achieving Final RIP/RC - Tracks the number of installations that have all sites in the RIP or RC categories. The main goal is to increase the number of sites in the RIP and RC categories.

The Army will track the performance of MMRP category sites separately from IRP category sites.

4.6.2 Army Cleanup Strategic Plan Goals

In 2003, the Army implemented a new Cleanup Strategy and identified program goals in its corresponding Cleanup Strategic Plan. The primary goals are to identify common objectives for creating consistency and accountability across the Army's cleanup program and to provide direction to implement a cost effective program.

*See **Appendix H** for a detailed explanation of Army Cleanup Strategic Plan Goals*

4.6.3 THE DERP Annual Report to Congress

The Congress requires DoD to submit an annual Report to Congress that describes the DERP accomplishments during the previous FY. Requirements are outlined

in §120(e)(5) of CERCLA and §211 of SARA, as amended on 10 November 1993. The report details progress made in carrying out environmental restoration activities at military installations, including success stories highlighting significant DERP activities and initiatives; narrative summaries for NPL installations, proposed NPL installations, and major BRAC installations; and the status of the cleanup. At the end of each FY, the USAEC requests that installations submit success story candidates and provide information for narrative summaries.

The AEDB-R Fall Data submission is a critical source of information for the Report to Congress. Therefore, installations should ensure that the AEDB-R data is updated and submitted as required. The USAEC then compiles and submits the Army's input to DoD. The DoD must then submit the report to Congress by 31 March of each year.

The DERP Annual Report to Congress is available on the Internet:
http://www.dtic.mil/DERP/DERP.htm

4.7 PROGRAM TIMELINES

- **Oct** Report to Congress Draft Narratives
- **Oct** Closeout Obligation Plan for prior FY due
- **Nov** Fall AEDB-R forwarded to DoD
- **Dec** Report to Congress Success Stories and Narratives submitted
- **Dec** DoD Semi-annual IPR
- **Jan** President's Budget submitted
- **Jan** Begin update of CTC requirements
- **Feb** AEDB-R spring data call begins
- **Mar** Annual DERP Report to Congress submitted by DoD
- **Apr** AEDB-R spring data submission due
- **May** Spring AEDB-R forwarded to DoD
- **Jun** DoD Semi-annual IPR
- **Jun** **AEDB-R fall data call begins**
- **Jul** CTC requirements due to USAEC

- **Jul** AEDB-R fall data submission
- **Sep** Upcoming FY Obligation Plan due
- **Oct** Financial Liabilities Report Due

Chapter 5
Program Execution

The Army DERP is executed at the installation level. The installation RPM, the designated Army DERP Executor, and USAEC all play a role in the execution of the Army DERP.

5.1 INSTALLATION

The Garrison Commander is responsible for execution of the installation's Army DERP. Where there is no Garrison Commander, the ODEP or appropriate NGB or US Army Reserve Command will designate an alternative authority. The Garrison Commander or other designated authority will assign a RPM to ensure all work is accomplished in accordance with regulatory, DoD, and Army policy. The Garrison Commander or a designee will also approve all required ESS, CSS and/or explosive or CWM site plans being submitted, through USATCES, to the DDESB for approval for properties under the installation control. The Garrison Commander executes the Army DERP Community Relations Program and determines interest and, if appropriate, creates a RAB or Technical Review Committee (TRC). The RPM's duties include:

- Serve as the primary point of contact between the installation, the ATSDR, the USACHPPM, the USAEC, the DERP Executor, regulators, and the public, although the Garrison Commander remains the ultimate decision authority for the installation
- Coordinate and consult with installation legal counsel on all environmental agreements; coordinate with USAEC on all agreements affecting the DERP. Installation counsel should involve Environmental Law Division (ELD), OTJAG when agreements might be inconsistent with Army/DoD policy.
- Work with State DSMOA representatives to develop joint execution plans, monitor state technical support and review state reimbursement requests as necessary.
- Communicate and negotiate with regulators as the primary Army DERP representative for the installation.
- Establish and maintain the public repository and administrative record.

- Prepare and submit the IAP, DERP Obligation Plan input, DERP Annual Report to Congress input, and related changes through the USAEC PC and the USAEC ERM.

- Incorporate ATSDR recommendations from the Public Health Assessment into the IAP.

- Implement projects; identify and report funding requirements; and program the necessary ER,A funds through the installation obligation plans, CTC, and AEDB-R with estimates of cost and time requirements for performance of specific tasks.

- Assign tasks to the Army DERP Executor; describe the general scope of activities; provide project criteria, goals, and general milestones for restoration work; ensure maximum competition when selecting project management services.

- Provide appropriate funds, in coordination with the USAEC, to the Army DERP Executor for all work required and ensure that funds are allocated only to eligible projects.

- Approve proposed schedules and deadlines for all tasks and deliverables, and provide timely comments and approvals to the Army DERP Executor on items such as scopes of work and project documents.

- Provide guidance to the Army DERP Executor concerning all interpretations of statutes and regulations that may effect performance of a task; obtain concurrence from the USAEC on any deviations from DoD or Army policy and guidance; and document deviations from policy.

- Coordinate with the Army DERP Executor to resolve any impediment to task completion on or before the stated deadline and at or below the stated costs. Notify the USAEC of any penalty and associated costs incurred by the Army DERP Executor’s failure to meet a deadline.

- Provide copies of project documents for review and comment through the USAEC ERM to appropriate Army DERP proponents such as the USACHPPM and ATSDR (when appropriate).

- Provide copies of all RODs/DDs for review and concurrence to the USAEC and the USACHPPM and obtain appropriate Army approval signatures before release of funds for removal/interim/remedial action contracts.

- Evaluate the DERP executor's ability to meet schedules, communicate with the installation staff, provide quality reports, and effectively use available funding resources. If the DERP executor's performance is unsatisfactory, notify the Garrison Commander or other designated authority

who will contact the commander of the executing agency and attempt to resolve the issues. Ensure procurement processes to document performance are followed. If the quality of performance by the DERP executor continues to be unsatisfactory, the Garrison Commander or other designated authority, in concurrence with the USAEC, may transfer execution to another performer. Appropriate notifications shall be made to the DERP executor and the USAEC so that funds can be recovered and redirected to the new performer.

5.2 ARMY DERP EXECUTOR

With the Army-wide implementation of PBC, execution strategies may vary greatly from those historically used in the Army DERP.

The USACE has established Hazardous, Toxic and Radiological Waste (HTRW) Design Districts for executing environmental cleanup activities and Military Munitions Center of Expertise (MM CX) for executing MMRP category responses. The USACE District Project Manager coordinates the support of the Design Districts and Centers and oversees contracts to private industry. Each Design District and Center works within specific geographic boundaries. The Director of Military Programs at HQ USACE may grant approval for an installation to use a USACE District outside of its assigned geographic area.

Installations may also execute Army DERP projects themselves or contract directly with private industry to have the projects executed. The USACHPPM is available to execute specific projects under the Army DERP such as specialized risk assessment and initial site assessment projects--particularly PAs, SIs, and RRSE assessments.

Use of government agencies outside of the Army to execute the Army DERP is discouraged except under unusual circumstances. Economy Act procedures must be followed in those cases. Installations should contact their resource management and legal offices concerning Economy Act procedures.

Through a Memorandum of Understanding (MOU) with the DoD, the ATSDR, a non-DoD federal agency, performs public health assessments for installations on or proposed for the NPL and is authorized to perform Public Health Consultations as requested by any installation. Procedures to request ATSDR assistance can be found in Section 6.3.

The Army DERP Executor duties are as follows:

- Assign a primary point of contact(e.g., USACE District project manager) for the installation RPM. The primary point of contact coordinates execut-

ing organization support to installation requests for contracting services for specific tasks or projects.

- Provide estimates of costs and time requirements for performance of specific tasks forwarded by the installation RPM, including in-house costs, specific contract and pricing data, and costs charged for contract administrative services applicable to each FY for the contract administration; compare historical cost data from analytical laboratories to ensure the DERP Executor can negotiate the lowest available price; and plan laboratory analyses to minimize higher cost turnaround time requirements.

- Propose schedules for all deliverables and accomplishes all tasks within time deadlines set forth by the installation RPM. (Tasks will not be considered complete until reviews are prepared for all work performed and accepted by the installation RPM.)

- Recognize the installation RPM as the sole contact with all environmental regulators; report any contacts by regulators to the installation RPM; and attend all meetings as requested by the installation RPM.

- Request specific approval from the installation RPM before release for publication of any information gathered. Withhold any IRP information not approved for release by the installation RPM.

- Use existing contracts before initiating new contracts for environmental work.

5.3 U.S. ARMY ENVIRONMENTAL CENTER (USAEC)

The USAEC is a FOA to the ASCIM under the direction of the Director of Environmental Programs (DEP). As the program manager for the Army DERP, the USAEC provides a broad range of program management and oversight services in support of the DEP and installations.

The USAEC conducts the HQDA-initiated independent technical review (ITR) and assistance programs (see Section 6.5). The USAEC compiles teams of independent technical experts that review specific remediation projects for installations and provide recommendations concerning the technical feasibility of restoration projects.

The USAEC also oversees all restoration activities at Army installations. The USAEC provides technical assistance with AEDB-R updates for IRP category sites, revisions to the IAPs, CTC updates for IRP category sites, guidance in the overall Army DERP process and performs the CTC and AEDB-R updates for

MMRP category sites. The IAPs, in conjunction with the installation Army DERP Obligation Plan, are used by USAEC to track the progress of the Army DERP at each installation. The USAEC supports business initiatives of HQDA with site review, technical evaluation, and PBC initiatives.

The USAEC ERMs coordinate with installations before any site visits and notify the installation of any issues that arise from the site visit. As necessary, Army DERP project documents should be provided to the USAEC ERM. The USAEC will submit copies of completed documents to the Army's Technical Information Center, the centralized library of all Army environmental documents, located at the USAEC at Aberdeen Proving Ground, Maryland.

To obtain USAEC ERM POC information for a specific installation, contact USAEC's Cleanup Division at **DSN 584-3461** *or commercial* **(410) 436-3461**

5.4 USAEC ENVIRONMENTAL RESTORATION MANAGER (ERM)

The USAEC ERMs are responsible for the technical direction and oversight of the Army DERP for installations assigned to them. The USAEC ERMs provide quality assurance on the data provided by installations for use in reporting Army requirements. All requirements must meet Army criteria for eligibility and must have RRSEs/RACs completed in accordance with current Army guidance. Administrative requirements are directed through the USAEC Program Coordinator to the installation.

In the case of the NGB, the NGB may act as the installation and becomes responsible for all environmental reporting.

USAEC ERM duties include:

- Work as closely as possible with installation team but maintain Army perspective and objectivity.
- Assess program viability; ensure schedules, cost and approach are consistent and reasonable; ensure program planning includes closeout focus and strategy.
- Identify possible roadblocks to progress and work with the installation to overcome those roadblocks. Enlist the resources necessary to get programs on track.
- Review Technical Documents (RI/FS & RFI/CMS documents):

- Coordinate reviews, including Groundwater Extraction and Treatment Effectiveness Review (GWETER), with USACHPPM/USAEC technical support.
- Ensure Data Quality Objectives are identified, i.e., make sure studies have a purpose.
- Ensure plans detail an acceptable technical approach.
- Ensure plans support decision points.

◆ Review Proposed Plans, DDs, and RODs:

- Work with installation on Army position at the RI/FS stage
- Ensure proposed plans and DDs reflect Army position.
- Coordinate USACHPPM and Legal input and review.

◆ Perform quality assurance checks on program management data and coordinate corrections with the installations.

◆ Identify opportunities where use of PBC will enable more efficient use of funds and/or site closeout.

◆ Monitor obligation performance against installation obligation plans and work with the installations to expedite actions.

5.5 U.S. ARMY TECHNICAL CENTER FOR EXPLOSIVE SAFETY (USATCES)

The USATCES reviews and approves all Explosive Safety Submissions (ESS), Chemical Safety Submissions and/or explosive or CWM site plans for consistency with DoD Explosives Safety Standards (DoDD 6055.9-STD) and with DoD and Army explosives safety policies. USATCES also reviews the explosives safety provisions (e.g., land use controls or explosive safety-related notices) of transfer documents (e.g., leases, deeds, findings of suitability for transfer) for property known or suspected to contain MEC or residual explosive hazards that, per DoDD 6055.9-STD, must be submitted to the DDESB for review and approval prior to the transfer.

The ESS and explosive site plan are critical documents for munitions responses to MEC. A DDESB-approved approved ESS is required prior to implementation of

the agreed upon munitions response to MEC. The purpose of the ESS is to ensure that all applicable DoD and DA explosive safety standards are applied during a munitions response.

5.6 U.S. ARMY CENTER FOR HEALTH PROMOTION AND PREVENTIVE MEDICINE (USACHPPM)

The USACHPPM will provide medical and health-related oversight of restoration activities. These activities include the preparation of Public Health Assessments, health consultations, health studies, responses to citizens' petitions and health education activities. The Center reviews and concurs on human health risk assessments and RODs/DDs for the Army Surgeon General and reviews ecological risk assessments.

5.7 BRAC Division and BRAC Field Offices

The BRAC Division and its designated F have responsibility for managing DERP cleanups at non-BRAC excess installations. They work closely with USAEC to identify and prioritize Army DERP activities and to facilitate property transfer.

Chapter 6
Program Procedures

The Army DERP was implemented to address the Army's cleanup responsibilities consistent with CERCLA/SARA, the NCP and as applicable, RCRA corrective action requirements. This section provides additional details on several program procedures required under the Army DERP.

6.1 DECISION DOCUMENTS (DD)

The term "Decision Document" encompasses Records of Decision and Action Memoranda remedies and removals, and Statements of Basis for RCRA corrective actions. Installations will maintain all DDs in the installation Administrative Record and their permanent environmental files and provide copies to USAEC.

6.1.1 CERCLA Remedial Records of Decision (ROD)/DDs

Under the CERCLA/NCP Remedial Action process at both NPL and non-NPL sites, a remedy must be selected and documented in a ROD or DD following receipt of the Proposed Plan, public comments, and consultation with the regulators. The ROD or DD serves as certification that the Army selected the remedy pursuant to CERCLA Section 104 and following the process in CERCLA Section 120 and the NCP Section 300.430. All RODs must explain how the NCP's nine evaluation criteria[1] were used to select a remedy.[2] All facts, analyses of facts, and site-specific policy determinations considered in implementing a remedy should be documented in a ROD in an appropriate level of detail.[3] A ROD describes the site and types of contamination at issue, outlining the risks being addressed. The Feasibility Study alternatives are summarized with a discussion of why the selected alternative was chosen. A ROD explains why the remedy is protective of human health and the environment and how it attains the applicable or relevant and appropriate requirements (ARARs) of other selected federal and state laws.[4] There should also be a description of how the technical aspects of the remedy will

[1] The nine NCP criteria are: overall protection of human health and the environment; compliance with applicable or relevant and appropriate requirements; long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; cost; state acceptance; and community acceptance. These criteria and a brief explanation of their scope can be found in 40 Code of Federal Regulations 300.430(e)(9) and (f)(1). These criteria are based on the requirements in CERCLA section 121 (42 U.S.C. 9621). For a further explanation of the 9 NCP criteria, see 55 Federal Register at 8719 (March 8,1990).

[2] 40 CFR 300.430(f)(5)(i).

[3] 40 CFR 300.430(f)(5)(i). See also 55 FR at 8731 (March 8,1990), for a general description concerning decision documentation.

[4] 40 CFR 300.430(f)(ii)(A) and (B).

address the specific site contaminants and whether five-year reviews are needed.[5] A ROD should also show how the remedy is cost-effective proportional to its protectiveness.[6]

A ROD should contain the following nine parts:

1. Site Conditions and Background
2. Current and Potential Future Land/Water Use
3. Site Risks
4. Remedial Action Objectives[7]
5. Description and Comparative Analysis of Alternatives[8]
6. Description, Cost and Outcome of Selected Remedy
7. Statutory Determinations (ARARs & Periodic Review)[9]
8. Responsiveness Summary (i.e., summary of responses/significant comments)[10]
9. Declaration of Remedy & Signature

Pursuant to NCP §300.430 (f)(6), after the Army signs the ROD, the Army must:

- Publish a notice of the availability of the ROD in a major local newspaper of general circulation (the USEPA) will publish the notice in the Federal Register).

- Make the ROD available for public inspection and copying at the information repositories located on or near the facility before the commencement of any remedial action.

Per CERCLA §120 (e)(2), the remedial action must commence within 15 months of signing the ROD.

A signed ROD may be re-evaluated, if appropriate, at any point during the remedial action process (i.e., during remedial design, before or after operations are in place, when the selected remedy is found to be ineffective, more stringent cleanup standards are promulgated, or if recently developed technology may better meet cleanup goals). If, after re-evaluation, the selected remedy significantly changes, the Army will prepare an explanation of significant differences (ESD).[11] The

[5] 40 CFR 300.430(f)(5)(ii)(E) and 300.430(f)(iii)(C).

[6] 40 CFR 300.430(f)(5)(ii)(D).

[7] 40 CFR 300.430(f)(5)(iii)(A).

[8] 40 CFR 300.430(f)(5)(ii).

[9] 40 CFR 300.430(f)(5)(ii) identifies the statutory requirements of CERCLA section 121 (42 U.S.C. 9621).

[10] 40 CFR 300.430(f)(5)(iii)(B). See also U.S. EPA, Solid Waste and Emergency Response, *Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents*, EPA540-R-98-031 (July 1999).

[11] 40 C.F.R. § 300.435(c)(2)(i).

ESD would be coordinated with the appropriate regulators and provided to the public for review.[12] For fundamental remedy changes, the Army will have to modify or amend the ROD before the changes can be implemented (see Section 6.1.4).

6.1.2 Removal Action Memoranda/DD

An Action Memorandum serves as the primary decision document substantiating the need for a removal response, identifying the proposed action, and explaining the rationale for the removal.[13] There are, however, three types of removal actions: emergency, time-critical, and non-time critical. While the NCP does not explicitly categorize Removal Actions into these categories, USEPA uses these terms in implementation guidance.[14] In emergency or time-critical situations, it may be necessary to initiate action prior to the preparation of an Action Memorandum.[15] Thus, documentation consistent with this guidance to the extent practicable may occur after the removal action for emergency or time critical removals.

For non-time critical removals, or where time permits prior to time-critical removals, the Action Memorandum should contain the following six parts:

1. Purpose
2. Site Conditions and Background
3. Threats to Public Health or Welfare or the Environment
4. Proposed Action(s) and Estimated Cost (including identified ARARs)
5. Recommendation
6. Signature

The Site Conditions and Background should include a site description and other actions to date. The NCP at 40 CFR 300.415(b) requires a determination that there is a threat to public health or welfare or the environment based on eight factors.[16] Thus, the Action Memorandum documents why removal (as opposed to

[12] 40 C.F.R. §§ 300.435(c)(2)(i)(A), (B)(ii).

[13] See OSWER Dir. 9360.3-01, *Superfund Removal Procedures Action Memorandum Guidance* (Dec. 1990).

[14] For example, EPA Publication 9360.0-32, *Guidance on Conducting Non-Time-Critical Remedial Actions Under CERCLA*, 1993, states that: EPA has categorized removal actions in three ways: emergency, time-critical, and non-time critical, based on the type of situation, the urgency and threat of the release or potential release, and the subsequent time frame in which the action must be initiated. Emergency and time-critical removal actions respond to releases requiring action within 6 months. Non-time-critical removal actions respond to releases requiring action that can start later than 6 months after the determination that a response is necessary.

[15] See OSWER Dir. 9360.3-01, *Superfund Removal Procedures Action Memorandum Guidance*, at page 5 (Dec 1990).

[16] The eight factors are:

(i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants

(ii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

remedial) action is appropriate.[17] The Action Memorandum also describes the proposed action and estimated costs, including how the removal action, to the extent practicable, contributes to the efficient performance of any anticipated long-term remedial action (NCP at 40 CFR 300.415(c)). This section also discusses ARARs, which are to be attained to the extent practicable considering the exigencies of the situation. Non-time critical removals should also refer to the Engineering Evaluation/Cost Analysis (EE/CA) and discuss the alternative actions considered.

6.1.3 Corrective Action Statements of Basis (SB)/DD

A Statement of Basis or similar state designated document serves as the primary DD substantiating the need for a RCRA corrective remedial action with evaluation of the proposed remedy and other alternatives based on risk-based selection criteria. The regulator should prepare a SB when corrective action is implemented through either a permit or an enforcement order[18]. A SB is a remedial selection document similar in purpose to a CERCLA ROD. Because the SB is issued by a regulator, a Corrective Measures Study can serve as the DD for Army staffing purposes. [19]

Although state specific requirements may vary somewhat, a DD/SB should contain the following seven parts:

1. Purpose

2. Site Risk and Background

(iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;

(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;

(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released

(vi) Threat of fire or explosion;

(vii) The availability of other appropriate federal or state response mechanisms to respond to the release, and

(viii) Other situations or factors that may pose threats to public health or welfare or the environment.

[17] See U.S. EPA, Office of Enforcement and Compliance Assurance, *Use of Non-Time-Critical Removal Authority in Superfund Response Action*, February 14, 2000.

[18] See OSWER Dir 9902.6, *Guidance of RCRA Corrective Action Decision Documents: The Statement of Basis Final Decision and Response to Comments*, (Feb 1991). Note that remedy selection and/or site closeout status should eventually be identified in the permit provisions concerning RCRA corrective action or if a corrective action order is updated.

[19] If a Corrective Measures Study(CMS) is used as the Decision Document for Army staffing purposes, the SB does not need to be restaffed unless there are significant differences between the CMS and the SB.

3. Proposed Remedy and Scope of Corrective Action
4. Summary of Alternatives
5. Evaluation of the Proposed Remedy and Alternatives
6. Public Participation if a RAB exists or permit conditions require
7. Declaration and Signature

The Site Risk and Background should include a site description of the contaminated media, the contaminants of concern, exposure pathways, the potential exposed population, and the level of risk to human health and the environment. The EPA's guidance on corrective action established a two-phased evaluation for remedy selection sufficient to meet first threshold then balancing criteria in order to identify the remedy that provides the best relative combination of attributes. A DD/SB should also describe how the scope of the proposed remedy fits into the overall IRP strategy and effectively balances treatment with exposure control for reasonably anticipated reuse.[20]

6.1.4 DD STAFFING AND APPROVAL PROCEDURES

The review and approval procedures for DDs are contained in the DASA(ESOH) Memorandum, 7 Aug 2003, subject: Policies for Staffing and Approving Decision Documents (Appendix G).

6.2 NON-SIGNIFICANT (OR MINOR) POST-ROD CHANGES: MEMO TO THE SITE FILE. ANY NON-SIGNIFICANT OR RECORDS MANAGEMENT

Installations must collect and retain environmental restoration records in accordance with all applicable statutes and regulations, and the record must meet USEPA guidelines. Environmental restoration records will be collected as they are generated or received in the course of the decision-making process.

6.2.1 Administrative Record

[20] See for use as guidance U.S. EPA Proposed Rule for *Corrective Action for Releases from Solid Waste Management Units at Hazardous Waste Management Facilities*, 61 Federal Register 19431. (May 1, 1996). Threshold criteria: Remedies must (1) be protective of human health and the environment; (2) attain media cleanup standards; (3) control the source(s) of releases so as to reduce or eliminate, to the extent practicable, further releases of hazardous waste that might pose threats to human health and the environment ; and (4) comply with applicable standards for waste management. Balancing criteria: For choosing among alternatives that meet the threshold criteria: (1) long-term reliability and effectiveness; (2) reduction of toxicity, mobility, or volume of wastes; (3) short-term effectiveness, (4) implementability, and (5) cost.

Installations shall establish an Administrative Record that contains the documents that form the basis for the selection of IRP and MMRP response actions. The installation shall compile and maintain the Administrative Record in accordance with CERCLA and 40 CFR §300, Subpart I and USEPA guidance.

The Administrative Record serves two purposes. First, the Administrative Record acts as a vehicle for public participation in selecting a response action. Second, judicial review of any issue concerning the adequacy of any response action is limited to the contents of the Administrative Record. Under this provision of CERCLA, the Administrative Record is the sole source of documentation that can be used by a party challenging a response action. It is also the sole source of documents available for the defense of a response action by an installation. It is critical that the installation take care in compiling the Administrative Record. If the installation fails to compile a complete and accurate Administrative Record, it may significantly impact DoD's ability to defend, and the court's ability to review, a challenged decision. A permanent record of the data gathered to characterize a site and a clear audit trail of pertinent data analysis and resulting decisions and actions are required.

The Administrative Record shall include, but is not limited to including:

- Documents and materials containing information that may form a basis for the Army's selection of a response action.
- Documents and materials available to the installation at the time the decision was made.
- Documents and materials that were considered by or relied upon by the installation for decision making.
- Documents and materials that were available to the installation at the time of a decision, even if the decision maker did not specifically consider those documents.
- Privileged and non-privileged confidential documents and materials.
- Documents received, published, or made available to the public as required by CERCLA for removal or remedial site assessments or actions.

6.2.2 Military Munitions Response Program (MMRP) Documentation

For MMRP category responses, installations shall have a permanent record of the data gathered to characterize a site and a clear audit trail of pertinent data analysis and resulting decisions and actions. To the maximum extent practicable, the permanent record shall include sensor data that is digitally recorded and geo-referenced. The ACSIM shall approve exceptions where digitally recording and

geo-referencing are impractical. These data shall be included in the Administrative Record.

6.2.3 Environmental Restoration Information System (ERIS) Documentation

The ACSIM has established an Army policy that requires the storage of environmental restoration data in a centralized database. The ERIS was developed for this purpose and has replaced the outdated Installation Restoration Data Management Information System. All installations that have received ER,A funds to collect environmental restoration data must enter that data into ERIS and must modify existing laboratory contracts to meet this requirement.

See the 17 February 1999 memorandum from the ACSIM, subject: Policy on Electronic Storage of Environmental Restoration Data. See the 12 November 2003 memorandum from the ACSIM, subject: Implementation Guidance for the Use of the ERIS.

6.3 PUBLIC HEALTH REQUIREMENTS

A Public Health Assessment (conducted by ATSDR) is required when an installation is proposed for the NPL or is the subject of a citizen's petition. Upon proposal for the NPL, the installation is contacted by the USACHPPM. The Center instructs the installation on the requirements for a Public Health Assessment, the role of the ATSDR, and negotiates a schedule for an initial ATSDR site visit within 18 months of proposal to the NPL. The USACHPPM provides installations with a schedule for site visits and documents delivery by quarter.

6.4 OFF-SITE RESPONSE ACTION

To fulfill its CERCLA responsibilities per EO 12580, the Army has the authority to conduct response actions outside of the installation boundaries, where the installation is reasonably considered to be the sole or the major source of the CERCLA release. Off-site actions can be complex and often require extensive coordination because of the lack of Army control over the off-site property and the necessity for increased interaction with the public.

For DOD, only, Explosive Ordnance Disposal (EOD) have execution authority for explosives or munitions emergency response actions to control, mitigate, or eliminate the actual or potential threat encountered during an explosives or munitions emergency.

AR 200-1 states that the DASA (ESOH) will approve all off-site response actions. However, since the February 1997 publication of AR 200-1, the DASA (ESOH) has designated authority to the Garrison Commander to approve off-site data collection to determine contamination migration and any off-post monitoring to en-

sure that contamination has not migrated off-site. If there is an actual or high potential threat to human health or safety on or off the installation, the DASA (ESOH) will be immediately notified by the Garrison Commander through USAEC and ODEP. The DASA (ESOH) approves off-post response actions to include either starting or stopping the provision of bottled water, alternative water supplies, wellhead treatment devices, or connection to a municipal water system.

The installation must provide a response plan through the command chain (with information directly to USAEC) to the DASA (ESOH) for any off-site response actions. In emergencies, this plan may be after the fact of receiving verbal or electronic approval from the DASA(ESOH) to respond.

Requirements for notification procedures and the response plan can be obtained from DA PAM 200, Section 11-14. Available on the Internet at http://usapa.army.mil/gils

6.5 TECHNICAL REVIEW AND ASSISTANCE

As a function of program management, the USAEC is responsible for ensuring that the cleanup program is conducted as effectively and efficiently as possible. To that end, the USAEC has established within its Cleanup Division a Technical Review and Assistance Branch to provide both technical review of installation actions and technical assistance in developing sound technical approaches to cleanup problems. The Independent Technical Review (ITR) was the initial project-level technical and legal review and assistance mechanism. This mechanism has been replaced by several initiatives that support the cleanup program.

6.5.1 Site-Specific Technical Assistance

Site-Specific Technical Assistance is useful in the development of investigative and cleanup plans. The overall objective of Site-Specific Technical Assistance is to meet the Army's obligation to protect human health and the environment while ensuring that planned response actions are cost-effective. The Site-Specific Technical Assistance process provides access to top environmental experts from a variety of environmental disciplines. The assistance group reviews specific projects to determine whether the investigative approach, proposed actions, proposed monitoring plans, and exit strategies are technically and legally sound. The assistance is intended to improve decision-making and to support technically and legally sound initiatives. Site-specific technical assistance is adaptive and flexible to meet the needs of the Army.

6.5.2 Groundwater Extraction and Treatment Effectiveness Review (GWETER) Program

The GWETER program focuses specifically on assessing the effectiveness of existing groundwater treatment systems. The primary purpose of these reviews is to determine whether there are more cost-effective alternatives to pump and treat

that were not considered during initial remedy selection. These reviews use technical experts from the government and regulatory agencies to ensure that existing systems have performance goals that define when cleanup is completed and systems can be shut down. In addition, these goals are to be used to ensure that the systems are capable of meeting these goals in a reasonable period and that there are not new technologies that can meet these goals in a more cost effective manner. For example, protocols for determining the effectiveness of natural attenuation have matured and the use of natural attenuation in conjunction with a pump and treat system can be very cost effective. The GWETER examines the basis for risk management decisions and cost effective cleanup by analyzing all aspects of the groundwater exposure pathway. Secondarily, GWETER looks at pump and treat systems still in the proposed stage to ensure that all alternatives to pump and treat are being considered.

6.5.3 Principles of Environmental Restoration (PER) Workshop

A number of general ITR recommendations have been quite common among a large percentage of installation projects reviewed. To address these recurring recommendations and lessons learned, an additional mechanism was developed to provide environmental restoration assistance to the Army: The Principles of Environmental Restoration (PER) workshop. The USAEC adopted the PER to provide more streamlined and direct assistance to Army installations on specific issues, especially decision-based planning. This initiative is the result of an effort to capitalize on a training program developed jointly by the Department of Energy (DOE) and the USEPA to improve the DOE cleanup program.

The purpose of the PER workshop is to provide tools and approaches that will help decision-makers collect appropriate investigative information and proceed more quickly to acceptable site closeout. The workshop stresses the need for early planning and development of data quality objectives and early development of exit criteria to ensure investigations and cleanups stay on track. The workshop is intended to:

- Provide sufficient understanding of environmental restoration principles to ensure that proposed investigative and cleanup requirements are needed to support risk-based decisions and actions.

- Improve the process within which the installation project teams operate to better focus on the end objectives of the restoration program.

Central to the PER workshop are four key principles of environmental restoration. These principles are:

- Building an effective project management team.

- Clear, concise, and accurate problem identification.

- Early identification of possible response actions.
- Uncertainties are inherent and will always need to be managed.

The workshop addresses the applicability of these principles across the spectrum of restoration efforts – from site investigation planning through site closeout – and how they can be used to improve the decision-making process at most sites.

6.5.4 Performance-Based Contracting (PBC)

The PBC is a concept based on reforms mandated to all federal agencies by the President's Management Agenda, the Government Performance and Results Act of 1993, and the Federal Acquisition Streamlining Act of 1994. These reforms emphasized the need to maximize the focus on results instead of focusing on the process. Using this approach, the government no longer develops a prescriptive statement of work dictating how the contractor will achieve project milestones. Instead, a performance-based approach to environmental cleanup emphasizes the outputs the contractor will produce (e.g., RC, RIP) but does not specify how to produce those outputs. This approach allows private remediation firms the flexibility to conduct environmental cleanups in a manner that is cost effective for their company while ensuring that legal requirements are met and required milestones are achieved.

The PBC approach allows the Army to buy environmental cleanups for a fixed price and at a set schedule. Regulatory agencies should have the same level of involvement as they do under traditional cleanup contracting approaches. The Army maintains oversight of the cleanup and determines upfront (in consultation with the regulators) the desired outcome (typically regulatory closure) that will be achieved. In guaranteed fixed price remediation contracts, the use of environmental insurance offers the Army protection from environmental liabilities.

For the Army's active installations, the USAEC is playing a key role in establishing a formalized PBC program and identifying PBC candidates.

The PBC process involves three phases:

- Technical evaluation and selection of candidate sites, including final determination of appropriateness of pursuing a PBC.
- Initiation of the procurement process:
    - Preparation of a Performance Work Statement.
    - Development of the Independent Government Cost Estimate (IGCE).

  - Development of the Request for Proposal by the contracting organization.
  - Scoping/Bidders Meeting at the installation to initiate the proposal process.
  - Evaluation of the proposals, negotiation, and award/non-award decision.
- ◆ Contract oversight and deliverables.

Not all remediation efforts are candidates for PBC. Restoration efforts where characterization data are not validated or incomplete or where regulatory closure is not easily defined are not good candidates for this approach because of the high risk due to uncertainty. As the level of uncertainty increases, so does the possibility that high-risk projects may not be good candidates for the necessary environmental insurance. However, bidders that are willing to take on more risk at a lower cost are more likely to win PBCs.

Monetary incentives may be included in a PBC in an effort to encourage a contractor to achieve regulatory closure on a particular site in an expedited manner. This approach can assist the Army in reducing out-year LTM and O&M costs.

Award of a PBC is not automatic, nor is the award guaranteed to incumbent contractors at the installation. Candidate bidders must have completed elements of their current work that impinge on the scope of the RFP. During scope development, the Army team attempts to reduce the amount of uncertainty present in order to ensure a sufficient pool of qualified bidders.

Prior to entering into final negotiations with the bidders, the Army develops a negotiation strategy to identify a "walk away" point, which is essentially the agreed-upon point at which the PBC will not be awarded should bids exceed the IGCE and negotiations fail to close the gap to the Army's satisfaction.

For detailed information on PBC, visit the USAEC website at aec.army.mil. For other Technical Review and Assistance information, contact USAEC's Cleanup Division at 410-436-5793/1522 or DSN 584-5793/1522.

6.6 INTERAGENCY AGREEMENT (IAG)/FEDERAL FACILITY AGREEMENT (FFA)

Upon an installation's nomination to the NPL, the installation, the USEPA, and , if the State requests, appropriate state regulatory agencies enter into an IAG/FFA to complete of all necessary remedial actions at the installation. The Garrison Commander and the DASA (ESOH) will both sign the IAG/FFA for the Army.

In order to maintain consistency throughout DoD, DoD and USEPA developed the 1988 USEPA-DoD FFA model language, with edits for state participation dated 17 March 1989, and the most recent revision of 10 February 1999. This model language forms the basis for all FFA negotiations. The FFA model language was not intended to cover all issues that would be included in an FFA, and installations may negotiate additional, necessary provisions on a site-by-site basis that do not conflict with the FFA model language. Such additional provisions do not become part of the model language, nor are they binding precedent for other FFAs for that or any other DoD installation.

The ODUSD must approve deviations to the model language. The concepts of "flexible" schedules, funding constraints, and relative risk must be incorporated into IAGs/FFAs. DoD and Army strongly support the approach of incorporating more flexible schedules into supporting agreements among FFA parties.

To the extent that an installation negotiates provisions that deviate from the FFA model language in a proposed FFA, that installation will specifically identify each such change and its rationale when submitting the proposed FFA for ODUSD review. In addition, the installation will identify and provide rationale to reviewers for any other significant provision in the draft FFA that would qualify or limit any FFA model provision, as well as novel additions to the model language.

The installation's servicing legal office has the lead in IAG/FFA negotiations; however, the legal chain of command may designate another lead should the installation request assistance. The USAEC counsel and OTJAG will provide assistance during the negotiation process. When the IAG/FFA is sent to DASA (ESOH) through the command chain for signature, the ACSIM requests concurrence from the OTJAG and USAEC. The installation should provide USAEC with copies of the draft IAG/FFA for review and concurrence prior to sending the IAG/FFA to DASA (ESOH) for signature.

See 10 May 2000 Memorandum from the DUSD(ES), subject: Federal Facility Agreement – Deadlines and Funding Model Language for the latest guidance on FFA model Language. See 6 December 2000 Memorandum from the DUSD(ES), subject: Federal Facility Agreement Model Language-Policy on Deviations for the latest policy update at http://aec.army.mil/usaec/cleanup/popup/library/index.html.

6.7 REGULATORY PARTICIPATION

The Army works cooperatively with regulatory agencies so that restoration goals can be accomplished cost effectively, in accordance with applicable laws and regulations. To accomplish this, Army installations should identify points of contact in regulatory agencies, determine communication channels, and establish cooperative relationships. Installations should provide regulators with ready access

to program information, including draft data and documents, and establish procedures for obtaining pertinent information from regulators on a timely basis.

Installations must involve regulatory agencies in:

- RRSEs and RAC scoring results.
- Project planning, budgeting, and implementation (including IAPs).
- Workplan development and site and project prioritization.
- Development of the Conceptual Site Model and sampling and analysis plans and updates.
- RC and Site Closeout determinations.
- RABs and other community involvement initiatives.

The lead regulatory agency is dependent upon the status of the installation. If the installation is on the NPL the U.S.EPA is the lead regulator. Otherwise, the state is the lead regulator.

6.8 PUBLIC PARTICIPATION AND COMMUNITY INVOLVEMENT

Local communities are interested in the results of environmental studies conducted under the Army DERP because of the potential impact on their health, environment, and economic well-being. The Army fully supports public involvement programs that require the Army to solicit and consider the advice from the interested individuals, groups, and government bodies before selecting response alternatives.

Installations should consult with stakeholders throughout the planning and execution process. Consultation involves providing information and seeking feedback/input before decisions are made. Although there is public involvement, the Army retains final decision authority at non-NPL installations as lead agency. Consultation should begin in the program formulation phase, and continue to site closeout. Installations should re-initiate consultation if the remedy changes significantly. The extent of consultation may vary over the life of the program and should be commensurate with the level of restoration activity and stakeholder/community interest. The RAB, where one exists, comprised of representatives of the installation, regulatory agencies and the local community, shall be the primary forum for consultation. Installations that do not have a RAB must ensure a viable pathway of communication exists with the local community.

When changes to the remedial program become necessary, installations will consult with stakeholders, to the extent possible, before final decisions are made.

This could be in the form of activities such as public meetings, public information sessions, newsletters, and press releases.

6.8.1 Community Relations Plan (CRP)

A CRP is required for all Army installations in the Army DERP. The CRP provides the guidelines and "roadmap" for future community relation activities associated with installation cleanup.

> ***CRP guidelines and related information are available on the Internet at http://www.denix.osd.mil/denix/Public/Library/Planning/html.***

6.8.2 Environmental Justice

An Executive Order (EO) requires federal agencies to identify and address disproportionately high and adverse human health and environmental effects of federal programs, policies, and activities on minority and low-income populations. Army addresses and considers environmental justice concerns and issues in its restoration programs. Environmental justice issues within a community will be identified while developing an installation's CRP. The primary source of input for environmental justice issues in a specific community should be the RAB, where one exists.

> ***See EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, the DoD Strategy on Environmental Justice, and related information on the Internet at http://www.denix.osd.mil/denix/Public/Library/Planning/Justice/note7.html.***

6.8.3 Technical Review Committee (TRC)

Per 10 USC §2705(c), a TRC is established to review and comment on the Army's actions with respect to releases or threatened releases of hazardous substances at installations. TRC meetings serve as working sessions for exchanging information and organizational viewpoints. Members of a TRC include at least one representative from the Army; appropriate EPA, state and local authorities; and representatives from surrounding communities. The Garrison Commander is responsible for establishing and chairing or designating an installation/Army chairperson for the TRC.

6.8.4 Restoration Advisory Board (RAB)

To facilitate public involvement, the Army encourages the establishment of RABs. The RABs are a forum between governmental decision-makers and the affected local community providing the opportunity for meaningful community input to the decision-making process including project prioritization. RABs meet the requirement for TRCs in 10 USC §2705. Every installation participating in the Army DERP, to include MMRP projects, must determine community interest in establishing and participating in a RAB. The TRCs should, as appropriate, be converted to RABs at installations where at least one of the following criteria are met:

- Federal, state, or local government agencies formally request that a RAB be formed;
- At least 50 local residents sign a petition requesting that a RAB be formed;
- The Garrison Commander determines that a RAB is needed; or
- Installation closure involves transfer of property to the community.

The installation must keep the TRC/RAB appraised of program funding status and possible impact of any cuts prior to and during program execution. The installation should, at a minimum, provide the TRC/RAB with copies of the IAP and if appropriate have the TRC/RAB participate in the annual update of the IAP. Project work plans should also be provided to the TRC/RAB to ensure they are knowledgeable of the plans, including any changes.

The TRC/RAB members should be involved by providing input on activities/projects, including scope, timing, schedule, and overall environmental restoration funding at the installation. Installations shall inform TRC/RAB members of the existence of fiscal controls, and identify priorities so that, should budget reductions or program adjustment become necessary, TRC/RAB members can provide informed input.

Guidance on the role of RABs is contained in the DA Pam 200-1 Environmental Quality, Environmental Protection and Enhancement. 17 January 2002 at ***http://www.usapa.army.mil/qils*****.**

6.8.5 Technical Assistance for Public Participation (TAPP)

There may be times when community RAB/TRC members require a level of independent technical support. Community RAB/TRC members may seek independent technical assistance to contribute to the public's ability to participate in

the restoration program. To obtain funding, community members of RABs/TRCs must apply for TAPP. The installation reviews the application for eligibility and approval before developing appropriate TAPP funding requirements.

Additional RAB guidance and information on TAPP, can be found on the USAEC library web site, ***http://aec.army.mil/usaec/cleanup/popup/library/index.html.***

6.9 Defense States Memoranda Of Agreement (DSMOA) and Cooperative Agreement (CA) Program

The DSMOA/CA program funds state environmental regulatory agencies for technical services provided in support of the Army DERP. The goals of the DSMOA/CA Program are to expedite the cleanup process, to comply with state regulations, and to improve coordination and cooperation between DoD and state/territorial regulatory communities. The USACE is the executive agent of the DSMOA/CA Program. The Army provides USACE funding for the states that have a signed DSMOA/CA.

The DSMOA describes how a state will provide technical services and the Army will provide funds for those services. The CA specifies short-term services to be provided and the costs of those services for two years. The CA also includes a narrative summary plan of long-term activities with reasonable estimates of cost for an additional four years, as necessary. The CAs will be updated to reflect MMRP requirements.

For detailed guidance on the DSMOA/CA program, see USACE handbook "Working Together to Achieve Cleanup: A Guide to the Cooperative Agreement Process"

http://www.edod.net/dsmoa/

6.10 Monitored Natural Attenuation for Environmental Restoration

While natural attenuation has no specific regulatory definition, the Army defines natural attenuation as the reduction of contaminant concentrations in the environment through biological processes (aerobic and anaerobic biodegradation, plant and animal uptake), physical phenomena (advection, dispersion, dilution, diffusion, volatilization, sorption/desorption), and chemical reactions (ion exchange, complexation, abiotic transformation). Terms such as intrinsic remediation or biotransformation are included within the more general natural attenuation definition.

Natural attenuation requires action; therefore, it is substantively different from a no action alternative. Natural attenuation typically requires extensive monitoring to ensure that the predicted natural processes are taking place. Natural attenuation remedies might take longer than engineered remedies to correct the problem. Additionally, there should be a readily available contingent remedy for the site. It will take credible scientific data, site characterization data, and predictive modeling to prove that natural processes are sufficient to reduce risk in the time frame required.

Army policy directs that natural attenuation must be considered as a candidate remedy for contaminated sites either alone or in combination with active engineered measures. An engineered remedial action will not be approved unless an analysis that includes natural attenuation has been completed and natural attenuation has been shown to be inappropriate for a site cleanup.

Full protocols on the use of natural attenuation for different classes of contaminants commonly found at Army bases are presently under development at USAEC. Until these protocols are available, the Air Force Center for Environmental Excellence's protocol (Technical Protocol for Implementing the Intrinsic Remediation (Natural Attenuation) with Long-term Monitoring Option for Dissolved-Phase-Fuel Contamination in Ground Water) for petroleum contaminants is recommended. In addition, the USEPA issued the following: EPA Directive Number 9200.4-17P, Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites, 21 April 1999.

6.11 LAND USE CONTROLS (LUCS)

The LUCs are physical, legal, and other mechanisms that restrict property use. The LUCs are used to mitigate risks associated with exposure to contamination either during or residual to cleanup, when it is inappropriate or not feasible to eliminate those risks by removing or treating the contaminated media to unrestricted use levels. The LUCs should therefore be used primarily as a component of other remedial actions, unless leaving contaminants in place proves to be the most favorable risk management decision (e.g., due to technical or economic limitations, concerns regarding worker safety, or to prevent collateral ecological injuries). The primary LUC mechanisms are defined as follows:

- Physical mechanisms 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, warn people of dangers, or restrict or contain actual or potential contaminant migration. These mechanisms are also known as Physical Controls or Engineering Controls (ECs).

- Legal mechanisms used for LUCs may be the same as those used for Institutional Controls (ICs) as discussed in the NCP. These mechanisms are primarily imposed to ensure that restrictions on land use, developed as part

of a remedy decision, stay in place. Examples of legal mechanisms include restrictive covenants, equitable servitudes, and deed restrictions for transfer properties

The objective of LUCs is to ensure that land use remains compatible with the land use that was the basis for the evaluation, selection, and implementation of the response action. As such, LUCs are a common component of any response action that does not allow for unrestricted land use following the completion of the response action or when the response action allows for unrestricted use, but there is a need to protect the integrity of the remedy. Because current technologies do not allow for complete removal of all MEC, LUCs will be a component of all munitions responses at MRS known to contain MEC. Where there is a pre-existing restriction, the LUC shall be used to establish the "reasonably anticipated future land use." However, since it is not being instituted as a part of the environmental restoration activities, that pre-existing restriction need not be evaluated as a response alternative. Instead, the pre-existing restriction will be discussed in the factual section of the ROD or DD.

At all sites where a use restriction is part of environmental restoration activities, the LUC must be clearly defined, established in coordination with affected parties, and enforceable. Implementing LUCs through established real estate and land use management mechanisms provides a means to assure that LUCs remain effective. Use of a system of mutually reinforcing controls is often a necessary component in a LUC strategy. When considering LUCs as part of the response alternatives, the unrestricted use alternative must also be considered.

6.11.1 LUCs AT TRANSFERRING PROPERTY

For property that is to be transferred with some type of LUC, proprietary mechanisms may be used to restrict land use. Proprietary controls are contractual or real estate mechanisms, usually established in a transfer deed or contract for sale in the form of covenants or easements. We may supplement such proprietary LUCs with existing forms of control imposed by a State or local government that originate from their police power authorities. This may include zoning, permitting, and local redevelopment ordinances. However, Army cannot impose or enforce these forms of governmental restrictions. Instead, we would work together with State or local governments to ensure that zoning and other forms of restrictions are maintained. LUCs should be incorporated into appropriate transfer documentation.

The LUCs should be managed and maintained at the local level whenever possible. In the case of an active installation, this responsibility will fall within the installation command structure until transfer. In the case of properties transferring or transferred from federal control, the transferee(s) should undertake practical LUC oversight and maintenance responsibilities on property that has left Army control. The appropriate transfer documents should specify the responsibility of the transferee(s) and subsequent property owners and users to maintain and en-

force LUCs. In addition, Army may work together with state or local government agencies or with other appropriate authorities (e.g., zoning boards) to assist in LUC management and enforcement, ensuring compliance with remedial LUCs by a transferee.

At properties transferring from federal control, the Army should use state LUC registries where available. The Army may, upon transfer, grant a property interest to the relevant state or local agency that will allow the state or local agency to maintain and enforce the LUC. Most LUCs at transfer sites would also be memorialized in the deed as deed restrictions or in other publicly available legal instruments. It is essential that the Army consult state property law and state environmental law when drafting the restriction because state law may require the use of a particular type of instrument or operative language.

6.11.2 LUCs AT ACTIVE INSTALLATIONS

In order to ensure that active installation LUCs are observed and maintained, installations will incorporate them into the installation's Master Plan (part of the environmental overlay and an annex with descriptions of both ECs and ICs) (AR 210-20). In addition, Installations will develop written management procedures for maintenance and inspection of ECs and review of proposed actions (e.g.,construction projects, excavations, etc.) that may impact the LUCs (see Appendix I for examples).

Approaches to LUC documentation will differ between active and transfer sites. Active installations cannot use restrictive covenants or negative easements to restrict property because these restrictions cannot be created without a conveyance. Furthermore, federal real property policy generally does not permit creation of restrictive covenants or negative easements by a land holding agency, such as the Army. As a practical matter, even if these restrictions could be placed on active installation property, restrictive covenants would not be effective for notifying installation personnel of the existence of land use controls because they are recorded in the local land records office, and title searches are typically not performed when making land use decisions at active installations. However, State law may permit alternative means of recordation, such a LUC notice, so installation representatives should consider State real property law when approaching this issue. A LUC notice does not create or convey a property interest.

6.11.3 DOCUMENTING AND IMPLEMENTING LUCs IN RODs/DDs

Coordinate with the installation legal office on LUC documentation and implementation to ensure consistency with any recent guidance. The most recent HQDA guidance is contained in DASA(ESOH) memorandum, subject: Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Record of Decision (ROD) and Post-ROD Policy, dated 2 March 2004 (Appendix I). Only broad LUC objectives, not specific installation implementation actions, will be included in the CERCLA ROD/DD. This means that installations will

keep the ROD lean (by stating what the LUC is and what the LUC's purpose (remedial action objective(s)) is in the ROD). The implementation details are to be included in documentation for the RD Phase (this may be a RD Work Plan, RA Work Plan, LUC Implementation Plan, Remedial Design, etc., depending on the terminology used by the specific installation, state and USEPA region). Once further guidance on land use controls is approved, it will be provided via memorandum and on the USAEC web site.
http://www.dtic.mil/envirodod/Policies/PDLUCS.htm

6.12 FIVE-YEAR REVIEWS

In accordance with CERCLA and the NCP, if hazardous substances, pollutants, or contaminants remain at a site after a response action, at levels that do not allow for unlimited use and unrestricted exposure, a CERCLA five-year review is required. However, this is a CERCLA-specific requirement. Where a RCRA Corrective Action has been implemented, a five-year review is not required. The CERCLA five-year review will be conducted no less often than every five years after a selected remedial action has been initiated, or in accordance with the ROD/DD. The first review will be conducted no more than five years after the initiation of on-site construction for the first site requiring a five-year review. All sites will be included in the first review regardless of their phase of cleanup unless they have already been cleaned up for unrestricted use. Five-year reviews will continue until contaminants are below levels that allow for unrestricted use for all sites, as determined by the Army.

The USAEC will distribute an annual memorandum notifying affected installations that a five-year review is scheduled in the next FY. The USAEC will set the installations' five-year review schedule for the next FY based on the submitted ROD/DD information in AEDB-R. The Garrison Commander will review the response action to ensure that human health and the environment are being protected. The review process will also be used to determine whether active treatment remedies and long-term monitoring programs are operating efficiently and continue to be cost effective. If a selected remedy is determined to be inoperative and/or not protective of human health and the environment, a new remedy will be selected that complies with the provisions of CERCLA and the NCP.

Five-year reviews for ER,A eligible projects will be funded by ER,A. Installations will be responsible for updating the associated CTC and for programming for funds in AEDB-R. Installation obligation plans will list USAEC as the executor to allowing funding transfer directly from USAEC to the executor. The USACE HTRW Center of Expertise will conduct all CERCLA five-year reviews at NPL and non-NPL installations being funded by ER,A . The only exception will be at those installations that have instituted a PBC that holds the contractor responsible for conducting the five-year review within the contract period of performance.

For all active installations except excess installations assigned to the BRAC Division, the Installation Commander is the approval authority. The installation will obtain USAEC concurrence prior to submitting copies to regulators for review and comment.

See the Memorandum from ACSIM, subject: Final Guidance for Conducting Five-Year Reviews, for the latest guidance on five-year review requirements at Army Installations:

http://www.denix.osd.mil/denix/DOD/Policy/Army/Cerclareviews.pdf

6.13 END OF RESTORATION PROGRAM

Sites remain in the Army DERP until all required response actions have been completed. Requirements at these sites will continue to be programmed and budgeted in the appropriate environmental restoration account.

6.13.1 Response Complete (RC)

Consistent with CERCLA, the DERP, and applicable Executive Orders and regulations, the Army shall consider environmental response activities under the Army DERP RC when it achieves and documents all the response objectives identified in an appropriately signed ROD/DD.

If Army DERP activities allow for unrestricted use of the property, RC occurs when there is verification of the achievement of the response objectives detailed in the ROD/DD. If Army DERP activities do not allow for unrestricted use of the property, RC occurs when the following three conditions are met:

- There is verification of the achievement of the response objectives detailed in the ROD/DD.
- At least one subsequent review has been conducted to ensure the response action has remained effective and continues to be protective of public safety, human health and the environment as defined by the response objectives detailed in the ROD/DD.
- At least five years have elapsed since the remedial action objectives were first achieved.

6.13.2 Reopened Sites

Any site that previously completed all required response actions that is determined, by the results of subsequent long-term management actions, to require additional response actions to achieve the response objectives identified in the ROD/DD will be considered a “re-opened environmental restoration site." Addi-

tional response action requirements at such sites shall be programmed and budgeted in the ER,A account.

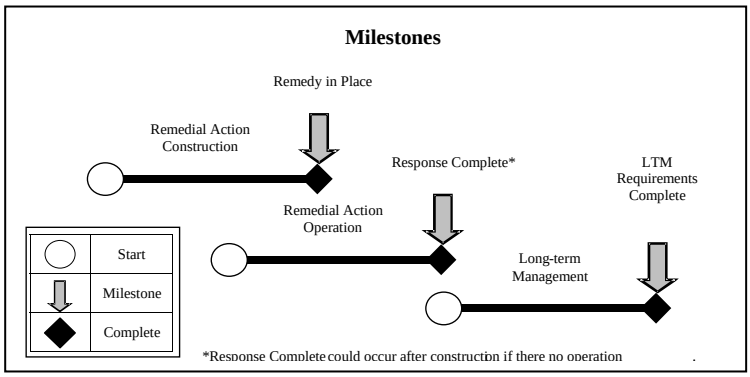
The second type of reopened site relates to sites where the investigation(s) have been completed (PA, SI, RI/FS) and subsequently, an investigative phase is reopened. These sites will also be considered "re-opened environmental restoration sites." Additional environmental study or response action requirements at such sites shall be identified during AEDB-R updating.

Reopening of a site or investigation requires justification. That justification will be included in the narrative field of the site general information in AEDB-R.

6.13.3 Post Remedial Design (RD) Procedures

The terminology for work in the final stages of remediation was developed to more accurately reflect the status of the site. Remedial Action-Construction (RA(C)) is the phase 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. The RA(O) is the phase during which the remedy is in place and operating to achieve the cleanup objective identified in the ROD/DD. Any system operation or monitoring requirements during this time should be termed RA(O). RC signifies that the remedy is in place and the required RA(O) has been completed. If there is no RA(O) phase, then the RA(C) end date will also be the RC date. Once a site is RC, environmental monitoring or review of site conditions and/or maintenance of the remedial action to ensure the remedy is operating as designed is termed LTM. The LTM refers to monitoring and other management requirements once a site is RC, and should not be used to refer to monitoring after RIP, which is included in RA(O). (This includes sites for which the selected remedy is natural attenuation.)

Installations and USAEC ERMs should review AEDB-R data inputs to ensure that data reflect the terminology described herein.



6.14 Natural Resource Injuries (NRI)

As stated in the ODUSD (I&E) memorandum, Interim Policy on Integration of Natural Resource Injury Responsibilities and Environmental Restoration Activities (2 May 2000), the Secretary of Defense has delegated the authority as a CERCLA natural resource trustee to the head of each Component, with authority to re-delegate a representative as appropriate. Installation Commanders do not serve as natural resource trustee representatives.

At sites where the Army is acting as CERCLA Lead Agent, installations shall identify potential NRI attributable to releases of hazardous substances as they perform site characterizations. This evaluation is intended to provide relevant information regarding the current condition of the natural resources. Such data are then used to assist the installation in the assessment of the threshold criteria of "overall protection of human health and the environment" that is part of the evaluation of response alternatives. As part of the evaluation of response alternatives, installations shall assess:

- How each response alternative considered addresses the potential natural resource injuries caused by Army activities.
- Whether implementation of that particular response alternative will itself cause additional potential natural resource injury.

The installation shall notify all appropriate Trustees, which may include federal agencies, states, and Native American tribes, of potential injury to natural resources and shall coordinate documents and proposed environmental restoration activities with these Trustees. This coordination does not, however, grant the other Trustees a role in selection of a response. The installation shall also coordinate with Army-wide natural resource professionals to obtain relevant ecosystem information. Installations are encouraged, when feasible and cost-effective, to select a response that will result in the least amount of potential natural resource injury.

6.15 ENVIRONMENTAL RESTORATION ISSUES IN PROPERTY TRANSFER

Army guidance for studies and documentation to support property transfers into and out of Army control are addressed in Section 15-6 of DA Pam 200-1. Since the implementation of the TIM, the IMA now is responsible for the activities the DA Pam 200-1 ascribes to the Army Major Commands (MACOMs), except for those installations belonging to the Army National Guard or are special installations of the MACOMs. Special installations are defined in the following:

http://www.ima.army.mil/files/Special_Installations_Study1.doc

6.15.1 Deed Covenants

The CERCLA §120(h) has specific requirements for covenants that must be given when transferring property by deed outside the federal government. The Installation Legal Office must be consulted to determine when the covenants are required.

When conveying by deed to a non-federal entity, a property where a CERCLA hazardous substance was stored for one year or more, or release to have been known, or known to have been disposed on the property, CERCLA §120(h)(3) requires two covenants in the deed (unless the property recipient is a PRP for contamination on the property).

- The first covenant, under CERCLA §120(h)(3)(i), states that all necessary remedial action with respect to any hazardous substance remaining on the property has been taken before the date of transfer. In the case of early transfer, this covenant will be withheld upon conveyance, and issued instead upon completion of cleanup.

- The second covenant, under CERCLA §120(h)(3)(ii), warrants that any additional remedial action found to be necessary after the date of the transfer would be conducted by the United States.

- In addition, the deed must contain a clause granting to the United States access rights to enter the property to conduct any future remedial activities.

When conveying by deed to a non-federal entity, property that has been identified as "uncontaminated" (i.e., where no CERCLA hazardous substance, petroleum product, or petroleum product derivative was released or disposed) and where no remedial action has been necessary, the deed shall contain a covenant required by CERCLA §120(h)(4)(D)(i) warranting that any remedial action found to be necessary after the date of the transfer will be conducted by the United States. In addition, the deed must contain a clause granting to the United States access rights to enter the property to conduct any future remedial activities.

For property known or suspected to contain MEC, to include property on which there is a potential for residual explosive hazards to remain, a covenant or notice is required. At a minimum, the notice should advise of the former use of property as a military installation, that there is a possibility that MEC may exist on the property, that should MEC be found on the property it should not be moved, disturbed or destroyed, but shall immediately reported to the local police who will request DoD support of an explosives or munitions emergency**.**

6.15.2 Post-Transfer Restoration Activities

Installations should disclose all environmental restoration activities that were required at a given property to the communities and the transferee. This shall include the basis for selecting the reasonably anticipated future land use used in evaluating the need for a response action, or in formulating remedial alternatives for evaluation. Installations should also provide the transferee a copy of the current DoD policy on additional restoration after transfer [currently the Deputy Under Secretary of Defense (Acquisition and Technology) (USD (A&T)) memorandum, Responsibility for Additional Environmental Cleanup after Transfer of Real Property (25 July 1997)]. Additional environmental restoration activities necessary to address contamination attributable to DoD activities will be performed consistent with the reasonably anticipated future land use assumptions used to evaluate the original remedy and CERCLA §120(h).

Unless otherwise provided for in transfer documentation or by prior notification, the installation that disposed of the property will be responsible for additional environmental restoration if:

- Additional contamination discovered after transfer that is attributable to Army activities that occurred prior to transfer, and that is inconsistent with the established remedy.

- A determination is made that a remedy is no longer protective of human health and the environment due to a failure of the remedy or a change made in the applicable health or environmental standard that applies.

DoD will not conduct additional environmental restoration activities to accommodate changes in land use after transfer where the:

- Reasonably anticipated future land use assumptions used for remedy selection were based on the Local Reuse Authority (LRA) reuse or other appropriate planning agency input.

- Remedy selection process included local community input.

- The LRA and/or community request additional environmental restoration activities solely to facilitate a use prohibited by deed restriction or other appropriate LUC.

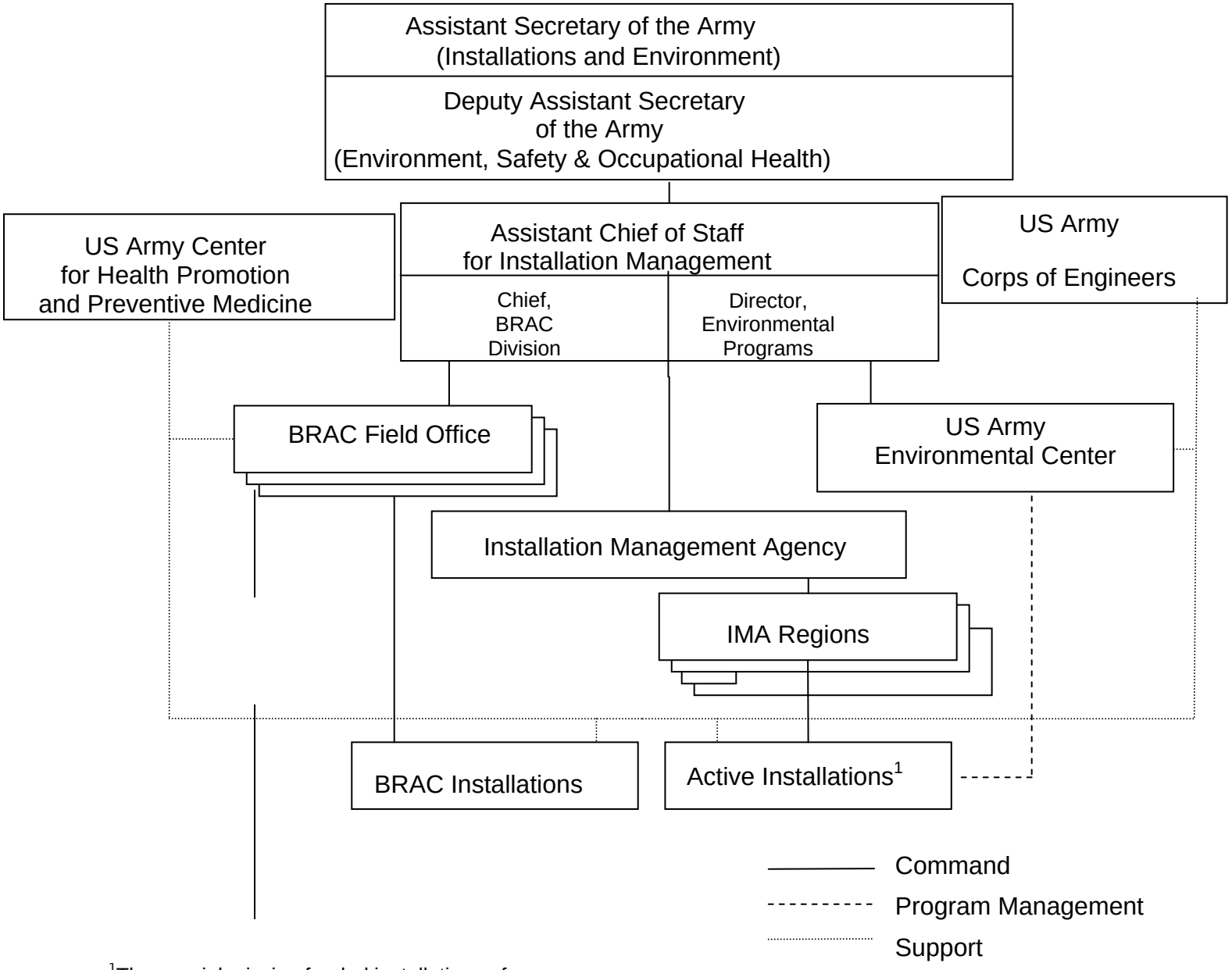
In cases where there is a need for any environmental restoration activities such as monitoring, operation and maintenance of remedial systems, or five-year reviews, to continue after transfer to non-DoD entities, installations will coordinate through the USAEC ERM to determine how to fund such activities in the most cost-effective manner. Options for conducting these activities may include:

- Transferring specific LUC inspection, oversight, maintenance, reporting and enforcement responsibilities to the new owner(s) and user(s).

- Reimbursing another DoD entity (e.g., USACE) to conduct the required work.

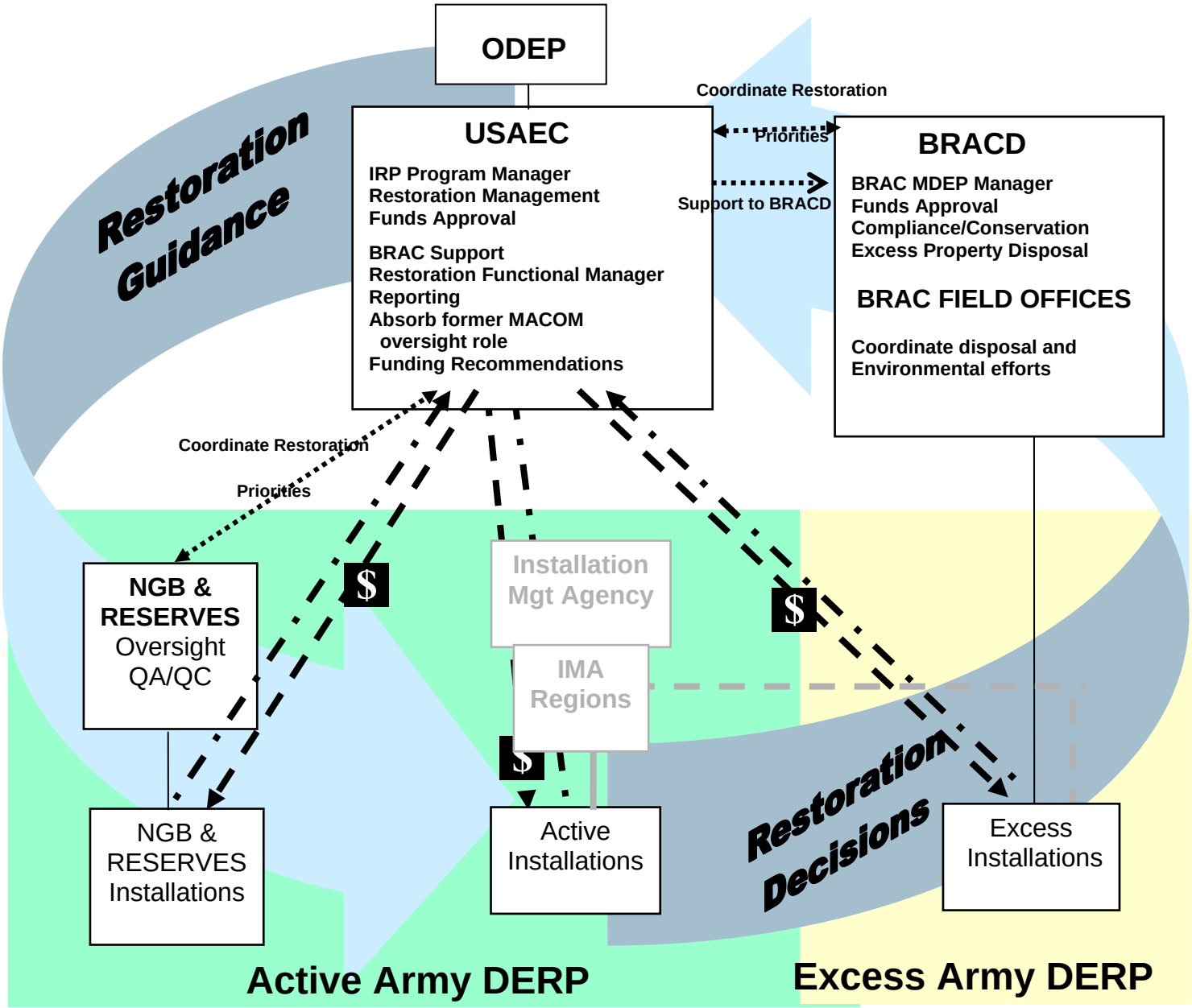
- Performing the required work. This option is not preferred and shall be chosen only when it is the most reliable and cost effective way to ensure that work will be completed.

Appendix A
Department of the Army Command Structure



[1]The special mission funded installations of the MACOMs have the same relationship with their MACOM headquarters as the other active installations with IMA.

Appendix B
Restoration Concept



Appendix C
Non-BRAC Excess Properties

Badger Army Ammunition Plant (AAP)

Charles Melvin Price, Support Center (currently no ER,A funding)

Cornhusker AAP

Indiana AAP

Joliet AAP

Longhorn AAP

Ravenna AAP

Rocky Mountain Arsenal

St Louis AAP (currently no ER,A funding)

Sunflower AAP

Tarheel AAP (currently no ER,A funding)

Twin Cities AAP

Volunteer AAP

Appendix D
Examples of Eligible and Ineligible Restoration Activities

IRP Activities Eligible for ER,A Funding

Investigations to identify, confirm, and determine the risk to human health and the environment resulting from past DoD contamination. This also includes feasibility studies or engineering evaluation and cost analysis (EE/CA); remedial action plans and designs; and removal or remedial actions.

Expenses associated with cooperative multi-party cleanup plans and activities including litigation expenses.

Remedial actions to protect or restore (not enhance) natural resources injured by contamination from past hazardous waste disposal activities.

Cleanup of low-level radioactive waste sites which have been identified as restoration sites.

Management expenses associated with the Army DERP. Management expenses are those overhead costs required for adequate program oversight and management.

Operation and maintenance costs for remedial and monitoring systems.

Immediate actions necessary to address health and safety concerns resulting from past Army contamination such as providing funding for alternate water supplies or treatment of contaminated drinking water.

Releases from underground storage tanks that were not in service as of Oct 17, 1986.

CERCLA response actions and eligible RCRA corrective actions identified in Federal Facility Agreements/Interagency Agreements (FFA/IAGs).

Corrective actions at solid waste management units (SWMUs) needed because of past Army activities unless the SWMU is subject to RCRA closure requirements.

Support services provided by another agency in accordance with 10 U.S.C §2701(d).

Activities responding to UXO, DMM or MC where the release occurred prior to 30 September 2000, and the site was identified and included in DSERTS (now AEDB-R) prior to 30 September 2002, and was not classified as response complete.

MMRP Activities Eligible for ER,A Funding

Activities responding to UXO, DMM or MC where the release occurred prior to 30 September 2002, and the site were not already fully funded in the installation's FY01 CTC estimate.

Investigations and responses at non-operational ranges and other eligible MMRP category sites.

IRP Activities Not Eligible for ER,A Funding

Use of funds for RCRA (i.e.. Federal Facility Compliance Act amended RCRA) fine and penalties associated with restoration activities.

Construction of hazardous waste storage, transfer, treatment or disposal facilities, except when part of a restoration remedial action.

Test or repair of active underground tanks; costs to replace leaking underground tanks.

Costs to store or replace PCB transformers.

Costs of asbestos and lead based paint surveys, containment, removal or disposal, except when incidental to a response action.

Costs of spill prevention and containment measures for operating equipment and facilities.

Cleanup costs of spills associated with current operations.

Costs of operation, maintenance or repair to hazardous waste treatment, storage or disposal facilities that are in use (i.e., regulated or permitted), except when part of a response action.

Investigations or cleanup activities associated with facilities that received operating permits under RCRA.

Activities responding to UXO, DMM or MC where the release occurred on or after 1 October 2000.

Activities responding to UXO, DMM or MC where the site was listed in DSERTS prior to 30 September 2000, and was classified as response complete.

Investigations and responses at non-operational ranges and other eligible MMRP category sites.

MMRP Activities Not Eligible for ER,A Funding

Activities responding to UXO, DMM or MC where the release occurred on or after 1 October 2002.

Activities responding to UXO, DMM or MC at locations outside the United States.

Investigations and responses to munitions constituents (explosives) released to the soil, surface water, sediments, or groundwater as a result of ammunition or explosives production or manufacturing.

Response activities for UXO, DMM or MC resulting from combat operations.

Response activities for UXO, DMM or MC at operational ranges.

Response activities for UXO, DMM or MC at facilities that are used for or were permitted for the treatment or disposal of military munitions.

Appendix E
Table of Eligibility

ACTIVE INSTALLATIONS AND LOCATIONS NOT ELIGIBLE UNDER THE FUDS PROGRAM OR TRANSFERRING UNDER THE BRAC PROGRAM

	Component ER Funds		
Activity	Installation Restoration	Munitions Response	BD/DR
Installation Restoration program category activities at sites where the release occurred prior to October 17, 1986.[1]	E	NE	NE
Installation Restoration program category activities at sites where the release occurred between October 17, 1986, and September 30, 2000, and where the site was identified and included in the DSERTS prior to September 30, 2000.	E	NE	NE
Installation Restoration program category activities where the release occurred after October 17, 1986, and where the site was not identified and include in the DSERTS prior to September 30, 2000.	NE	NE	NE
Installation Restoration program category activities involving military munitions (i.e., UXO or WMM) or the chemical residues of munitions activities where: • The release occurred prior to September 30, 2000; and • The site release is not at a FUDS, operational range, active munitions demilitarization facility, or active WMM treatment or disposal unit; and • The site was identified and included in the RMIS prior to September 30, 2000, and was not classified as "response complete."	E	NE	NE
Military Munitions Response program category activities where: the release occurred prior to September 30, 2002; the release is not at a FUDS, operational range, active munitions demilitarization facility, or active WMM treatment or disposal unit that operated after September 30, 2002, and the site was not identified or included in the DSERTS prior to September 30, 2000.	NE	E	NE
Military Munitions Response program category activities at operational ranges, active munitions demilitarization facilities, active WMM treatment or disposal units, or at non-range locations where the release occurs after September 30, 2002.	NE	NE	NE
Building Demolition/Debris Removal program category activities to address unsafe buildings or structures unused since October 17, 1986, where the activities are an integral part of actions under the Installation Restoration or Military Munitions Response program categories	NE	NE	E
Building Demolition/Debris Removal program category activities to address unsafe buildings or structures unused since October 17, 1986, where the activities are not an integral part of actions under the Installation Restoration or Military Munitions Response program categories. Components must be granted approval by ODUSD(I&E) to before funds may be programmed.	NE	NE	E[2]
Building Demolition/Debris Removal program category activities to address unsafe buildings or structures used since October 17, 1986.	NE	NE	NE
KEY: E= Eligible NE= Ineligible			

[1] 17 October 1986, is the effective date of SARA, the law that amended CERCLA and established DERP.

[2] Components must first request from and be granted approval by ODUSD(I&E) to use ER funds for BD/DR at active installations. Approval must be obtained before funds may be programmed. Office of the Deputy Under Secretary of Defense (Installations and Environment) September 2001

Appendix F

Definitions for the Military Munitions Response Program[1]

Anomaly Avoidance. Techniques employed on property known or suspected to contain MEC, or CWM in OTM configurations to avoid contact with potential surface or subsurface explosive or CA hazards, to allow entry to the area for the performance of required operations.
Chain of Custody. The activities and procedures taken throughout the inspection, re-inspection and documentation process to maintain positive control of Material Potentially Presenting an Explosive Hazard (MPPEH) to ensure the veracity of the process used to determine the status of material as to its explosive hazard. This includes all such activities from the time of collection through final disposition.
Chemical Agent (CA). CA means an agent that, through its chemical properties, produces lethal or other damaging effects on human beings, except that such term does not include riot control agents, chemical herbicides, smoke and other obscuration materials.
Chemical Agent (CA) Hazard. A condition where danger exists because CA is present in a concentration high enough to present potential unacceptable effects (e.g., death, injury, damage) to people, operational capability, or the environment.
Chemical Warfare Material (CWM). Items generally configured as a munition containing a chemical substance that is intended to kill, seriously injure, or incapacitate a person through its physiological effects. CWM includes V- and G-series nerve agents or H-series (mustard) and L-series (lewisite) blister agents in other-than-munition configurations; and certain industrial chemicals (e.g., hydrogen cyanide (AC), cyanogen chloride (CK), or carbonyl dichloride (called phosgene or CG)) configured as a military munition. Due to their hazards, prevalence, and military-unique application, chemical agent identification sets (CAIS) are also considered CWM. CWM does not include: riot control devices; chemical herbicides; industrial chemicals (e.g., AC, CK, or CG) not configured as a munition; smoke and flame producing items; or soil, water, debris or other media contaminated with low concentrations of chemical warfare agents where no CA hazards exist.
Chemical Warfare Material (CWM) Response. Munitions responses and other responses to address the chemical safety; explosives safety, when applicable; human health; or environmental risks presented by CWM regardless of configuration. (See munitions response.)
Construction Support. Assistance provided by DoD EOD or UXO-qualified personnel and/or by personnel trained and qualified for operations involving CWM during intrusive construction activities on property known or suspected to contain MEC, or CWM in OTM configurations to ensure the safety of personnel or resources from any potential explosive or CA hazards.
Chemical Agent (CA) Safety. A condition where operational capability and readiness, people, property, and the environment are protected from the unacceptable effects or risks of a mishap involving chemical warfare material (CWM).

Consolidated MMRP Definitions (cont)

Defense Sites. Locations that are or were owned by, leased to, or otherwise possessed or used by the Department of Defense. The term does not include any operational range, operating storage or manufacturing facility, or facility that is used for or was permitted for the treatment or disposal of military munitions. (10 U.S.C. 2710(e)(1))

Discarded Military Munitions (DMM). 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. (10 U.S.C. 2710(e)(2))

Disposal. End of life tasks or actions for residual materials resulting from demilitarization or disposition operations.

Disposition. The process of reusing, recycling, converting, redistributing, transferring, donating, selling, demilitarizing, treating, destroying, or fulfilling other life-cycle guidance, for DoD property.

Documentation of the Explosives Safety Status of Material. Documentation recording that material: (1) does not present an explosive hazard and is consequently safe for unrestricted transfer within or release from DoD control or (2) is MPPEH, with the stated known or suspected explosive hazards, and is consequently is only transferable or releasable to a qualified receiver. This documentation must be signed by a technically qualified individual with direct knowledge of: (1) the results of both the 100 percent inspection and 100 percent re-inspection, and (2) the chain-of-custody of the material originally classified as MPPEH. This certification is followed by a verification signed by a technically qualified individual who inspects the material on a sampling basis (sampling procedures are determined by DoD entity that is generating the MPPEH).

Environmental Regulators and Safety Officials. Include, but may not be limited to environmental regulators, environmental coordinators or hazardous material coordinators, law enforcement officers, and safety personnel of the US Environmental Protection Agency (USEPA), American Indians and Alaska Natives, other Federal Land Managers, and/or the States. When appropriate, public health officials of various agencies may also be involved.

Explosive Hazard. A condition where danger exists because explosives are present that may react (e.g., detonate, deflagrate) in a mishap with potential unacceptable effects (e.g., death, injury, damage) to people, property, operational capability, or the environment.

Explosive Ordnance Disposal (EOD). The detection, identification, on-site evaluation, rendering safe, recovery, and final disposal of unexploded ordnance and of other munitions that have become hazardous by damage or deterioration.

Explosive Ordnance Disposal (EOD) Personnel. Military personnel who have graduated from the Naval School, Explosive Ordnance Disposal; are assigned to a military unit with a Service-defined EOD mission; and meet Service and assigned unit requirements to perform EOD duties. EOD personnel have received specialized training to address explosive and certain CA hazards during both peacetime and wartime. EOD personnel are trained and equipped to perform Render Safe Procedures (RSP) on nuclear, biological, chemical, and conventional munitions, and on improvised explosive devices.

Explosive Ordnance Disposal (EOD) Unit. A military organization constituted by proper authority; manned with EOD personnel; outfitted with equipment required to perform EOD functions; and assigned an EOD mission.

Explosives or Munitions Emergency Response. All immediate response activities by an explosives and munitions emergency response specialist to control, mitigate, or eliminate the actual or potential threat encountered during an explosives or munitions emergency. An explosives or munitions emergency response may include in-place render-safe procedures, treatment or destruction of the explosives or munitions, and/or transporting those items to another location to be rendered safe, treated, or destroyed. Any reasonable delay in the completion of an explosives or munitions emergency response caused by a necessary, unforeseen, or uncontrollable circumstance will not terminate the explosives or munitions emergency. Explosives and munitions emergency responses can occur on either public or private lands and are not limited to responses at RCRA facilities. (Military Munitions

Rule, 40 CFR 260.10)

Explosives Safety. A condition where operational capability and readiness, people, property, and the environment are protected from the unacceptable effects or risks of potential mishaps involving military munitions.

Interim Holding Facility (IHF). A temporary storage facility designed to hold recovered chemical warfare material (RCWM) pending transportation for off-site treatment or storage, or on-site treatment.

Land Use Controls (LUC). LUC are physical, legal, or administrative mechanisms that restrict the use of, or limit access to, real property to manage risks to human health and the environment. Physical mechanisms encompass a variety of engineered remedies to contain or reduce contamination and/or physical barriers to limit access to real property, such as fences or signs.

Long-term Management (LTM). The period of site management (including maintenance, monitoring, record keeping, 5-year reviews, etc.) initiated after response (removal or remedial) objectives have been met (i.e., after Response Complete).

Material Potentially Presenting an Explosive Hazard (MPPEH). Material potentially containing explosives or munitions (e.g., munitions containers and packaging material; munitions debris remaining after munitions use, demilitarization, or disposal; and range-related debris); or material potentially containing a high enough concentration of explosives such that the material presents an explosive hazard (e.g., equipment, drainage systems, holding tanks, piping, or ventilation ducts that were associated with munitions production, demilitarization or disposal operations). Excluded from MPPEH are munitions within DoD's established munitions management system and other hazardous items that may present explosion hazards (e.g., gasoline cans, compressed gas cylinders) that are not munitions and are not intended for use as munitions.

Military Munitions. Military munitions means all ammunition products and components produced for or used by the armed forces for national defense and security, including ammunition products or components under the control of the Department of Defense, the Coast Guard, the Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives, and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components of the above.

The term does not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components, other than non-nuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) have been completed. (10 U.S.C. 101(e)(4)(A) through (C))

Minimum Separation Distance (MSD). MSD is the distance at which personnel in the open must be from an intentional or unintentional detonation.

Mutual Agreement. A meeting of the minds on a specific subject, and a manifestation of intent of the parties to do or refrain from doing some specific act or acts. Inherent in any mutual agreement or collaborative process are the acknowledgement of each member's role in the process and their differing views of their authorities. The mutual agreement process will provide a means of resolving differences without denying the parties an opportunity to exercise their respective authorities should mutual agreement fail to be achieved.

Munitions and Explosives of Concern (MEC). This term, which distinguishes specific categories of military munitions that may pose unique explosives safety risks means: (A) Unexploded ordnance (UXO), as defined in 10 U.S.C. 101(e)(5)(A) through (C); (B) Discarded military munitions (DMM), as defined in 10 U.S.C. 2710(e)(2); or (C) Munitions constituents (e.g., TNT, RDX), as defined in 10 U.S.C. 2710(e)(3), present in high enough concentrations to pose an explosive hazard.

Consolidated MMRP Definitions (cont)

Munitions Constituents (MC). Any 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. (10 U.S.C. 2710).
Munitions Debris. Remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization, or disposal.
Munition with the Greatest Fragmentation Distance (MGFD). The munition with the greatest fragment distance that is reasonably expected (based on research or characterization) to be encountered in any particular area.
Munitions Response. Response actions, including investigation, removal actions and remedial actions to address the explosives safety, human health, or environmental risks presented by unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC).
Munitions Response Area (MRA). Any area on a defense site that is known or suspected to contain UXO, DMM, or MC. Examples include former ranges and munitions burial areas. A munitions response area is comprised of one or more munitions response sites.
Munitions Response Site (MRS). A discrete location within an MRA that is known to require a munitions response.
One Percent Lethality Distance. A distance calculated from a given CA MCE and meteorological conditions (temperature, wind speed, Pasquill stability factor) and established as the distance at which dosage from that MCE agent release would be 150 mg-min/m^3 for H and HD agents, 75 mg-min/m^3 for HT agent, 150 mg-min/m^3 for Lewisite, 10 mg-min/m^3 for GB agent, 4.3 mg-min/m^3 for VX vapor, and 0.1 mg-min/m^3 for inhalation and deposition of liquid VX.
On-call Construction Support. Support provided, on an as needed basis, by DoD EOD or UXO-qualified personnel and/or by personnel trained and qualified for operations involving CWM during intrusive construction activities on property known or suspected to contain MEC or CWM in OTM configurations, where the probability of encountering such has been determined to be low. This support can respond from off-site when called, or be on-site and available to provide required construction support.
On-site Construction Support. Dedicated support provided by DoD EOD or UXO-qualified personnel and/or by personnel trained and qualified for operations involving CWM during intrusive construction activities on property known or suspected to contain MEC, or CWM in OTM configurations, where the probability of encountering such has been determined to be moderate to high.
On-call UXO Construction Support. Support provided, on an as needed basis, by DoD EOD or UXO-qualified personnel during intrusive construction activities on property known or suspected to contain UXO or other munitions that have experienced abnormal environments where the probability of encountering such has been determined to be low. This support can respond from off-site when called, or be on-site and available to provide required construction support.
On-site UXO Construction Support. Dedicated support provided by DoD EOD or UXO-qualified personnel during construction activities on property known or suspected to contain UXO or other munitions that have experienced abnormal environments where the probability of encountering such has been determined to be moderate to high.
On-the-Surface. A situation in which UXO, DMM or CWM are: (A) entirely or partially exposed above the ground surface (i.e., the top of the soil layer); or (B) entirely or partially exposed above the surface of a water body (e.g., as a result of tidal activity).

Open Burn (OB). An open-air combustion process by which excess, unserviceable, or obsolete munitions are destroyed to eliminate their inherent explosive hazards.
Open Detonation (OD). An open-air process used for the treatment of excess, unserviceable or obsolete munitions whereby an explosive donor charge initiates the munitions being treated.
Operational Range. A range that is under the jurisdiction, custody, or control of the Secretary of Defense and that is used for range activities; or although not currently being used for range activities, that is still considered by the Secretary to be a range and has not been put to a new use that is incompatible with range activities. (10 U.S.C. 101(e)(3)(A) and (B)). Also includes "military range," "active range," and "inactive range" as those terms are defined in 40 CFR §266.201. (See reference (f)).
Primary Explosives. Primary explosives are highly sensitive compounds that are typically used in detonators and primers. A reaction is easily triggered by heat, spark, impact or friction. Examples of primary explosives are lead azide and mercury fulminate.
Public Access Exclusion Distance (PAED). The PAED is defined as longest distance of the hazardous fragment distance, IBD for overpressure, or the One Percent Lethality Distance. For siting purposes, the PAED is analogous to the IBD for explosives; therefore, personnel not directly associated with the chemical operations are not to be allowed within the PAED.
Qualified Receiver. Entities that have personnel who are, or individuals who are, trained and experienced in the identification and safe handling of used and unused military munitions, and any known or potential explosive hazards that may be associated with the MPPEH they receive; and are licensed and permitted or otherwise qualified to receive, manage, and process MPPEH.
Range. A designated land or water area that is set aside, managed, and used for range activities of the Department of Defense. The term includes firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, electronic scoring sites, buffer zones with restricted access, and exclusionary areas. The term also includes airspace areas designated for military use in accordance with regulations and procedures prescribed by the Administrator of the Federal Aviation Administration. (10 U.S.C. 101(e)(1)(A) and (B))
Range activities. Research, development, testing, and evaluation of military munitions, other ordnance, and weapons systems; and the training of members of the armed forces in the use and handling of military munitions, other ordnance, and weapons systems. (10 U.S.C. 101(e)(2)(A) and (B))
Range-Related Debris. Debris, other than munitions debris, collected from operational ranges or from former ranges (e.g., targets).
Render Safe Procedures (RSP). The portion of EOD procedures that involves the application of special disposal methods or tools to interrupt the functions or separate the essential components of UXO to prevent an unacceptable detonation.
Secondary Explosives. Secondary explosives are generally less sensitive to initiation than primary explosives and are typically used in booster and main charge applications. A severe shock is usually required to trigger a reaction. Examples are TNT, cyclo-1,3,5-trimethylene-2,4,6-trinitramine (RDX or cyclonite), HMX, and tetryl.
Small Arms Ammunition. Ammunition, without projectiles that contain explosives (other than tracers), that is .50 caliber or smaller, or for shotguns.
Team Separation Distance (TSD). The distance that munitions response teams must be separated from each other during munitions response activities involving intrusive operations.
Technical Escort Unit (TEU). A DoD organization manned with specially trained personnel that provide verifi-

Consolidated MMRP Definitions (cont)

cation, sampling, detection, mitigation, render safe, decontamination, packaging, escort and remediation of chemical, biological and industrial devices or hazardous material.
Technology-aided Surface Removal. A removal of UXO, DMM or CWM on the surface (i.e., the top of the soil layer) only, in which the detection process is primarily performed visually, but is augmented by technology aids (e.g., hand-held magnetometers or metal detectors) because vegetation, the weathering of UXO, DMM or CWM, or other factors make visual detection difficult.
Time Critical Removal Action (TCRA). Removal actions where, based on the site evaluation, a determination is made that a removal is appropriate, and that less than 6 months exists before on-site removal activity must begin. (40 CFR 300.5)
Unexploded Ordnance (UXO). Military munitions that (A) have been primed, fuzed, armed, or otherwise prepared for action; (B) have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and (C) remain unexploded either by malfunction, design, or any other cause. (10 U.S.C. 101(e)(5)(A) through (C)))
UXO Avoidance. Techniques employed on property known or suspected to contain UXO or other munitions that have experienced abnormal environments, to avoid contact with potential explosive or CA hazards, to allow entry to the area for the performance of required operations.
UXO Technicians. Personnel who are qualified for and filling Department of Labor, Service Contract Act, Directory of Occupations, contractor positions of UXO Technician I, UXO Technician II, and UXO Technician III.
UXO-Qualified Personnel. Personnel who have performed successfully in military EOD positions, or are qualified to perform in the following Department of Labor, Service Contract Act, Directory of Occupations, contractor positions: UXO Technician II, UXO Technician III, UXO Safety Officer, UXO Quality Control Specialist, or Senior UXO Supervisor.
Venting. Exposing any internal cavities of MPPEH, to include training or practice munitions (e.g., concrete bombs), using DDESB- or DoD Component-approved procedures, to confirm that an explosive hazard is not present.

[1] This list expands the list of definitions contained in the 28 Oct 03 memorandum, DASA(ESOH), Subject: Definitions Related to Munitions Response Actions.

Appendix G

Policy for Staffing and Approving Decision Documents[1]

[1] *This appendix is extracted from the DASA(ESOH) memorandum, 7 Aug 03, Subject: Policies for Staffing and Approving Decision Documents. The words and graphics are from Enclosures 1 and 2. The former applies to active installations, the latter to non-BRAC excess installations.*

1. References:

a. DA Pamphlet 200-1, January 2002.

b. Installation Restoration Program Management Plan, March 1999.

c. Management Guidance for the Defense Environmental Restoration Program (DERP), ODUSD (I&E), 28 September 2001.

2. This policy applies to decision documents (DD), including Records of Decision (ROD), Interim RODs, Action Memoranda, and Statements of Basis for response or corrective actions taken in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the National Contingency Plan; Executive Order 12580; and the Resource Conservation and Recovery Act (RCRA).

3. Decision documents are required to document response or corrective actions that are DERP eligible per reference 1c, including interim remedial actions, remedial actions, removals, or implementation of land use controls that Army imposes as part of a remedy to address a CERCLA risk or eligible RCRA corrective action. Emergency response actions shall be documented after the fact. All DDs must be included in the Administrative Record for the installation.

4. Policy: Approval thresholds for DDs are described below:

a. The Garrison Commander is the approval authority for DDs that have a selected remedy with a present worth cost estimate of $2 million or less.

b. The Commander, U.S. Army Environmental Center (USAEC) 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.

c. The Assistant Chief of Staff for Installation Management (ACSIM) is the approval authority for DDs that have a selected remedy with a present worth cost estimate of more than $10 million.

d. For DDs of interest to the Army Secretariat, the Deputy Assistant Secretary of the Army (Environmental, Safety and Occupational Health) (DASA(ESOH)) may elect to co-sign the DD.

5. Staffing Procedures for active installations (Schematic showing the process for staffing is at TAB A):

a. Regardless of approval level, before signing or forwarding decision documents for approval, Garrison Commanders shall staff DDs with their environmental, legal, and public affairs offices. They shall also obtain coordination from USAEC, the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), and, for Military Munitions Response Program (MMRP) category responses with explosive hazards, the U.S. Army Technical Center for Explosive Safety (USATCES).

b. DDs with costs of more than $2 million but less than $10 million: Submit three copies of final DDs with an information copy to the appropriate Installation Management Agency (IMA) region, to USAEC, SFIM-AEC-CD, 5179 Hoadley Road, Aberdeen Proving Ground, MD 21010-5401 for regular mail or USAEC, SFIM-AEC-CD, E4480 Beal Road, Aberdeen Proving Ground, MD 21010-5401 for FedX, with information to the appropriate IMA region. Before signing, the Commander, USAEC will staff the DDs with the USAEC legal and public affairs offices and ensure that the document conforms to Army and Department of Defense policy and direction.

c. DDs with costs of more than $10 million: Submit five copies of final DDs, with information copies to the appropriate Installation Management Agency (IMA) region and USAEC, to Headquarters, Department of the Army, ACSIM, ATTN: DAIM-EDC, 600 Army Pentagon, Washington, DC 20310-0600. The Office of the Director, Environmental Programs (ODEP) will provide copies to the appropriate Headquarters, Department of the Army (HQDA) Staff elements for staffing.

d. The staffing matrix at TAB B shall be completed and included when forwarding a DD to USAEC or ACSIM for approval.

6. The Environmental Law Division (ELD), Office of The Judge Advocate General (DAJA-EL), is available to assist the installations and USAEC legal staff. If installations or USAEC identify legal concerns, they are encouraged to consult with ELD when staffing draft DDs.

7. In addition to placing a copy of all signed DDs in the installation's Administrative Record, installations shall provide one paper and one electronic copy of signed DDs to the the USAEC addresses stated in 5.b. In addition, the approving headquarters shall prepare a short executive summary of all signed DDs and send the executive summary via

email to the Chief of the Cleanup Division, ODEP; to the Assistant for Restoration, Office of the DASA(ESOH); and to the appropriate IMA Region. The executive summary should describe the selected response action and its relationship to other cleanup actions/operable units. It should also contain such information as the degree of risk reduction, present value cost of the remedy and the contribution to the installation cost-to-complete for all remedies, amounts and fiscal year(s) that funds are required for remedial action design and construction, duration of any remedial action operations, land use controls required and means for maintaining them, and other potential remedies considered.

8. Responsibilities: Installations and USAEC shall ensure that DDs that commit the Army to future expenses pass the following checks:

a. The project must be DERP eligible per reference 1c.

b. The Installation Action Plan contains funding for the project(s), and the costs are accurately described in the installation's Cost-to-Complete report. USAEC, as program manager, must ensure that adequate funding exists within the President's Budget (budget years) and Future Year Defense Plan (program years) to support the project(s).

c. The project(s) are consistent with priorities for relative risk reduction as set forth in program guidance.

9. Suspense:

a. Transmittal memoranda should advise the chain of command of any negotiated or imposed deadlines and allow sufficient time for staffing at each level. To assist in planning, TAB A provides the time required for staffing at each stage. . Installations or USAEC should plan on a minimum of two to four weeks to obtain approval after receipt of a complete DD packet at HQDA. They should also ensure regulators are aware of these time constraints during negotiations.

b. In situations when an Interagency Agreement or Federal Facilities Agreement deadline might be missed because of staffing requirements for DDs over $10 million:

(1) The USAEC restoration manager should convene a conference call with the installation, U.S. Army Corps of Engineer district (when appropriate), and ODEP representatives.

(2) The conference call should result in an understanding of any deadlines and if and how the process will be expedited.

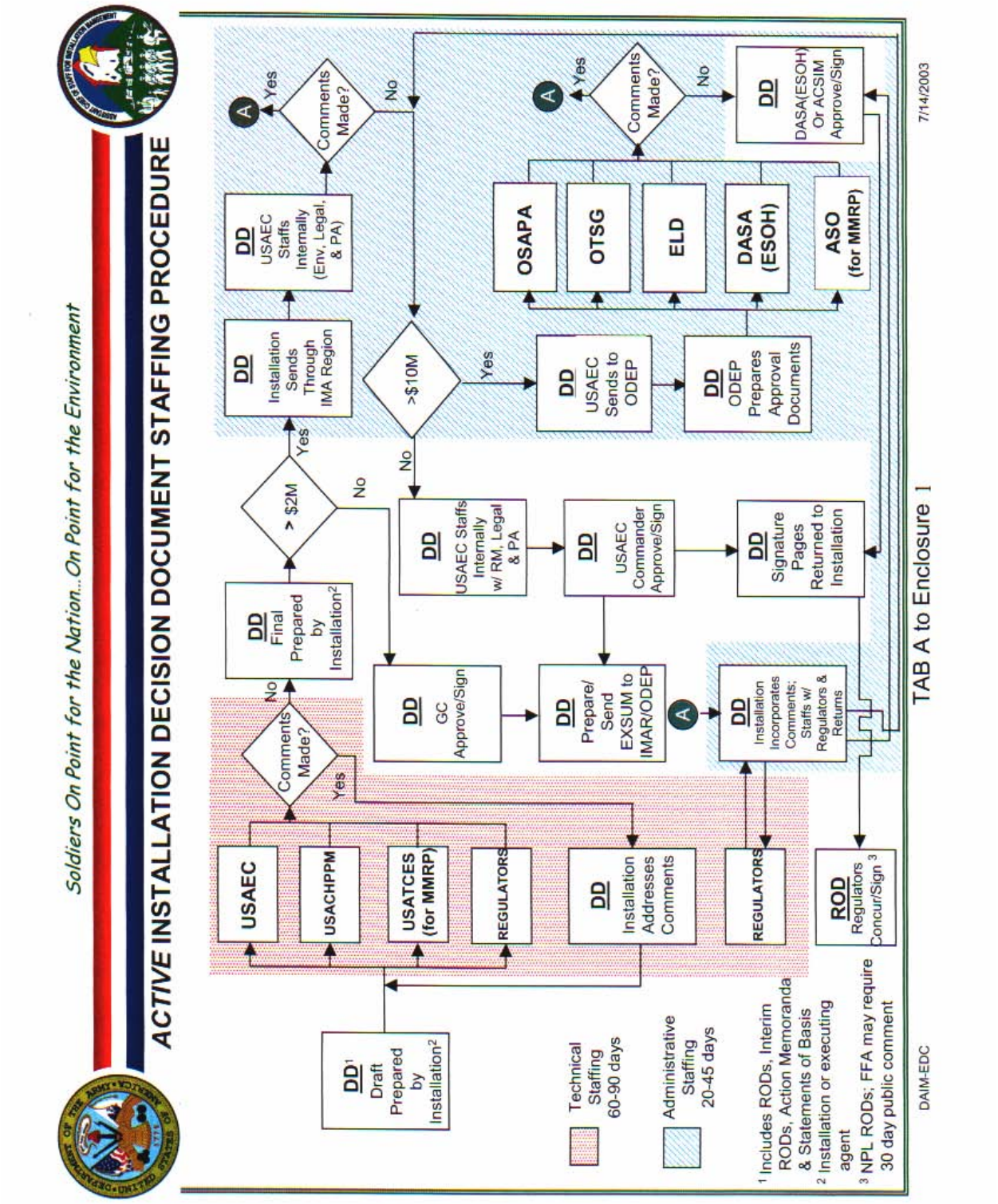
(3) The installation should send, via e-mail (PDF file format for smaller documents) or overnight or next day commercial delivery, a copy of the final DD to ODEP to initiate the HQDA staffing process.

10. Changes:

a. Garrison Commanders may approve Explanation of Significant Differences (ESD) and ROD amendments for RODs that were originally approved by USAEC or ACSIM, if the ESD or ROD amendment does not increase the cost of the project by more than $2 million. Those ESD and ROD amendments that increase the cost of the project by more than $2 million will be forwarded to USAEC (increase of more than $2 million but less than $10 million) or ACSIM (increase of more than $10 million), as appropriate, for approval in accordance with paragraph 5 above.

b. The actual cost of the remedy may exceed the authority of the original approval authority (e.g., $1.5 million ROD approved by garrison commander; actual cost exceeds $2 million) due to, for example, a change in project scope or remedies cost. In that circumstance, the installation shall provide the next higher-level approval authority (USAEC or the ACSIM, as appropriate) information regarding the original scope and cost of the project and the nature, extent, and costs of any changes thereto.

11. This guidance supersedes all previous guidance on this subject, including that in references 1a and 1b, and will be in effect until these references are revised and incorporate this guidance.


Soldiers On Point for the Nation...On Point for the Environment
ACTIVE INSTALLATION DECISION DOCUMENT STAFFING PROCEDURE
DD¹ Draft Prepared by Installation²
USAEC
USACHPPM
USATCES (for MMRP)
REGULATORS
Comments Made?
No
Yes
DD Final Prepared by Installation²
> $2M
Yes
No
DD Installation Sends Through IMA Region
DD USAEC Staffs Internally (Env, Legal, & PA)
A
Yes
Comments Made?
No
DD GC Approve/Sign
DD USAEC Staffs Internally w/ RM, Legal & PA
DD Prepare/ Send EXSUM to IMAR/ODEP
DD USAEC Commander Approve/Sign
DD Signature Pages Returned to Installation
DD Installation Addresses Comments
REGULATORS
DD Installation Incorporates Comments; Staffs w/ Regulators & Returns
ROD Regulators Concur/Sign ³
>$10M
No
Yes
DD USAEC Sends to ODEP
DD ODEP Prepares Approval Documents
OSAPA
OTSG
ELD
DASA (ESOH)
ASO (for MMRP)
A
Yes
Comments Made?
No
DD DASA(ESOH) Or ACSIM Approve/Sign
Technical Staffing 60-90 days
Administrative Staffing 20-45 days
¹ Includes RODs, Interim RODs, Action Memoranda & Statements of Basis
² Installation or executing agent
³ NPL RODs; FFA may require 30 day public comment
DAIM-EDC
7/14/2003
TAB A to Enclosure 1

1. References:

a. DA Pamphlet 200-1, January 2002.

b. Base Realignment and Closure Program Management Plan, April 1999.

c. Installation Restoration Program Management Plan, March 1999.

d. Management Guidance for the Defense Environmental Restoration Program (DERP), ODUSD (I&E), 28 September 2001.

2. This policy applies to decision documents (DD), including Records of Decision (ROD), Interim RODs, Action Memoranda, and Statements of Basis for response or corrective actions taken in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the National Contingency Plan; Executive Order 12580; and the Resource Conservation and Recovery Act (RCRA).

3. Decision documents are required to document response or corrective actions that are DERP eligible per reference 1c, including interim remedial actions, remedial actions, removals, or implementation of land use controls that Army imposes as part of a remedy to address a CERCLA risk or eligible RCRA corrective action. Emergency response actions shall be documented after the fact. All DDs must be included in the Administrative Record for the installation.

4. Policy: Approval thresholds for DDs are described below:

a. The Chief, BRAC FO is the approval authority for DDs that have a selected remedy with a present worth cost estimate of $2 million or less.

b. The Chief, Base Realignment and Closure (BRAC) Division (DAIM-BD) 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. The Chief, BRAC Division may delegate this approval authority for Installation Restoration Program category responses to the Chiefs of BRAC Field Offices (FO) with the concurrence of the Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health) (DASA(ESOH)). Approval authority for DDs for Military Munitions Response Program category responses may not be delegated.

c. The Assistant Chief of Staff for Installation Management (ACSIM) is the approval authority for DDs that have a selected remedy with a present worth cost estimate of more than $10 million.

d. For DDs of interest to the Army Secretariat, the DASA(ESOH) may elect to co-sign the DD.

5. Staffing Procedures for BRAC and excess installations (Schematic showing the process for staffing is at TAB A):

a. Regardless of approval level, before signing or forwarding decision documents for approval, the Chief, BRAC FO shall staff DDs with their environmental, legal, and public affairs offices. They shall also obtain coordination from USAEC, the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), and, for Military Munitions Response Program (MMRP) category responses with explosive hazards, the U.S. Army Technical Center for Explosive Safety (USATCES).

b. DDs with costs of more than $2 million requiring ACSIM or Chief, BRAC Division approval: Submit six copies of final DDs through the appropriate BRAC FO, with an information copy to the appropriate Installation Management Agency (IMA) region, to Headquarters, Department of the Army, ACSIM, ATTN: DAIM-BD, 600 Army Pentagon, Washington, DC 20310-0600. The DAIM-BD will provide copies to the appropriate Headquarters, Department of Army (HQDA) Staff elements for staffing.

c. The staffing matrix at TAB B shall be completed and included when forwarding a DD to the Chief, BRAC Division or ACSIM for approval.

d. Chief, BRAC FO shall provide information copies of all DDs being staffed to the appropriate supporting Garrison Commander.

6. The Environmental Law Division (ELD), Office of The Judge Advocate General (DAJA-EL) is available to assist the installations and BRAC FO's legal staffs. If installations or BRAC FOs identify legal concerns, they are encouraged to consult with ELD when staffing draft DDs.

7. In addition to placing a copy of all signed DDs in the installation's Administrative Record, installations shall provide one paper and one electronic copy of signed DDs to the Commander, USAEC, ATTN: SFIM-AEC-ER, Aberdeen Proving Ground, MD 21010-5401. In addition, the approving headquarters shall prepare a short executive summary of all signed DDs and send the executive summary via email to the Chief of the Cleanup Division, Office of the Director of Environmental Programs (ODEP); to the Assistant for Restoration, Office of the DASA(ESOH); and to the appropriate supporting garrison and IMA Region. The executive summary should describe the selected response action and its relationship to other cleanup actions/operable units. It should also contain such information as the degree of risk reduction, present value cost of the remedy and the contribution to the installation cost-to-complete for all remedies, amounts and fiscal year(s) that funds are required for remedial action design and construction, duration of any remedial action operations, land use controls required and means for maintaining them, and other potential remedies considered.

8. Responsibilities: BRAC and excess installations and BRAC FOs shall ensure that DDs that commit the Army to future expenses pass the following checks:

a. The project must be DERP eligible per reference 1d.

b. The BRAC Cleanup Plan for BRAC installations or the Installation Action Plan for excess installations contains funding for the project(s), and the costs are accurately described in the installation's Cost-to-Complete report. DAIM-BD as program manager for BRAC Cleanup Account funds must ensure that adequate funding exists within the President's Budget (budget years) and Future Year Defense Plan (program years) to support the project(s).

c. The project(s) are consistent with priorities for relative risk reduction and property transfer as set forth in program guidance.

9. Suspense:

a. Transmittal memoranda should advise the chain of command of any negotiated or imposed deadlines and allow sufficient time for staffing at each level. To assist in planning, TAB A provides the time required for staffing at each stage. BRAC and excess installations and BRAC FO should plan on a minimum of two to four weeks to obtain approval after receipt of a complete DD packet at HQDA. They should also ensure regulators are aware of these time constraints during negotiations.

b. For Fast Track Cleanup or in situations when an Interagency Agreement or Federal Facilities Agreement deadline might be missed because of staffing requirements for DDs with costs over $10 million:

(1) The BRAC FO should convene a conference call with the USAEC restoration manager and installation, U.S. Army Corps of Engineer district (when appropriate), and DAIM-BD representatives.

(2) The conference call should result in an understanding of any deadlines and if and how the process will be expedited.

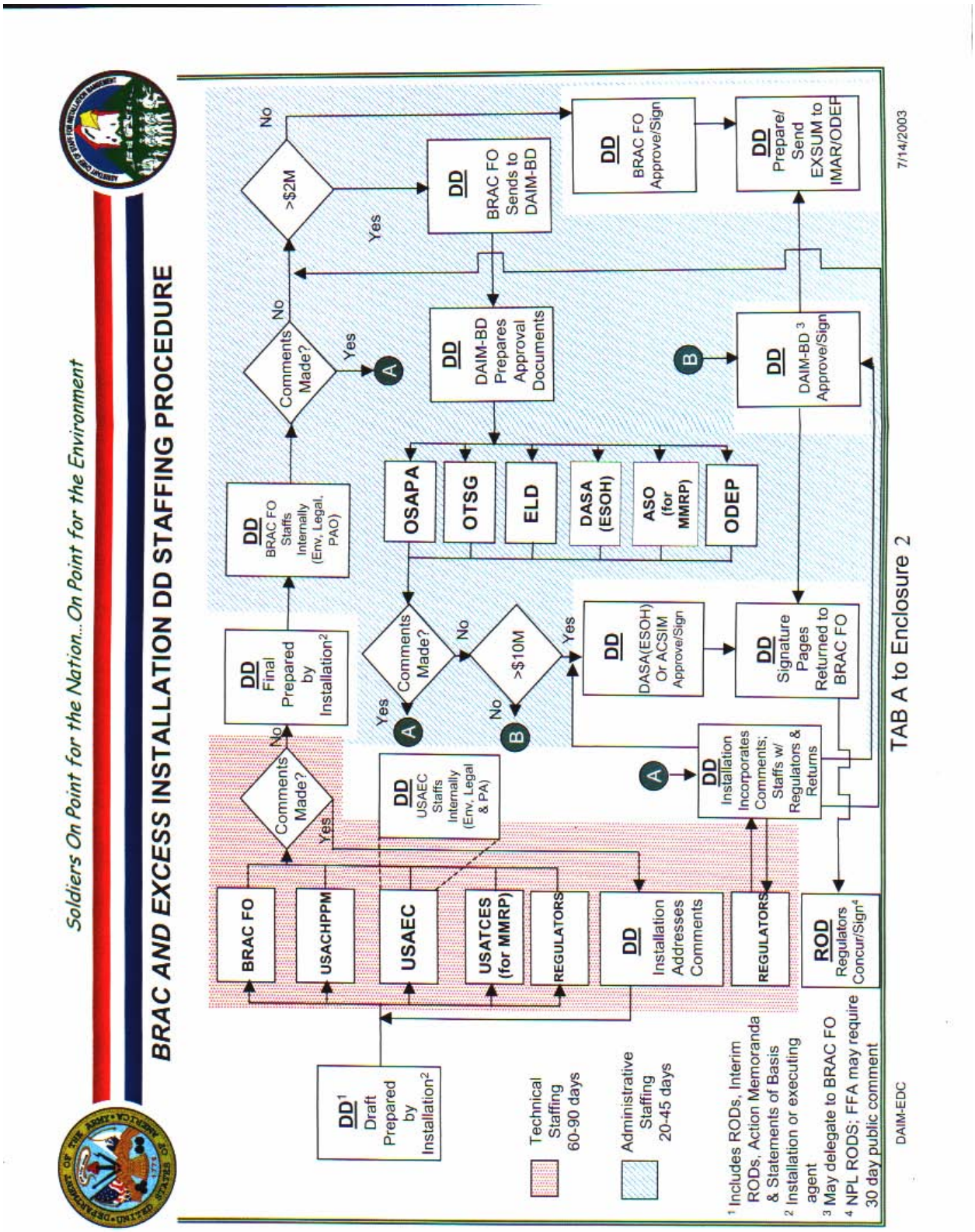
(3) The BRAC and excess installation should send, via e-mail (PDF file format for smaller documents) or overnight or next day commercial delivery, a copy of the final DD to DAIM-BD to initiate the HQDA staffing process.

10. Changes:

a. BRAC FO chiefs may approve Explanation of Significant Differences (ESD) and ROD amendments for RODs originally approved by HQDA, if the ESD or ROD amendment does not increase the cost of the project by more than $2 million. Those ESDs or ROD amendments that that increase the cost of the project by more than $2 million shall be forwarded to DAIM-BD or ACSIM, as appropriate, for approval in accordance with paragraph 5 above.

b. The actual cost of the remedy may exceed the authority of the original approval authority (e.g., $1.5 million ROD approved by BRAC FO; actual cost exceeds $2 million) due to, for example, a change in project scope or remedy cost. In that circumstance, the BRAC FO shall provide the next higher-level approval authority (DAIM-BD or ACSIM, as appropriate) information regarding the original scope and cost estimate of the project and the nature, extent, and costs of any changes thereto.

11. This guidance supersedes all previous guidance on this subject, including that in references 1a, 1b, and 1c and will be in effect until these references are revised and incorporate this guidance.


Soldiers On Point for the Nation...On Point for the Environment
BRAC AND EXCESS INSTALLATION DD STAFFING PROCEDURE
DD Draft Prepared by Installation[2]
DD[1] Draft Prepared by Installation[2]
BRAC FO
USACHPPM
USAEC
USATCES (for MMRP)
REGULATORS
Technical Staffing 60-90 days
Administrative Staffing 20-45 days
DD Installation Addresses Comments
REGULATORS
ROD Regulators Concur/Sign[4]
Comments Made?
Yes
No
DD USAEC Staffs Internally (Env, Legal & PA)
DD Final Prepared by Installation[2]
DD BRAC FO Staffs Internally (Env, Legal, PAO)
Comments Made?
Yes
No
A
OSAPA
OTSG
ELD
DASA (ESOH)
ASO (for MMRP)
ODEP
Comments Made?
Yes
No
A
>$10M
No
Yes
B
DD DASA(ESOH) Or ACSIM Approve/Sign
DD Installation Incorporates Comments; Staffs w/ Regulators & Returns
A
DD Signature Pages Returned to BRAC FO
>$2M
No
Yes
DD BRAC FO Sends to DAIM-BD
DD DAIM-BD Prepares Approval Documents
B
DD DAIM-BD[3] Approve/Sign
DD BRAC FO Approve/Sign
DD Prepare/ Send EXSUM to IMAR/ODEP
[1] Includes RODs, Interim RODs, Action Memoranda & Statements of Basis
[2] Installation or executing agent
[3] May delegate to BRAC FO
[4] NPL RODS; FFA may require 30 day public comment
DAIM-EDC
7/14/2003
TAB A to Enclosure 2

STAFFING MATRIX FOR DECISION DOCUMENTS

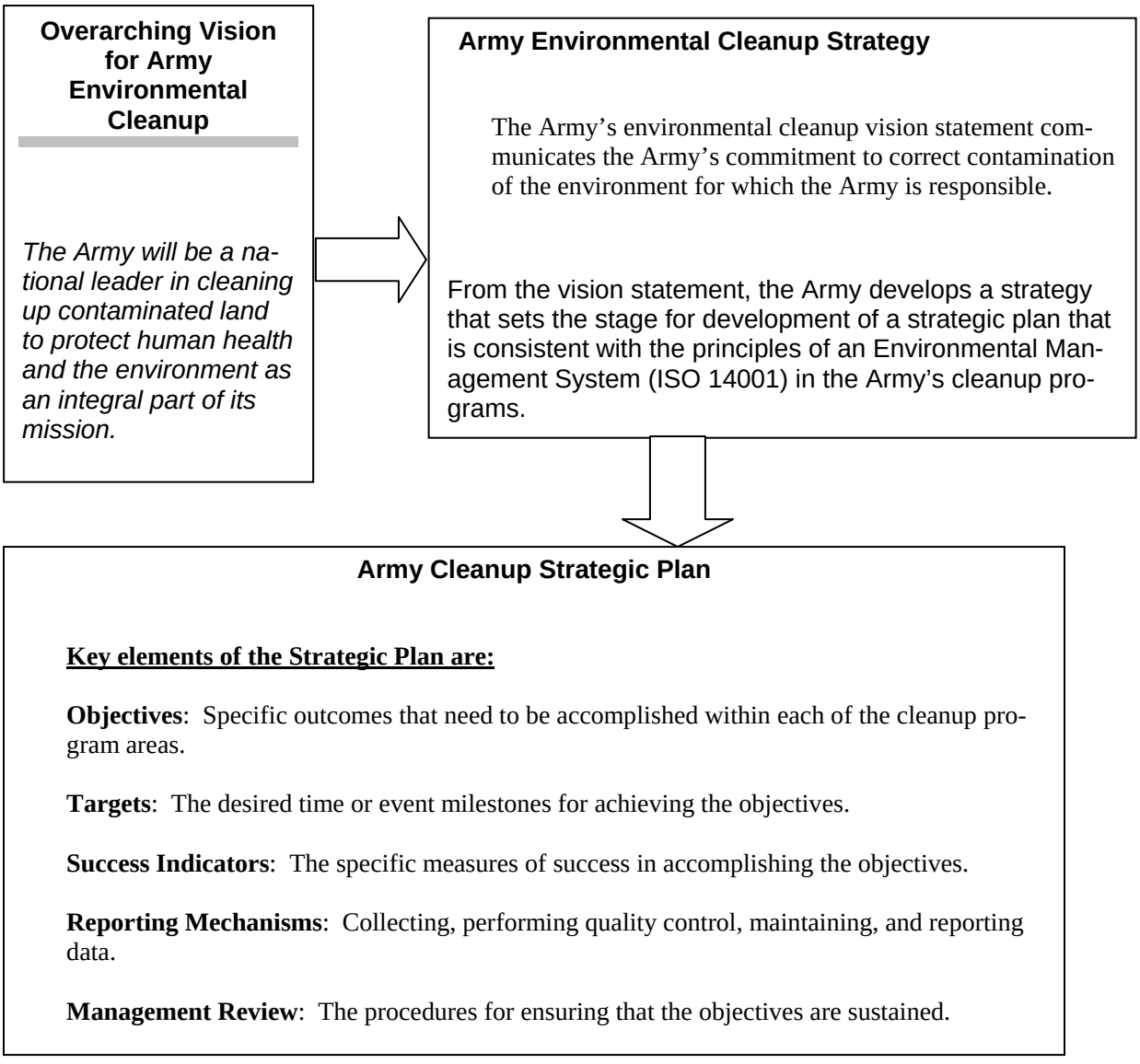
DECISION DOCUMENT TITLE:

ORGANIZATION	STAFF ACTIVITY	POC NAME	OFFICE SYMBOL	PHONE NUMBER	FAX NUMBER	E-MAIL
INSTALLATION	ENVIRONMENT					
	LEGAL					
	PUBLIC AFFAIRS					
	CHPPM					
[1]For MMRP w/explosives risk	USAEC					
	USATCES[1]					
BRAC FO[2]	ENVIRONMENT					
[2] For BRAC & excess installations	LEGAL					
	PUBLIC AFFAIRS					
USAEC[3]	ENVIRONMENT					
[3] For Active (operational)	LEGAL					
installations	PUBLIC AFFAIRS					
HQDA	ODEP		DAIM-EDC	703-601-0599	703-602-0857	firstname.lastname@hqda.army.mil
	TJAG		DAJA-EL	703-696-1230	703-696-2940	firstname.lastname@hqda.army.mil
	ARMY PUBLIC AFFAIRS		SAPA-PD	703-693-5591	703-693-	firstname.lastname@hqda.army.mil
	OTSG		DASG-HS	703-681-3130	703-681-3163	firstname.lastname@otsg.amedd.army.mil
	ODASA(ESOH)		SAIE-ESOH	703-697-1987	703-604-2344	firstname.lastname@hqda.army.mil
	BRACD[2]		DAIM-BD	703-601-1911	703-614-1568	firstname.lastname@hqda.army.mil
	ARMY SAFETY OFF[1]		SAIE-ESOH	703-697-3123	703-614-5822	firstname.lastname@hqda.army.mil

TAB B to Enclosures 1 and 2

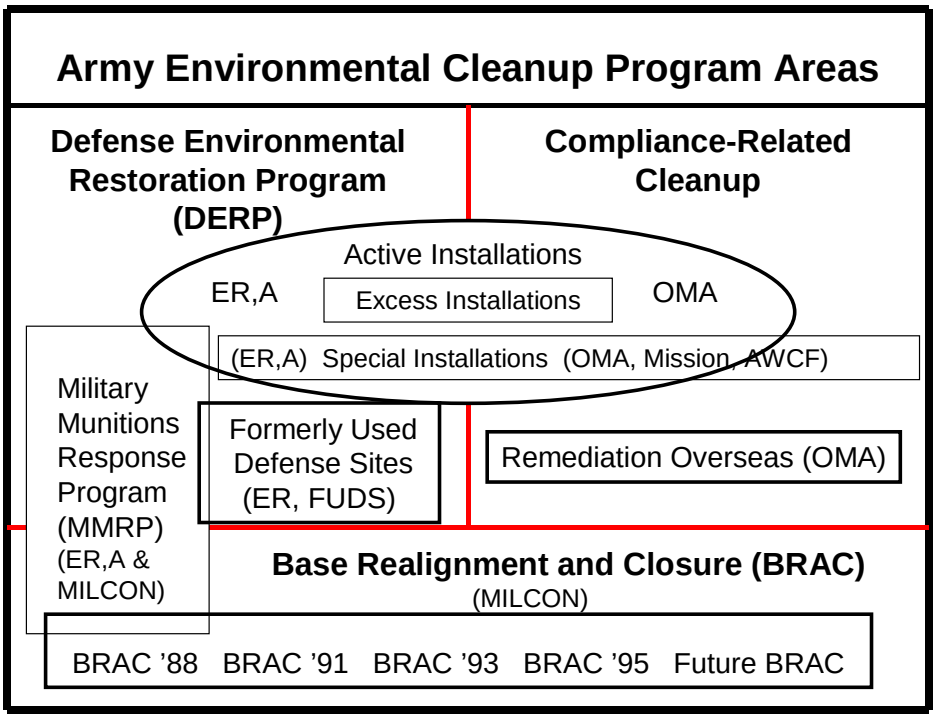
Appendix H
Army DERP Cleanup Program Goals

Army DERP Cleanup Program Goals are ultimately derived from the the Army Environmental Cleanup Strategy (AECS). The AECS identifies overarching objectives to create consistency and accountability across the Army's cleanup programs. A Strategic Plan for each program identifies specific objectives, targets, success indicators, reporting mechanisms, and management review processes for each program area identified in AECS.



Army DERP Cleanup Program Goals (cont)

The cleanup program areas addressed in this strategic plan include cleanup efforts that have been conducted separately under the defense environmental restoration program (DERP), the base realignment and closure (BRAC) and compliance programs. The figure below depicts the differences and commonalities between the cleanup program areas.



The Army has identified Army DERP cleanup program goals within the Army Cleanup Strategy and corresponding Strategic Plan. These additional goals and metrics provide direction for implementing a cost efficient program. The Strategic Plan is updated on a bi-annual basis. The current Army DERP cleanup program goals and objectives within the Army Cleanup Strategic Plan can be found at the USAEC Website at: http://aec.army.mil/usaec/cleanup/index.html

Appendix I
Available DERP Guidance

1. *Management Guidance for the Defense Environmental Restoration Program*, Office of the Deputy Under Secretary of Defense, March 1998. ***Internet http://www.dtic.mil/envirodod/Policies/PDDERP.htm***

2. AR 200-1, *Environmental Quality: Environmental Protection and Enhancement.* 21 February 1997. ***Internet http://www.army.mil/usapa/epubs/index.html***

3. AR 200-2, *Environmental Quality: Environmental Effects of Army Actions*, Department of the Army, 1988. ***http://www.army.mil/usapa/epubs/index.html***

4. DAPam 200-1, *Environmental Quality: Environmental Protection and Enhancement.* Department of the Army, 17 January 2002. ***Internet http://www.usapa.army.mil/gils.***

5. *US Army Environmental Restoration Programs Guidance Manual*, US Army Environmental Center, April 1998. ***Internet http://www.denix. osd.mil/denix/Public/Policy/Army/ERP/erptoc.html***

6. The Final Report of the Federal Facilities Environmental Restoration Dialogue Committee (FFERDC), US Environmental Protection Agency, April 1996. Internet at ***http:/ www.epa.gov swerffrr/ferdcrpt /toc.htm***

7. Websites:

Defense Environmental Restoration Program (DERP) Report to Congress. Online copy of the 1994 through 2003 DERP Reports to Congress. http://www.dtic.mil/envirodod/DERP/DERP.htm

DoD Environmental Cleanup Home Page. Up-to-date information on the DoD cleanup program. http://www.dtic.mil/envirodod/COffice/CleanupO.htm

U.S. Army Corps of Engineers (USACE) Environmental Division. General information on USACE. htpp://hq.environmental.usace.army.mil/

Office of the Director of Environmental Programs – Army. General information on ODEP. http://www.hqda.army.mil/acsimweb/env/

US Army Environmental Center (USAEC). General information on USAEC. http://aec.army.mil

Toxic Substances and Disease Registry (ATSDR)

1. Memorandum, HQDA, DASA(ESOH), 20 Mar 98, subject: Agency for Toxic Substances and Disease Registry (ATSDR) Program Management Plan.

Available DERP Guidance (cont)

2. *Guidelines for the Coordination of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Activities between the Agency for Toxic Substances and Disease Registry and the Department of Defense*, Office of the Deputy Under Secretary of Defense, February 1995.

3. OSWER Directive 9285.4-02, *Guidance for Coordinating ATSDR Health Assessment Activities with the Superfund Remedial Process*, US Environmental Protection Agency, March 1987.

Community Involvement

1. *US Army Restoration Advisory Board and Technical Assistance for Public Participation*, US Army Environmental Center, April 1998. ***Internet http://www.denix.osd.mil/denix/ Public/Policy/Army/ IRP/rabapr98.html***

2. *Restoration Advisory Board (RAB) Resource Book*, Office of the Deputy Under Secretary of Defense September 1996. ***Internet http://www.dtic.mil/envirodod/Policies/RAB/rab_res_book.html***

3. Memorandum, ASA(IL&E), 7 May 96, subject: *Issuance of Policy – The Role of Restoration Advisory Boards (RABs) in Environmental Cleanup*.

4. *Restoration Advisory Board (RAB) Implementation Guidelines*, Office of the Deputy Under Secretary of Defense, and the US Environmental Protection Agency, September 1994. ***Internet http://www.dtic.mil/envirodod/Policies/RAB/rab_finalrab.htm.***

5. OSWER Directive 9230.0-20, *Innovative Methods to Increase Public Involvement in Superfund Community Relations*, US Environmental Protection Agency, November 1990.

6. *AR 360-1*, The Army Public Affairs Program, September 2000 *http://www.army.mil/usapa/epubs/pdf/r360_1.pdf.*

7. Websites:

RAB Information Home Page. Provides a list of publications and information about RABs. ***http://www.dtic.mil/envirodod/Stakeholder/WCommunity/SI_WCRAB.htm***

Cost Estimating

1. "Developing Cost-to-Complete Estimates & Financial Reporting of Environmental Restoration Liabilities for the U.S. Army Environmental Restoration Program", *January 2002*.

2. EPA/542/B-95/002, *Guide to Documenting Cost and Performance for Remediation Projects, Federal Remediation Technologies' Roundtable*, US Environmental Protection Agency, March 1995.

Decision Documents/Records of Decision

1. *Interim Guidance on Environmental Restoration Records of Decision*, Office of the Under Secretary of Defense, 4 June 2002.

2. Memorandum, DASA(ESOH), 7 Aug 03, Subject: Policies for Staffng and Approving Decision Documents.

3. EPA/540/G-89/007, OSWER Directive 9355.3-02, *Guidance for Preparing Superfund Decision Documents; The Proposed Plan, The Record of Decision, Explanation of Significant Differences, and The Record of Decision Amendment (Interim Final)*, US Environmental Protection Agency, July 1989.

Defense State Memorandum of Agreement (DSMOA)

Working Together to Achieve Cleanup: A Guide to the Cooperative Agreement Process, US Army Corps of Engineers, 22 August 1997. ***Internet http://www.mrd.usace.army.mil/mrded-h/access/DSMOA/ dsmoa.html***

Environmental Justice

1. Strategy on Environmental Justice, *Office of the Under Secretary of Defense, 24 March 1995*. Internet at http:/ www.denix.osd.mil/denix/Public/Library/Planning/Justice/note7.html

2. Federal Facilities Agreement/Inter-Agency Agreement at NPL Installations

3. Memorandum, Office of the Assistant Secretary of Defense, 18 Apr 88, subject: *DoD's Policy on NPL Site Agreements*.

Environmental Restoration Information System (ERIS)

1. Memorandum, ACSIM, 17 Feb 99, Subject: *Policy On Electronic Storage Of Environmental Restoration Data.*

2. Memorandum, ACSIM, 12 Nov 03, subject: I*mplementation Guidance for the Use of the ERIS.*

Five-Year Reviews

1. *Guidance for US Army Compliance with CERCLA Five-Year Review Requirements at Army Installations*, US Army Environmental Center 17 July 1998.

2. OSWER Directive 9355.7-03A, *Second Supplemental Five-Year Review Guidance*, US Environmental Protection Agency, 21 December 1995.

3. OSWER Directive 9355.7-02A, *Supplemental Five-Year Review Guidance*, US Environmental Protection Agency, 26 July 1994.

4. OSWER Directive 9355.7-02, *Structure and Components of Five-Year Reviews*, US Environmental Protection Agency, 23 May 1991.

Land Use Controls

1. *Interim Notification Guidance on Documenting and Reviewing Land Use Controls (LUCs) developed under the Army Environmental Restoration Program*, Assistant Chief of Staff for Installation Management, 25 April 2002.

2. *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Record of Decision (ROD) and Post-ROD Policy*, Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health (DASA(ESOH)), 2 March 2004.

Natural Attenuation

Memorandum, HQDA(DAIM-ED), 19 Oct 93, subject: *Interim Army Policy on Natural Attenuation for Environmental Restoration.*

Available DERP Guidance (cont)

Property Transfer

1. Memorandum, USEPA, 16 Jun 98, subject: EPA Guidance on the Transfer of Federal Property by Deed Before All Necessary Remedial Action Has Been Taken Pursuant to CERCLA Section 120(h)(3).

2. Memorandum, HQDA(SAAL-ZA), 24 Apr 98, subject: Environmental Review Process to Obtain the Finding of Suitability Required for Use of Early Transfer Authority for Property Not on the National Priorities List.

3. Memorandum, HQDA(SAAL-ZA), 25 Jul 97, subject: Responsibility for Additional Environmental Cleanup After Transfer of Real Property.

4. Memorandum, HQDA(DAIM-BD), 9 Dec 96, subject: Clarification of Meaning of Uncontaminated Property for Purposes of Transfer by the United States.

5. Memorandum, HQDA(DAIM-BD), 31 May 96, subject: *Guidance for Leasing of BRAC Properties*.

6. Memorandum, HQDA(DAIM-BD), 23 Apr 96, subject: *Army Policy on Consideration of Future Land Use in Determining Cleanup Standards for Base Realignment and Closure (BRAC) Property*.

7. *Fast Track To FOST, Interim Final*, Office of the Deputy Under Secretary of Defense (Environmental Security), February 1995.

8. Memorandum, HQDA(DAIM-ED), 23 Aug 95, subject: *Implementing Guidance for Signature Authority and Staffing Procedures for Finding of Suitability to Transfer/Lease (FOST/FOSL)*

9. Memorandum, HQDA(DAIM-ED), 11 Apr 94, subject: *Use of Environmental Baseline Surveys (EBSs)- Transfer Policy Memorandum*.

Radiological Surveys

1. Memorandum, USAMC, 17 Apr 98, subject: *Radiological Survey Policy for US Army Materiel Command (AMC) Radioactive Commodity Base Realignment and Closure (BRAC) Sites*.

2. NUREG-1575/EPA 402-R-97-016, USEPA, December 1997, *Multi-Agency Radiation Survey and Site Investigation Manual*. ***Internet http:www.epa.gov/radiation/marssim***

3. Memorandum, HQDA(DAIM-BD), 25 Mar 94, subject: *Radiologic Contamination on Base Realignment and Closure (BRAC) Installations*.

4. NUREG/CR-5512, US Nuclear Regulatory Commission, October 1992, subject: *Residual Radioactive Contamination From Decommissioning, Technical Basis for Translating Contamination Levels to Annual Effective Dose Equivalent*.

5. NUREG/CR-5849, US Nuclear Regulatory Commission, *Manual for Conducting Radiological Surveys in Support of License Termination*, June 1992.

6. *Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual*, Chapter 10, US Environmental Protection Agency, September 1989.

7. AR 385-11, *Ionizing Radiation Protection (Licensing, Control, Transport, Disposal, and Radiation Safety)*, 1 May 1980.

Relative Risk

1. DoD Relative Risk Site Evaluation Quality Assurance Plan, Office of the Deputy Under Secretary of Defense (Environmental Security), Summer 1997. **Internet http://www.dtic.mil/ envirodod/relrisk/ qapage.html**

2. *DoD Relative Risk Site Evaluation Primer*, Office of the Deputy Under Secretary of Defense (Environmental Security), Summer 1997. ***Internet: http://www.dtic.mil/envirodod/relrisk/relrisk.html***

Unexploded Ordnance

1. AR 385-64, *US Army Explosives Safety Program.* ***www.usapa.army.mil/pdffiles/r385_64.pdf.***

2. DA PAM 385-64, *US Army Explosives Safety Program.*

3. ER 385-1-92, *Safety and Occupational Health Requirements for Hazardous, Toxic, and Radioactive Waste (HTRW) Activities,* US Army Corps of Engineers.

4. EM 200-1-2, *Technical Project Planning,* US Army Corps of Engineers.

5. EP 385-1-95b, *Explosives Safety Submission,* US Army Corps of Engineers.

6. *Interim Final Management Principles for Implementing Response Actions at Closed, Transferring, and Transferred (CTT) Ranges,* DoD and EPA 2000, 7 March 2000. ***www.dtic.mil/envirodod/Policies/MMR/UXO-Mgt-Prin.htm.***

7. EPA 505-B-01-001, *Handbook on the Management of Ordnance and Explosives at Closed, Transferred, and Transferring Ranges, Draft,* Interim Final February 2002.

8. AR 385-10, *"The Army Safety Program,"* EPA, 29 February 2001. ***www.usapa.army.mil/pdffiles/r385_10.pdf.***

9. Department of Defense Explosive Safety Board (DDESB) DoD 6055.9-STD***, "DoD Ammunition and Explosives Safety Standards"***

Appendix J
Abbreviations and Acronyms

ACSIM	Assistant Chief of Staff for Installation Management
AEDB-R	Army Environmental Database-Restoration
AR	Army Regulation
ARAR	Applicable or Relevant and Appropriate Requirement
ARID	Army Range Inventory Database
ASA(I&E)	Assistant Secretary of the Army (Installations and Environment)
ATSDR	Agency for Toxic Substances and Disease Registry
BD/DR	Building Demolition and Debris Removal
BES	Budget Estimate Submission
BRAC	Base Realignment and Closure
CA	Cooperative Agreement
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CMS	Corrective Measures Study
CRP	Community Relations Plan
CTC	Cost to Complete
CWM	Chemical Warfare Materiel
DA	Department of the Army
DASA(ESOH)	Deputy Assistant Secretary of the Army for Environment, Safety and Occupational Health
DD	Decision Document
DDESB	Department of Defense Explosives Safety Board
DEH	Directorate of Engineering and Housing
DEP	Director of Environmental Programs
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
DODI	Department of Defense Instruction
DOE	Department of Energy
DOJ	Department of Justice
DPW	Directorate of Public Works
DMM	Discarded Military Munitions
DPG	Defense Planning Guidance

DSERTS	Defense Site Environmental Restoration Tracking System
DSMOA	Defense and State Memoranda of Agreement
DUSD(I&E)	Deputy Under Secretary of Defense, Installations and Environment
EBS	Environmental Baseline Survey
EC	Engineering Controls
EPAS	Environmental Performance Assessment System
EE/CA	Engineering Evaluation and Cost Analysis
ELD	Environmental Law Division
EO	Executive Order
EOD	Explosive Ordnance Disposal
ER,A	Environmental Restoration, Army
ERIS	Environmental Information System
ERM	Environmental Restoration Manager
ERP	Environmental Restoration Program
ESA	Environmental Site Assessment
ESD	Explanation of Significant Differences
ESS	Explosive Safety Submission
FFA	Federal Facility Agreement
FFERDC	Federal Facilities Environmental Restoration Dialogue Committee
FMR	Financial Management Regulation
FOA	Field Operating Agency
FO	Field Offices
FOST	Finding of Suitability to Transfer
FS	Feasibility Study
FUDS	Formerly Used Defense Sites
FY	Fiscal Year
GWETER	Groundwater Extraction and Treatment Effectiveness Review
HQ	Headquarters
HQDA	Headquarters Department of the Army
HTRW	Hazardous, Toxic and Radiological Waste
IAG	Interagency Agreement
IAP	Installation Action Plan
IC	Institutional Controls
IGCE	Independent Government Cost Estimate
IMA	Installation Management Agency
IPR	In-Process Review

IRA	Interim Remedial Action
IRP	Installation Restoration Program
ITR	Independent Technical Review
LTM	Long-term Management
LUC	Land Use Control
MACOM	Major Army Command
MC	Munitions Constituents
MEC	Munitions and Explosives of Concern
MGFD	Munitions with Greatest Fragmentation Distance
MILCON	Military Construction
MMRP	Military Munitions Response Program
MOM	Measure of Merit
MOU	Memorandum of Understanding
MPPEH	Material Potentially Presenting an Explosive Hazard
MSD	Minimum Separation Distance
MRA	Munitions Response Area
MRS	Munitions Response Site
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NFA	No Further Action
NGB	National Guard Bureau
NDAA	National Defense Authorization Act
NPL	National Priorities List
NRI	Natural Resource Injury
O&M	Operations and Maintenance
OB	Open Burn
OD	Open Detonation
ODEP	Office of the Director of Environmental Programs
ODUSD(I&E)	Office of the Deputy Under Secretary of Defense for Installations and Environment
OTJAG	Office of The Judge Advocate General
PA/SI	Preliminary Assessment/Site Inspection
PAED	Public Access Exclusion Distance
PAM	Pamphlet
PBC	Performance-Based Contract
PC	Program Coordinator
PER	Principles of Environmental Restoration

POM	Program Objective Memorandum
POL	Petroleum, oil, and lubricants
RA	Remedial Action
RAB	Restoration Advisory Board
RA(C)	Remedial Action – Construction
RA(O)	Remedial Action (Operations)
RAC	Risk Assessment Code
RACER	Remedial Action Cost Engineering and Requirements
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RCTCS	Restoration Cost-to-Complete System
RD	Remedial Design
RI/FS	Remedial Investigation/Feasibility Study
RIP	Remedy-In-Place
RMIS	Restoration Management Information System
ROD	Record of Decision
RPM	Remedial Project Manager
RRSE	Relative Risk Site Evaluation
RSC	Regional Support Command
RSP	Render Safe Procedures
SARA	Superfund Amendments and Reauthorization Act of 1986
SB	Statement of Basis
SWMU	Solid Waste Management Unit
TEU	Technical Escort Unit
TIM	Transformation of Installation Management
TRC	Technical Review Committee
TRCA	Time Critical Removal Action
TSD	Team Separation Distances
USACE	US Army Corps of Engineers
USACHPPM	US Army Center for Health Promotion and Preventive Medicine
USAEC	US Army Environmental Center
USATCES	US Army Technical Center for Explosives Safety
USC	United States Code
USEPA	US Environmental Protection Agency
UXO	Unexploded Ordnance
www	World Wide Web

Army Defense Environmental Restoration Program:

Management Guidance for Base Realignment and Closure (BRAC) Installations

NOVEMBER 2004

Enclosure 2

PREFACE

APPENDIXES

Preface

INTRODUCTION

This management guidance supplements the roles, responsibilities, and procedures contained in Army Regulation (AR) 200-1 and the accompanying Department of the Army (DA) Pamphlet (PAM) 200-1 and provides guidance to implement the Army's Defense Environmental Restoration Program (DERP) for BRAC Installations in accordance with the Department of Defense's (DoD's) *Management Guidance for the Defense Environmental Restoration Program.* Specifically, this document implements updates to the above-listed policy documents based on recent program changes. This guidance does not address potential changes to how the Army will manage environmental aspects of the FY05 BRAC round of closures. Modified or additional guidance will be forthcoming to address new FY05 BRAC requirements.

SUMMARY OF RECENT CHANGES TO THE ARMY BRAC ENVIRONMENTAL RESTORATION PROGRAM (ERP)

- Military Munitions Response Program (MMRP)–The MMRP is now a program category of the DERP. The Army must develop and maintain an inventory of sites that have known or suspected (UXO), discarded military munitions (DMM), or munitions constituents (MC). Prior to conducting a munitions response involving munitions and explosives of concern (MEC), installations must submit (1) Explosive Safety Submissions (ESS) Chemical Safety Submissions (CSS) and/or explosive or chemical warfare material (CWM) site plans through USATCES, to the Department of Defense Explosive Safety Board (DDESB) for approval. Additionally, when an installations intends to transfer property known or suspected to contain MEC, to include property with residual explosive hazards, the installation must submit the explosives safety provisions (e.g., land use controls or explosive safety-related notices) of transfer documents (e.g., leases, deeds, findings of suitability for transfer) through USATCES to the DDESB for approval. The MMRP is a program category of the DERP as detailed in the September 2001 update of the DoD *Management Guidance for the Defense Environmental Restoration Program.* See Section 2.3.

- Transformation of Installation Management (TIM)–With the elimination of Major Army Commands (MACOMs) in the installation management

process, the environmental chain of command has been significantly altered. See Section 3.1 and Appendices B and C.

- Army Cleanup Strategy and Strategic Plan - In 2003, the Army identified program goals in its Army Cleanup Strategy and corresponding Strategic Plan. The primary goals are to identify common objectives for creating consistency and accountability across the Army's cleanup program and to provide direction to implement a cost efficient program. See Section 4.1 and Appendix H.

- Army Environmental Database-Restoration (AEDB-R) - The AEDB-R has replaced the Defense Site Environmental Restoration Tracking System (DSERTS) and the Restoration Cost-to-Complete System (RCTCS), as the primary database of installations and their cleanup sites currently under the Army DERP, including MMRP category sites. See Section 4.2.3.

- Cost-to-Complete (CTC) Auditability – Estimates must be fully auditable; Remedial Action Cost Engineering and Requirements (RACER) is the required system to develop CTC estimates while investigations are underway; and installation personnel must complete mandatory RACER training. See Section 4.2.5.

- Records of Decision (ROD)/Decision Document (DD) Approval – The Chief, BRAC Field Offices (FO) will approve installation RODs/DD of $2 million or less. The Chief, ACSIM BRAC Division will approve all RODs/DD of between $2 million and $10 million. All RODs/DD over $10 million will be submitted through the BRAC Field Office to the BRAC Division in the Office, Assistant Chief of Staff for Installation Management (ACSIM) for approval. See Section 6.1.4

- Environmental Restoration Information System (ERIS) and Electronic Data Storage – In 1999, the ACSIM directed centralized storage of all environmental restoration data. All BRAC installations must either use the ERIS or document how there are meeting requirements by other means. See Section 6.2.3.

- Performance-Based Contracting (PBC) - The Army staff and USAEC are playing a key role in establishing a formalized PBC approach to cleanup at active Army installations. Focusing on results instead of the cleanup process, PBC allows the Army to buy environmental cleanups for a fixed price and at a set schedule and will allow the Army to reduce out-year long-term management (LTM) and Operations and Maintenance (O&M) costs. Private remediation firms have the flexibility to conduct environmental cleanups in a manner that is cost effective for their company while ensuring that legal requirements are met and required milestones are achieved. The Army maintains oversight of the cleanup and determines,

in consultation with the regulators, the desired outcome. See Section 6.5.4.

- Land Use Controls (LUCs) – The Army will document LUCs in RODs/DDs, stating only broad objectives, not specific installation implementation actions. Installations will state the LUC, its remedial action (RA) objective(s), and any critical LUC commitments. Implementation details will be documented in the Remedial Design (RD) Phase. LUCs will be a component of the remedy for munitions responses at a MRS. See Section 6.11.

- Five-Year Reviews – The USAEC prepares an annual list of installations requiring Five-Year Reviews. The ACSIM BRAC Division will set the installations' five-year review schedule for in the next FY. The US Army Corps of Engineers (USACE) Hazardous, Toxic and Radiological Waste (HTRW) Center of Expertise will execute all Comprehensive Environmental Response Compensation and Liability Act (CERCLA) five-year reviews at National Priorities List (NPL) and non-NPL installations being funded by BRAC, ER; the only exception will be at those installations that have instituted a PBC. For any residual explosive or environmental hazards that do not allow for unrestricted use, the Garrison Commander must ensure that the response remains protective of human health and the environment.Installation must obtain ACSIM BRAC Division concurrence before submitting reviews to regulators. See Section 6.12.

Chapter 1
Purpose and Applicability

This document provides guidance on the management and execution of the Army BRAC ERP. The BRAC ERP includes Installation Restoration Program (IRP) category responses, the newly created MMRP category responses (replaces the BRAC UXO category), the Building Demolition and Debris Removal Program (BD/DR) category responses, and eligible compliance-related cleanups at Army BRAC installations. The Army BRAC ERP is a comprehensive program to identify, investigate, and clean up contamination, to include by munitions constituent (MC), and UXO and DMM at Army installations designated for closure or realignment under the BRAC program. This document supplements the roles, responsibilities, and procedures contained in AR 200-1 and the accompanying DA PAM 200-1. It provides guidance to implement the Army's BRAC IRP, MMRP, and BD/DR requirements in accordance with the DoD's *Management Guidance for the Defense Environmental Restoration Program*.

This guidance is not applicable to Army restoration activities overseas, DERP activities at active Army installations, the Compliance-Related Cleanup Program, the Formerly Used Defense Sites (FUDS) Program, or those installations that will be cleaned up by the ACSIM BRAC Division under the Excess Property Disposal Program using Environmental Restoration, Army (ER,A) funds.

Chapter 2
Background

The DERP was formally established by Congress in 1984, and is codified at Title 10 United States Code (USC) §§2701 – 2707. The program provides for the cleanup of DoD hazardous waste sites consistent with the provisions of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA); the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR §300); and Executive Order (EO) 12580, Superfund Implementation.

SARA §211 authorizes the Secretary of Defense to carry out the DERP. The Army, Navy, Air Force, and Defense Agencies program, budget and manage BRAC funds. The Office of the Deputy Under Secretary of Defense for Installations and Environment (ODUSD (I&E)) establishes program goals and provides program management oversight. The ODUSD(I&E) establishes the DERP goals for the Army DERP in the Financial Management Regulation (FMR) (previously the Defense Planning Guidance (DPG) goals). Implementation guidance and procedures to achieve the FMR goals are provided in the DoD Management Guidance for the Defense Environmental Restoration Program.

The National Defense Authorization Act (NDAA) for FY02 (Public Law 107-107) amended the DERP by establishing a new program element for the cleanup of property known or suspected to contain UXO, DMM or MC. It requires the Army to develop and maintain an inventory of Defense Sites (referred to as munitions response sites or MRS) that are known or suspected UXO, DMM or MC at other than on operational ranges, operating manufacturing or storage facilities, and permitted demilitarization facilities).

2.1 ARMY DEFENSE ENVIRONMENTAL RESTORATION PROGRAM (DERP)

The DoD's Management *Guidance for the Defense Environmental Restoration Program* addresses three umbrella environmental restoration areas:

- Active installations.
- BRAC.
- FUDS, which are defined as real property that was under the jurisdiction of the Secretary and owned by, leased by, or otherwise possessed by the United States (including governmental entities that are the legal predecessors of DoD or its Components) and those real properties where accountability rested with DoD but where the activities at the property were conducted by contractors (i.e. government-owned, contractor-operated [GOCO] properties) that were transferred from DoD control prior to 17 October 1986. The Army is DoD's Executive Agent for this program. USACE executes this program for the Army.

The Guidance also identifies program categories to describe the types of environmental restoration activities that occur under the DERP. These program categories are:

- The Installation Restoration Program (IRP) category.
- The Military Munitions Response Program (MMRP) category.
- The Building Demolition/Debris Removal (BD/DR) program category.

To simplify and clarify the DERP, the following terms will be used in this document:

- The DERP refers to the entire DoD program as established by Congress.
- Army BRAC ERP refers to that portion of DERP relating to Army BRAC installations, including Army National Guard Bureau (NGB) and Army Reserve facilities. It does not include Active Army FUDS program, or non-BRAC excess properties. The following are categories of the Army BRAC ERP:
  - The Installation Restoration Program (IRP) category refers to environmental responses (e.g, investigation, cleanup) to hazardous substances, pollutants, contaminants, and POL at BRAC installations. See Section 2.2 below.

- The Military Munitions Response Program (MMRP) category environmental responses (e.g, investigation, cleanup) to MC. The MMRP integrates , to the extent practical, explosives safety and environmental requirements to protect public safety, human health, and the environment." See Section 2.3 below.

- The BD/DR program category refers to the demolition and removal of unsafe buildings and structures at facilities or sites. See Section 2.4 below.

When the term “Army BRAC” is used in this document the term is meant to imply that the subject is applicable to the IRP, MMRP, and BD/DR categories. When there are inherent differences between the IRP and MMRP, the terms “BRAC IRP” and “MMRP” will be used to ensure clarity.

The BRAC program is charged with closing and realigning military installations and entails military construction (MILCON), personnel relocation, environmental activities, and property transfer. Environmental requirements at realigning and closing Army installations include:

- Restoration activities (IRP and MMRP cleanups, closure related compliance).

- The National Environmental Policy Act (NEPA) property reuse and transfer documentation.

- Cultural and Natural Resource considerations.

Under environmental restoration, only three categories are eligible for funding: IRP activities, MMRP, and BD/DR. Within the DoD financial system, the “BRAC environmental line” has four funding categories:

- Environmental restoration.

- Environmental compliance.

- Planning.

- Management and support.

Compliance within the BRAC ERP refers to closure-related compliance activities only. Closure-related compliance projects are associated with facilities and buildings requiring assessments or surveys, and abatement, if required for property transfer and may include closure of hazardous waste treatment, storage, and disposal facilities; radon surveys; some types of abatement of asbestos and lead based paints; polychlorinated biphenyls cleanup; and removal and closure of some types of underground storage tanks. Environmental compliance activities not in support of reuse and property transfer or not on the closed or realigning parcel

require use of an installation's O&M funds. Compliance activities related to BRAC are not eligible under the environmental restoration category. The Army funds these as a separate line item.

2.2 BRAC ENVIRONMENTAL RESTORATION PROGRAM (ERP)

The Army BRAC ERP is a comprehensive program to identify, investigate, and clean up contaminated sites, to include MC-contaminated sites, and/or site known or suspected to contain UXO or DMM at closing and realigning Army installations. Restoration sites include those contaminated by past or closing defense activities and where a response is required by the CERCLA, as amended by SARA; the Community Environmental Response Facilitation Act (CERFA); and the Resource Conservation Recovery Act (RCRA). CERFA directs federal agencies to quickly identify uncontaminated parcels of land available for immediate reuse and transfer at all BRAC installations and allows for the transfer or lease of uncontaminated parcels.

The goal of the BRAC ERP is to protect human health and the environment by cleaning up contaminated sites as quickly as resources permit, to facilitate transfer of excess Army properties for local reuse.

Cleanup at BRAC installations includes studies, and where required, environmental cleanup of sites and reduction of risks to human health and the environment from contamination resulting from past Army activities on or emanating from the closed or realigning parcel. Eligible cleanup activities at BRAC installations are the same as those defined in the DoD Management *Guidance for the Defense Environmental Restoration Program* for the Installation Restoration Program at operating installations.

2.2.1 BRAC ERP Eligibility

The BRAC ERP is conducted under CERCLA and the process described in the NCP, 40 CFR §300, and, if applicable, consistent with the substantive requirements of the RCRA corrective action process. Identification, investigation, and cleanup of Solid Waste Management Units (SWMUs) under the RCRA corrective action process may be eligible for BRAC Cleanup funds if contamination at the SWMU resulted from past activities and the SWMU was inactive or closed prior to being subjected to RCRA requirements. The Army uses BRAC compliance funds to investigate and close an active SWMU under the RCRA corrective action process and when closure supports property transfer. The BRAC ERP also complies with state, regional, and local requirements that have been identified as Applicable or Relevant and Appropriate Requirements (ARARs) in the CERCLA ROD or DD.

Appendix D details specific activities eligible and ineligible for funding under the Army BRAC ERP.

2.2.2 BRAC Program Coordination

The Army works with federal, state, regional, and local regulatory agencies throughout a response to ensure the actions taken are protective of human health or the environment. Installations should coordinate and consult with federal, state, regional, and local regulatory agencies and Native American tribes on BRAC ERP planning and execution. Coordination should begin as early in the restoration process as possible and continue until site closeout. The Defense and State Memorandum of Agreement/Cooperative Agreement Program (DSMOA/CA) reimburses State environmental regulatory agencies for technical services provided in support of the Army's BRAC ERP. A Memorandum of Understanding (MOU) between the U.S. Environmental Protection Agency (USEPA) and the DoD allows the Army to pay the USEPA for additional technical assistance for restoration activities at installations when it accelerates cleanup in support of economic revitalization of surrounding communities. While fostering open communication between the Army and regulatory agencies, the DSMOA/CA Program and EPA/DoD MOU assist in expediting environmental restoration at Army BRAC installations. For more information on the DSMOA program, see Section 6.9.

2.2.3 Fast Track Cleanup (FTC)

The objectives of the DoD FTC Program are to protect human health and the environment, to expedite restoration activities, and to facilitate the transfer or lease of property at BRAC installations. This includes expediting the restoration process, partnering with federal and state regulatory agencies, and working with local communities and other stakeholders.

Each major closing or realigning installation where property has been identified for transfer and where significant cleanup is planned must accomplish the following key requirements of the FTC Program process:

- The Garrison Commander appoints a BRAC Environmental Coordinator (BEC) with responsibilities and implementation authority for all BRAC ERP requirements. Where a full-time BEC is not required, the Garrison Commander will designates a Fast Track Cleanup point of contact (POC).

- A BRAC Cleanup Team (BCT) is comprised of the BEC, a state environmental regulatory representative, and an USEPA representative. The BCT develops and implements the BRAC Cleanup Plan (BCP).

- The BRAC installation should complete an Environmental Baseline Survey (EBS). An EBS is the starting point to identify environmental

sites/compliance activities at the installation, specifically identifying uncontaminated property as required by CERFA and categorizing the environmental condition of all property for transferring property. The installation submits a request for approval of uncontaminated property, including the EBS, to the USEPA for NPL installations and to the state regulatory agency for non-NPL installations.

- The installation develops a BCP after the draft EBS is available and brings together the results of the "bottom up" review. The BCP is a blueprint for cleanup and identifies contaminated sites, cleanup requirements, schedules, and costs. The installation develops the BCP in coordination with regulatory agencies and public stakeholders. It is the basis for developing work plans and budget submissions and should be kept current. An updated BCP Abstract is prepared annually to summarize BCP actions and convey key program management information.

- The garrison commander forms a Restoration Advisory Board (RAB) to act as a focal point for information exchange among stakeholders and offer opportunities for the community to provide input on the restoration process. The BCT members should be the government members of the RAB.

2.2.4 National Environmental Policy Act (NEPA) Documentation

The NEPA documentation portion of the BRAC ERP requires that all closing and realigning installations consider the environmental and socioeconomic effects of disposal and reuse resulting from a BRAC action.

PL 101-510 relieves the DoD from the NEPA requirement to consider the need for closing, realigning, or transferring functions at BRAC installations. However, the DoD must still prepare environmental impact analyses during the property disposal process and during the process of relocating functions. The environmental impact analyses includes consideration of the direct and indirect environmental and socioeconomic effects of disposal and reuse and the cumulative impacts of other reasonably foreseeable actions to make military property available through the BRAC mandated closure process.

The NEPA Support Team (NST) is responsible for determining whether BRAC NEPA documents comply technically and procedurally with NEPA and applicable laws, regulations, policy, and guidance. This pertains to all BRAC NEPA actions, i.e., realignment and disposal/reuse (lease, transfer, or deed). The Mobile District, USACE, is the designated Army NST. Installations should involve the NST early to assist and advise installations throughout the NEPA process.

Refer to AR 200-2 and Appendix J for a list of references concerning NEPA requirements under the Army's BRAC ERP.*

2.2.5 Cultural/Natural Resource Considerations

BRAC installations are not exempt from applicable cultural and natural resource regulatory requirements. The cultural and natural resource portion of the BRAC ERP requires that all closing and realigning bases consider the effects of a BRAC action on man-made or natural environment resources and try to mitigate any adverse effects.

Cultural and natural resource considerations are separate from and may extend beyond the completion of the BRAC NEPA process. Requirements from associated cultural and natural resource statutes and regulations must be identified and

REFER TO AR 200-3 AND 200-4*, AND SEE APPENDIX J FOR A LIST OF REFERENCES CONCERNING CULTURAL AND NATURAL RESOURCE CONSIDERATIONS UNDER THE ARMY'S BRAC ERP.*

**AR'S 200-2,3,AND 4 ARE BEING ELIMINATED AND ALL PROVISIONS WILL BE IN THE REVISED AR200-1.*

met before BRAC actions are undertaken.

2.3 The Army Military Munitions Response Program (MMRP) Category Within Army DERP

The MMRP category has munitions responses to address UXO, DMM and/or MC at sites other than on operational ranges.

See Appendix F for a more detailed definition of MMRP terms.

Munitions response actions at BRAC installations can occur within the DERP as either IRP or MMRP category responses.

The DoD Management Guidance for the Defense Environmental Restoration Program identifies eligibility criteria for response actions to address munitions reponses.

The Army may conduct BRAC munitions responses to address MEC or MC under the MMRP category where:

- The release occurred prior to 30 September 2002; and
- The release is at a site that is not a formerly used defense site (FUDS), not an operational range, not an active munitions demilitarization facility, or

not an active waste military munitions (WMM) treatment or disposal unit that operated after 30 September 2002.

IRP Category Activities - Response activities to address UXO, DMM or MC can be conducted where:

- The release occurred prior to 30 September 2000, and
- The release is at a site that is not a FUDS, not an operational range, not an active munitions demilitarization facility, and not an active WMM treatment or disposal unit.

The Army completed its inventory of former ranges (closed, transferring and transferred) on 31 May 2003. The Army entered data collected from this inventory in the Army Range Inventory Database (ARID) and is the basis for converting eligible defense sites for the MMRP into the AEDB-R. Based on the inventory, the Army will program specific requirements for munitions response actions and CTC in subsequent Program Objective Memorandum (POM) development efforts. The USAEC is responsible for the initial conversion of MRS into AEDB-R.

The USAEC will assign sites in the MMRP a Risk Assessment Code (RAC) to assist in establishing priorities. The RAC provides uniform procedures for assessing explosives safety risks at MMRP sites.

2.4 BUILDING DEMOLITION AND DEBRIS REMOVAL PROGRAM (BD/DR)

The BD/DR program category of Army BRAC program is defined as the demolition and removal of unsafe buildings and structures at facilities or sites that are or were owned by, leased to, or otherwise possessed by the DoD. (Note: Buildings used in the production, demilitarization and/or other munitions-related operations may be contaminated with concentrations of MC that present a potential explosive hazard. The demolition of such buildings requires assessment of the risks and review by the explosive safety community.) Use of BRAC funding for BD/DR requires extensive preliminary coordination. The ACSIM BRAC Division will not normally provide funding for BD/DR unless the unsafe building or structure was unused since 17 October 1986, and where the building or structure is:

- An integral part of an IRP or MMRP category response.
- Formally authorized for funding by the DUSD (I&E).

Chapter 3
Responsibilities

3.1 Department of the Army (DA)

The Assistant Secretary of the Army (Installations and Environment) (ASA (I&E)) through the Deputy Assistant Secretary of the Army for Environment, Safety, and Occupational Health (DASA (ESOH)) provides overall policy and guidance concerning all Army environmental programs.

The Deputy Assistant Secretary of the Army (Installations and Housing) (DASA(I&H) has overall responsibility for the Army's BRAC Program, and overall policy and guidance authority concerning all Army BRAC matters with the exception of Army environmental programs.

The ACSIM has staff responsibility for the Army's environmental programs, including providing resources, guidance and authority to execute those programs.

The Installation Management Agency (IMA), as a Field Operating Agency (FOA) under the ACSIM, oversees all US Army-wide installation management, less BRAC installations.

The BRAC Division and the Office of the Director of Environmental Programs (ODEP) support the ACSIM.

The ODEP is responsible for the development Army Environmental Guidance. The ODEP reviews and provides recommendations to the ACSIM on all submissions and responses directed to the ACSIM concerning environmental policies, planning, programming, budgeting, and oversight of the Army's environmental programs and related matters. The ODEP coordinates with the BRAC Division.

ACSIM BRAC Division is the program manager and develops Army BRAC related policy, manages the Base Closure Account and distributes funds to installations and executors. The BRAC Field Offices (FO) support the BRAC Division in managing the cleanup of BRAC installations and supporting property transfer initiatives. The BRAC FO collect Work Plan requirements, staff funding requests through the BRAC Division, and monitor program execution. The BRAC FO are responsible for reporting and managing BRAC program progress.

The USAEC is a FOA of the ACSIM and supports the BRAC Division concerning the BRAC ERP. The USAEC also assists the BRAC Division in the oversight of the execution of the BRAC ERP and has assigned Environmental Restoration Managers (ERM) to serve as the technical environmental link between garrison

environmental offices and HQDA. The ERMs are responsible for BRAC technical and programmatic oversight of cleanup activities at their assigned installations. The ERMs also assist their installations and the BRAC FO with management decision-making.

The US Army Corps of Engineers (USACE) Real Estate Office is the Army's disposal agent for real estate and is involved in all BRAC property disposal and transfer activities.

The NEPA Support Team (NST) performs the NEPA compliance technical review of Army BRAC NEPA documents for the BRAC Division. See Section 2.1.5 for more information on the NST.

The United States Army Technical Center for Explosives Safety (USATCES) develops Army policies, procedures, and regulations to ensure compliance with the DoD Explosives Safety Standards (DoDD 6055.9-STD). USATCES recommends explosives safety policy for the management and cleanup of real property known or suspected to contain munitions and explosives of concern (MEC); provides technical assistance, and advise on matters related to munition responses and explosives safety to Garrison Commanders and others; reviews and provides Army approval for explosive safety submissions, chemical safety submissions, and/or explosive or chemical warfare material site plans submitted to the Department of Defense Explosives Safety Board for approval. USATCES also reviews the explosives safety provisions (e.g., land use controls or explosive safety-related notices) of transfer documents (e.g., leases, deeds, findings of suitability for transfer) for property known or suspected to contain MEC or residual explosive hazards that, per DoDD 6055.9-STD, must be submitted to the DDESB for review and approval prior to the transfer.

The Garrison Commander, or other designated authority when there is no Garrison Commander, is responsible for executing the BRAC ERP at his/her installation. Installations are responsible for tasking their BRAC Executor(s); coordinating with the USAEC, IMA and BRAC FO POCs; and coordinating regulatory and community involvement and for ensuring compliance with DoD policies, to include explosive safety policies, and applicable federal and state laws and regulations.

The BRAC Transition Coordinator (BTC) is a position created by the President's five-part program for major BRAC installations. These coordinators are located on-site at certain installations selected for closure or major realignment. The BTCs act as a liaison between the installation and the local community in such areas as community outreach, environmental cleanup, federal assistance programs, planning, and property disposal.

The FTC Program created the BRAC Environmental Coordinator (BEC) position to function as the coordinator of the numerous BRAC environmental activities that center on the interaction between the Army, the EPA, the state, and the local

community. Nominated by the Garrison Commander and ultimately approved by the ACSIM BRAC Division, the BEC is responsible for maintaining contact with the installation BRAC and environmental offices, and keeping the BTC informed of environmental activities. The BEC has overall responsibility for environmental programs related to the transfer of real property at an installation. The BEC coordinates closely with the BRAC Division and the USAEC.

The Fast Track Coordinator Point of Contact (POC) is a position created by the Army where a full-time BEC is not required (see DA Pam 200-1, Section 11-6d). The nomination and approval is the same as for the BEC.

The BRAC Cleanup Team (BCT) is the key element of the Fast-Track Cleanup approach to cleanup at closing and realigning bases. A BCT includes an Army representative (the BEC), representatives of the state regulatory agency and the EPA regional office. Each closing installation where property will be made available for reuse has a BCT unless exempted by the BRAC Division. The BCT is the primary forum for addressing cleanup planning and execution issues.

The BRAC ERP Executor conducts remedial responses (identification, investigation, and cleanup of contamination) at BRAC installations under the direction of the installation. The USACE Districts and the US Army Center for Health Promotion and Preventive Medicine (USACHPPM) may also execute specific BRAC ERP projects.

The U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) provides oversight for the Agency for Toxic Substances and Disease Registry (ATSDR) activities to evaluate public health concerns. These activities include the preparation of Public Health Assessments, health consultations, health studies, responses to citizens' petitions and health education activities. The USACHPPM reviews and concurs on human health risk assessments for the Army Surgeon General and also reviews ecological risk assessments

3.2 REGULATORY AGENCIES

State regulatory agencies have established POCs for each installation. CERCLA requires that cleanup documents be coordinated with State regulators and appropriate federal agencies, such as those entities serving as Natural Resource Trustees. Installations provide state regulatory agencies access to program information (with due consideration of issues related to accuracy, national security, and other established forms of confidentiality or privilege), See Section 6.7 for additional information concerning regulatory agencies.

The USEPA is involved in all BRAC installations with property transferring outside the Army and at installations on the USEPA's National Priorities List (NPL). The Army and USEPA work together to develop cleanup schedules, sampling and analysis plans, and the appropriate Decision Documents (DD) for both removal

actions and RAs at NPL sites. Cleanup terms, document delivery and cleanup schedules are memorialized in Federal Facility Agreements (FFAs).

3.3 LOCAL COMMUNITY

Community involvement activities are an integral part of the Army's BRAC ERP. BRAC installations should seek community involvement early and throughout the cleanup process. The Army must afford the public an opportunity to review and comment on any proposed RA or non-time critical removal action at an installation.

The RAB consists of representatives of the local government and community, the Army, the USEPA, state environmental regulatory agencies, and Native American tribes. All BRAC sites that involve the transfer of property to the community must have a RAB. For all other BRAC installations, the commander should establish a RAB where there is sufficient and sustained community interest. Members provide individual views to the BCT concerning restoration activities at the installation. An installation representative and a member of the local community jointly chair a RAB.

3.4 OTHER STAKEHOLDERS

Other stakeholders are also involved in the DERP public participation and community involvement activities at various installations. These stakeholders may be members of the local communities or Native American tribes or governing bodies. In addition, federally recognized tribes may serve as Natural Resource Trustees.

The Local Redevelopment Authority (LRA) is a body established by a state or local government charged with developing a reuse plan that supports the interests of the community. The LRA is expected to provide leadership and build consensus for reuse of the installation and serves as the community's point of contact for all matters relating to reuse. The BRAC Transition Coordinator is the main interface between the LRA and the Army. For additional information on community involvement, see Section 6.8.

Chapter 4
Program Development and Management

The Army ensures program planning to implement approved closures and realignments to transfer property to local communities for economic reuse in accordance with the President's Five-Part Plan for Community Reinvestment. The FTC, part of the President's plan, outlines an approach to accelerate environmental cleanup at closing installations to prepare the property for community reuse, while ensuring that human health and the environment are protected. The Army conducts response actions at BRAC installations to remediate contamination in accordance with the goals set forth in the DoD FMR, the procedures in the DUSD (I&E) Management Guidance for DERP, and the policies in AR 200-1 and guidance in DA Pam 200-1.

4.1 Program Goals and Objectives

The DoD developed cleanup goals and objectives for active and BRAC installations and presented the goals and objectives in the FMR. The FMR cites goals that require the Army to reduce risk to protect human health and the environment as well as comply with legally enforceable agreements, orders, and laws through implementation of cost-effective response actions, while concurrently effecting timely property transfer. The current FMR establishes environmental restoration goals for installations. See Section 4.5.2.

In addition, the Army has identified BRAC program goals in its Army Cleanup Strategy and corresponding Strategic Plan. These additional goals and metrics provide direction to implement a cost efficient program.

Army Cleanup Strategy goals and metrics are detailed inAppendix H.

4.2 Program Implementation

To ensure consistency in the manner that the Army's BRAC ERP is implemented to meet the FMR goals, several documents and reports play key roles in the process. The EBS, the BCP and the BCP Abstract, the AEDB-R, the RRSE (RAC for MMRP), and the CTC, are all inter-related, require input from one another, and, in turn, provide output to each other. Each must be internally coordinated to ensure overall consistency within the Army's BRAC ERP.

4.2.1 Environmental Baseline Survey (EBS)

An EBS is a study of the environmental conditions of Army controlled properties and proposed acquisitions, focusing on hazardous substances or other regulated hazards. The Army uses the EBS to document existing environmental information related to the storage, release, treatment, or disposal of hazardous substances or petroleum products on the property. The EBS determines the presence or likely presence of a release or threatened release of any hazardous substance or petroleum product. The EBS is also used to determine whether a threat or hazard to human health or the environment is present, such as the presence of polychlorinated biphenyls (PCBs), petroleum products and their derivatives, asbestos, radon, lead-based paint, and UXO.

Army policy requires an EBS be prepared to determine the environmental condition of properties being considered for acquisition, outgrants, and disposals. Reassignments within the Army, permits, licenses, and easements do not require an EBS; however, the Army may perform an EBS if desired or when extraordinary circumstances exist. The Army uses the EBS to identify potential environmental contamination liabilities associated with the real property transactions and to support a Finding of Suitability to Transfer (FOST), a Finding of Suitability to Lease (FOSL), or an Environmental Condition of Property (ECOP).

The procedures for conducting an EBS and the EBS review process are described in DA PAM 200-1 (17 Jan 02), Chapter 15-6.

In all cases, at a minimum, the Army will conduct actions to a level necessary to protect human health, safety, and the environment for the planned use of the property. The Army uses the BRAC site-wide EBS as a multi-functional document providing required environmental data to identify CERFA parcels and to support NEPA actions. The EBS is the starting point for classifying property into the seven DoD Environmental Condition of Property (ECOP) categories and becomes the basis for the BRAC Cleanup Plan (BCP).

The DoD developed ECOP categories to identify the environmental condition of all parcels of property at BRAC installations to expedite transfer or lease of effected areas. Parcels of property are categorized during the EBS and used during development of the BCP. As cleanup occurs under the BRAC ERP, the DoD ECOP classification changes and the Army uses it by to track cleanup progress toward Defense Goals established in the FMR.

The ACSIM BRAC Division also conducts Environmental Site Assessments

Environmental Condition of Property categories are defined and described in the 1995 BRAC Cleanup Plan Guidebook:
http://www.dtic.mil/envirodod/Policies/BRAC/brac_toc.htm

(ESAs) in accordance with General Services Administration (GSA) guidelines for the disposal of real property. The purpose of conducting the ESA is to:

- Identify the recognized environmental condition of the property.
- Satisfy one of the requirements to qualify for the innocent landowner/purchaser defense under the CERCLA.
- Improve the commercial marketability of the property in the "eyes" of potential buyers by conducting a commercially accepted ESA.

For more information on Environmental Site Assessments, consult the "American Society for Testing and Material (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, designation: E 1527–00".

4.2.2 BRAC Cleanup Plan (BCP)

The BCP is the key document in the management and execution of the BRAC ERP. The BCP is a management tool that presents the entire environmental program for the installation and that the Army uses to expedite and improve environmental response actions for disposal and reuse of a BRAC installation, while protecting human health and the environment. The plan is intended to be a roadmap of environmental programs and the macro-level strategy and schedule for accelerating environmental cleanup activities. A BCP should provide the status of a BRAC installation's cleanup and compliance programs, the status of base disposal efforts, and the strategy, rationale, schedule, and costs for future execution of all environmental programs.

The installation develops a BCP after the draft EBS is available and brings together the results of the "bottom up" review. Using the EBS to support NEPA precludes the need to develop Preliminary Assessment (PA) screening documents.

For each site within the AEDB-R, the BCP documents BRAC ERP requirements, the rationale for the technical approach, and corresponding financial requirements. Prior year funding and cost estimates through the entire remedial process are included. Estimates of cost must be fully supportable, either using the RACER estimating model or an engineer estimate generated by an industry-wide accepted model (see Section 4.2.5). The BCP contains the environmental history; current AEDB-R status; contaminants, to include MC, of concern; RRSE status and/or for site known or suspected to contain MEC (or RAC); response actions taken, if any; past milestones; and any possible future response actions.

Army installations where property will be available for transfer to the community form a BCT. The BCT meets to review the process underway to clean up property, to evaluate methods, to handle problems that develop, and to discuss how to

integrate environmental cleanup priorities with reuse needs. The BCT is responsible for the preparation and implementation of the installation BCP.

The BCP is updated annually and helps the BCT to integrate reuse and restoration efforts. At the beginning of the fiscal year, the BCT should review the BCP and update information as required. The review should focus on the BCT/Project Team, the Property Disposal and Reuse Plan, the ECOP, and the BRAC ERP. The BCT may also determine that it is necessary to update the BCP, based upon this review. The installation need not reprint and recopy the entire BCP when a change is made. Changes may be tracked by "pen and ink" or by reprinting the modified page.

The BCTs should involve appropriate regulators and, when appropriate tribal governmental representatives) and stakeholders (e.g., community members of an installation's Restoration Advisory Board (RAB)) when reviewing and updating the BCP so they may participate in the planning process. The BCTs are encouraged to make the BCP available on the installation's home page on the worldwide web, if available. The BCTs should also make the BCP available in information repositories for public review. However, all BCPs must have the constrained and unconstrained site-level CTC removed prior to distribution to the public or regulators or placement in the Administrative Record or information repository. Additionally, public affairs and security reviews of the public version BCP must be conducted prior to distribution. .

If updates to the BCP occurred during the BCT's annual review, the installation must annotate changes on the BCP Abstract (i.e., Date of Last BCP Update). A statement on any community involvement during the review and update of the BCP must be included under the FTC Summary section on the BCP Abstract.

The BCP Abstract is an Executive Summary of the BCP. The abstract facilitates BCP updates, conveys key program management information, and summarizes the updated status of the installation's environmental program. The BCP Abstract is useful in focusing attention on the overlap between reuse and cleanup planning efforts. A BCP Abstract is required for every installation with a BCT and all BRAC 95 installations with a FTC POC. The Army uses the BCP Abstract to support the DoD data call requirements, IPRs, and the DERP Annual Report to Congress. The BCP Abstracts are updated in August-September and are prepared within the AEDB-R.

For more information on preparing BRAC Cleanup Plans and BRAC Cleanup Plan Abstracts, see:
http://www.dtic.mil/envirodod/Policies/BRAC/BCP_factsheet_final.pdf

4.2.3 Army Environmental Database-Restoration (AEDB-R)

The AEDB-R, formerly known as the Defense Site Environmental Restoration Tracking System (DSERTS) and the Restoration Cost-to-Complete System, is the Army database of record that includes installations and sites that are currently included in the BRAC ERP. BRAC UXO sites in DSERTS are now MRS in the AEDB-R that are addressed as MMRP category sites. The AEDB-R provides the USAEC, installations, and BECs with an automated Internet-based application to manage, track, and query data on activities conducted under the Army DERP.

The AEDB-R data are also used to meet upward reporting requirements. The AEDB-R is a source of information for the following:

- The DERP Annual Report to Congress.
- Army's Environmental Restoration Financial Liability Statement.
- Program Objective Memorandum (POM).
- President's Budget.
- Site-level CTC.
- Relative Risk Site Evaluations (RRSEs) or Risk Assessment Codes (RACs).
- BRAC ERP Work Plans.
- DoD IPRs/Measures-of-Merit (MOM).
- ACSIM BRAC Reviews and Program Review Crosswalks.
- The BCPs and Abstracts.

Installation personnel maintain a current list of all sites at the installation in AEDB-R that have "Completed," "Underway," or "Future" restoration activities. Site-level data includes Site Name/Description, Site Type, the BRAC round (BRACI, BRACIV), BRAC Program Sub-Code (Restoration, Compliance, or MMRP), and Phase/Cleanup Action status.

As part of AEDB-R, installations must perform a RRSE/RAC on all in-progress cleanup sites (i.e., all sites except "Response Complete (RC)" or "Remedy-in-Place" (RIP)). Additionally, installations must report key program-status elements in AEDB-R, such as information on BCP Abstracts such as BRAC specific information that is collected in AEDB-R including acreage, narratives, FOST, FOSL, and FOSET information, in addition to RODs/DD, Federal Facilities Agreements (FFAs), and RABs. Installations will also report on Five-Year Reviews and Land Use Controls (LUCs) through AEDB-R. The installation has the

responsibility to ensure data are consistent with the most current information. Installations are required to correct identified data gaps and inconsistencies.

The USAEC provides AEDB-R access, user manuals, Army guidance, and training to installation, BRAC FO, BRACD, ODEP and other personnel as required by new versions and policy/guidance updates. The USAEC also provides on-site assistance as requested by the installations.

The USAEC reviews all data submissions for completeness and consistency with AEDB-R data call. Any necessary revisions are coordinated through the BRAC Field Office to the installation. The USAEC consolidates data files into an Army file for submittal to ODUSD (I&E).

Within AEDB-R the definition of a site is a unique name given to a distinct area of an installation containing one or more releases or threatened releases of hazardous substances, to include MC, or known or suspected to contain UXO or DMM that are treated as a discreet entity or consolidated grouping for response purposes. Includes any building, structure, impoundment, landfill, storage container, or other site or area where a hazardous substance was or has come to be located, including formerly used defense sites (FUDS) eligible for BD/DR, or UXO or DMM are known or suspected to be present. Installations and former ranges may have more than one site. MRS are those defense sites that are known or suspected to contain UXO, DMM or MC. MRS do not include any operational ranges or facilities that are used for or were permitted for the treatment or disposal of military munitions.

For the BRAC ERP, cleanup, closure-related compliance, and MRS requiring funds must be in AEDB-R before the BRAC Division will release funds to complete any work at the site. For BRAC closure-related compliance sites, a project addressing multiple sites for a single contaminant (i.e., asbestos, lead-based paint, radon) is equivalent to a "site." RRSEs may not be required for closure-related compliance at all MRS. A RAC evaluation will be performed for all MRS that are known or suspected to contain MEC.

New sites are added to the AEDB-R if the sites are identified in an EBS. Installations put new sites in AEDB-R when it completes the PA phase (EBS equivalent) and the site requires a follow-on action. Sites with a PA phase (EBS equivalent) status of "Underway" or "Future" cannot be input to AEDB-R.

Installations update the AEDB-R on the web and submit them through the appropriate BRAC FO to USAEC twice per year as required.

The Army Range Inventory of former ranges (closed, transferring and transferred) serves as the PA for MRS. MRS added after the inventory of MRS was completed will require a completed PA and RAC.

For details on the Army Range Inventory, see
http://aec.army.mil/usaec/reporting/arid00.html

For additional information on the AEDB-R, visit the USAEC website at:

http://aec.army.mil/

The AEDB-R may be accessed at https://aerp.apgea.army.mil/ Contact the USAEC Help Desk for user account requests

The Help Desk can be reached at 410-436-1244 or DSN 584-1244 or by e-mail at usaechelpdesk@aec.apgea.army.mil

4.2.4 Relative Risk Site Evaluations (RRSE) and Risk Assessment Code (RAC)

The DoD established risk reduction as a program goal for the DERP. To accomplish the risk reduction goal, DoD adopted a risk management strategy to ensure that higher risk sites receive priority in the cleanup process. The RRSE framework is the foundation of that strategy. Due to the inherent differences between long term environmental risks and the immediate risks posed by explosives, the RAC is the framework for prioritizing the explosive safety hazards. The RAC framework identifies the potential explosives safety hazards identified at a site by assessing the risk at sites suspected to contain UXO or other explosive safety hazards. Note that USAEC is developing a new Site Prioritization Protocol that will eventually replace RAC.

The RRSE framework uses common standards and rating definitions for all Services to ensure uniform categorization DoD-wide. The RRSE site evaluation considers contaminant concentrations, migration pathways, and human and ecological receptors in groundwater, surface water, sediment, and surface soils. Evaluations of these factors at a site are combined to place the site in an overall category of "high", "medium", or "low" relative risk.

For detailed guidance on the RRSE, see the 1997 DoD Relative Risk Site Evaluation Primer and the Relative Risk Site Evaluation Quality Assurance Plan, available on the Internet at:
http://www.dtic.mil/envirodod/Policies/Cleanup/relrisk/relrisk.html.

Pending implementation of the Munitions Response Site Protocol (MRSP), the RAC has been adopted as an interim DoD-wide approach for providing a single, consistent tool for assigning to an MRS known or suspected to contain MEC a

relative priority. The Army will offer regulators and public stakeholders opportunities to participate in the RAC development process. Each MRS known or suspected to contain MEC, to include MRS where a response has been completed, shall be assigned a RAC score, as soon as possible. Until the RAC is assigned, MRS known or suspected to contain MEC will be classified as "not yet evaluated." The installation assign a RAC to a newly identified MRS that are known or suspected to contain MEC within 12 months of its identification.

The RRSE and RAC should not be used to:

- Select a remedy.
- Determine whether a response action is required.
- Substitute for a baseline risk assessment, which identifies the risks, or the health assessment, which identifies the potential health effects on the community, associated with the site.
- Determine whether a site should be classified as "RC" or "No Further Action".
- Avoid meeting legal requirements.

The Army requires a RRSE/RAC for all AEDB-R sites with ongoing cleanup activities and is performed with available site data. Using the RRSE module in AEDB-R, installations evaluate available data for each AEDB-R cleanup site. Although previously calculated RRSE data is maintained, a new RRSE calculation is not required and should not be performed at sites:

- Classified as having all RIP, even though the sites may be in Remedial Action operation (RA(O)) or LTM.
- Classified as "RC" in AEDB-R.
- That has only BD/DR requirements.
- BRAC closure-related compliance.

Installations may add sites to the AEDB-R database without information to conduct a RRSE as pending sites, but they will not be approved until the RRSE is completed and reviewed. Installations may add sites known or suspected to be contaminated by chemical agent to AEDB-R, as "Not Evaluated" when it cannot safely sample the contamination. Such site should be reported to the U.S. Army Corps of Engineers Military Munitions Center of Expertise (MM CX).. Installations with AEDB-R sites having no evaluation for relative risk must provide justification for the lack of RRSE evaluation and provide a schedule for evaluation.

Per DoD guidance and Army policy, installations are to solicit stakeholder involvement throughout the RRSE/RAC process. The BCPs, together with the RRSE, can serve as the basis for dialogue with stakeholders (local community, RABs, and regulator representatives) on sequencing work at sites.

Installations review and update RRSE/RAC data semi-annually during the April and October AEDB-R data calls. The RRSE/RAC data are provided to the ODUSD(I&E) at mid-year and at the end of the fiscal year. DoD uses relative risk data to measure progress, show risk reduction and potentially adjust program goals at the semi-annual DoD IPRs. Certain sites may have a RAC score to address potential explosive hazards and a RRSE to address any environmental risk posed by contamination, to include MC, at the site.

For detailed guidance on the RAC, see the September 2001, Management Guidance for the Defense Environmental Restoration Program. Available on the Internet at ***http://www.dtic.mil/envirodod/envdocs.html.***

4.2.5 Cost-to-Complete (CTC)

The CTC estimate for environmental restoration projects is an important planning tool in the budget process. HQDA uses the CTC estimates to support the financial liability statement, to support POM submissions, develop the annual President's budget, and track cost avoidance measures implemented by Army installations.

Since 1990, several federal financial acts added new requirements for DoD and the Army to accurately report environmental liabilities. The purpose of these acts was to improve general and financial management practices in the federal government. Agencies are required to develop multi-year strategic plans, annual performance plans, and annual performance reports. In addition, federal agencies must produce annual auditable financial statements and accurate cost and performance information, as well as to integrate budget, accounting, and program data. In summary, these statutes require the DoD and the Army to develop auditable financial statements that report both assets and liabilities. A liability is defined as a probable and estimable future outflow of resources due to a past government transaction or event.

Liability disclosure includes having complete, formal, and auditable documentation of all data, models, and other information used to develop the estimate of the environmental restoration liability. CTC estimates and the funding levels in the annual financial statements for environmental restoration must be consistent with each other. Further, these funding levels must be consistent in any reports provided to outside entities, such as in the DERP Annual Report to Congress.

CTC estimates form the basis of the environmental liabilities reported in the Army's Annual Financial Statements in compliance with the Chief Finance Offi-

cers Act of 1990. In addition, CTC estimates must comply with DoD FMR 7000.14-R, Volume 4, Chapter 14, Accrued Environmental Restoration (Cleanup) Liabilities (October 1999). This regulation requires documentation of data sources, methods of estimation and documentation of management review of CTC estimates. The FMR 7000.14-R, Section 140105, stipulates that CTC estimates are subject to audit. Therefore, information used to develop CTC estimates for the environmental restoration programs is subject to audit by the US Army Audit Agency and the DoD Inspector General.

4.2.5.1 CTC ESTIMATES

Installations shall prepare annual CTC estimates for each site in the AEDB-R. These estimates shall reflect the environmental restoration strategy and sequence as presented in the IAP for the site and any changes that occurred since the last report.

Installations shall prepare a CTC estimate only when there is sufficient site-specific data to make a "probable" estimate without making unsubstantiated assumptions. If a site-specific CTC estimate is not prepared, installations shall document the rationale for not doing so, describe their plan of action and milestones for gathering sufficient site-specific information to develop an estimate, and forward that information with the rest of the installation's CTC data. Installations shall ensure the reliability and completeness of the data used to calculate their CTC estimates. Installations are required to ensure that these data sets are complete, up-to-date, and documented in a manner that will withstand an audit.

CTC estimates shall include, on a current cost basis (not adjusted for inflation), all anticipated costs required to effectively restore the site, as well as the costs of complying with applicable legal and regulatory requirements. This requires that CTC estimates:

- Be site-specific.
- Consider future land use of the site.
- Be based on currently available technologies.
- Include the cost of completing all remaining studies, restoration, removal, or RA (including O&M of remedial systems).
- Include costs in the LTM phase, to include all five-year review costs, costs for management and monitoring of LUCs applied to sites where cleanup to an unrestricted use can not be attained, costs of decommissioning treatment systems and abandoning monitoring and extraction wells. Prior to completion of removal or remedial action requirements, long-term CTC estimates shall be adjusted annually, through indexing, to maintain them on a current cost basis.

- Include costs associated with deletion from the NPL, where appropriate.

CTC estimates shall document environmental restoration cost information, to include identifying:

- The source of requirements (e.g., applicable laws and regulations).
- Methods for assigning estimated total environmental restoration costs to current operating periods.
- Material changes in the total estimated costs of environmental restoration activities (e.g., due to changes in laws, technology, plans) and the portion of the change in estimate that relates to prior period operations. A material change is defined as evidence that a change of more than 10 percent of the prior year ending balance (up or down) will occur.
- Material changes (i.e., when there is evidence that a change of more than 10 percent of the prior year ending balance (up or down) will occur) in the total estimated costs of environmental restoration activities (e.g., due to changes in laws, technology, plans) and the portion of the change in estimate that relates to prior period operations.
- The nature of estimates and the disclosure of information regarding possible changes due to inflation, deflation, technology, or applicable laws and regulations.

CTC estimates should include all anticipated future costs, including LTM where necessary. In the event the number of years required for LTM is undetermined, as may be the case for certain classes of sites, such as landfills, the years should be based on past similar sites. LTM for CTC estimates should not exceed 30 years. In addition, CTC estimates should include all project management (e.g., USACE costs, owner costs) and contingency costs (e.g., risk) associated with the environmental restoration of the site. Legal, regulatory, and administrative costs associated with Site Closeout should also be included in CTC estimates.

CTC estimates shall not include the costs of environmental compliance cleanup not related to the BRAC ERP, pollution prevention, conservation activities, contamination or spills associated with current operations, or treaty obligations, all of which are accounted for as part of ongoing operations. Similarly, expenses associated with the operation, management, or sustaining operational ranges are not included as environmental restoration liabilities.

Closure-related compliance and MMRP AEDB-R “sites”/projects also require a CTC estimate and are included in the CTC database.

4.2.5.2 COMPUTER MODELS

In FY02, the Army began using the RACER model to develop CTC estimates for sites without a Feasibility Study (FS). The RACER is a cost-estimating tool that estimates costs for all phases of remediation: Interim Actions/Interim Measures, studies (Preliminary Assessment/Site Investigation (PA/SI), Remedial Investigations/Feasibility Studies (RI/FS), RCRA Facility Investigations/Corrective Measures Studies (RFI/CMS)), RD, RA (including operation and maintenance), and site work and utilities. The engineering solutions within RACER are based on data from government and industry, construction management agencies, technology contractors and vendors, and historical project information.

During the development of a ROD/DD, other auditable cost estimating models may be used based on site-specific data. If installations use another computerized model to calculate CTC estimates, they shall ensure that the computer model used for this purpose is verified, validated, and accredited per DoD Instruction (DoDI) 5000.61 - *DoD Modeling and Simulation Verification, Validation, and Accreditation (VV&A).* Some estimates cannot be developed using a computer model because some environmental restoration actions are truly site-specific and unique to a particular set of contaminants for which no computer model may exist. In these instances, estimates must, by necessity, be developed based on engineering studies or estimates. Installations will fully document estimates developed based on engineering studies or estimates, other methods, or computer models not validated per DoDI 5000.61. The information submitted to the USAEC for inclusion in the annual financial statement shall be annotated accordingly.

4.2.5.3 CTC REVISIONS

Installations shall revise CTC estimates when a "material change" occurs. Such a change must be fully documented and the IAP for the site revised to reflect this change. The installation shall forward the revised estimate to the appropriate BRAC Field Office for concurrence and then to the USAEC for incorporation into the Army-wide annual financial statements. The installation must disclose the nature of a material change in the liability from year to year. Reasons for such a change may include level-of-effort, inflation, and new regulatory requirements. Other reasons may include delays in implementation due to events such as legal action, natural disaster, or adverse weather.

The BRAC program uses the BRAC Optimization Model to determine allocations down to the site/phase level in AEDB-R (see Section 4.4.3.2). The BRAC FO review the model output and make changes/updates. In June of each year, the installations will be advised of their Annual Funding Plan for the next fiscal year as well as each year through the POM years (FY+5) or until there are no requirements (whichever is less). The BRAC Division notifies installations of their annual environmental allocations in June and must then "program" their CTC estimates in the fall AEDB-R data call to meet their allocations. Installations submit their total programmed cleanup requirement by sites to the USAEC

For more information on CTC, see "Developing Cost-to-Complete Estimates & Financial Reporting of Environmental Restoration Liabilities for the US Army Environmental Restoration Program", January 2002.

through AEDB-R in October. The BRAC Division uses these requirements to develop the BRAC budget and to report the Army environmental liabilities.

4.2.5.4 CTC AUDITS

Environmental restoration estimates for both the CTC and environmental liability reporting in an annual financial statement are subject to audit. The financial management regulations emphasize that financial records, to include CTC estimates, must have audit trails to allow transactions to be traced from the point of initiation to the final report. A fundamental requirement of a good audit trail is that pertinent documents and source records adequately support all transactions. The source document shall include a narrative providing sufficient explanation for the basis of the estimate, the date prepared, the preparer's name, and supervisor's signature. Original estimates and changes in those estimates shall be documented and available for review. Documentation must exist at the time of an audit.

When contractors must develop a cost estimation for a removal or remedial action, the contract Statement (or Scope) of Work should identify these requirements. The contractor's cost estimation may be subject to audits, thus the contractor must be able to justify the process.

Installations shall include an evaluation of environmental liability disclosure practices as a part of any installation-specific environmental self-auditing programs, such as the Army's Environmental Compliance Assessment System (ECAS).

The ACSIM has directed that the USAEC will institute field audits to verify supporting documentation to the requirements identified for CTC. The USAEC conducts CTC reviews at selected Army BRAC sites. The USAEC will use the following protocol to determine sites selected for review:

- Sites with deficiencies identified during previous audits.
- Sites with RA costs greater than $5 million scheduled for execution in the current or next fiscal year.
- Sites where cleanup versus study phase estimates are disproportionate (e.g., large study cost with small cleanup costs, design costs with no associated cleanup costs, design costs greater that 40 percent of the associated cleanup costs).
- Sites where there is a material change in the financial liability. A material change is defined as evidence that a change of more than 10 percent of the prior year ending balance (up or down) will occur.

4.2.5.5 CTC TRAINING

The USAEC has developed a formal training program to certify installation staff engaged in the preparation of CTC estimates, to include CTC estimates for munitions responses. Installations must schedule formal training programs (e.g., introductory training, recurring "refresher" training) for staff personnel engaged in the development of CTC estimates or preparation of environmental restoration liability reports. Installations shall document that staff received this training and maintain a record as a part of the audit trail for the annual financial statement.

Installations shall update their CTC data in the spring of each year. Updates are due to the USAEC in May. CTC updates for all sites must reflect an installation's total cleanup requirements.

4.3 BUDGETING

Budgets are determined based on several factors. The Defense goals and the following are taken into consideration:

- Property transfer.
- Program initiatives.
- Statutory and legal requirements, including agreements with regulatory agencies.
- The ability to execute cleanup projects in a given year and the feasibility of carrying out the activity in relation to other activities at the installation.
- Cultural, social, and economic factors, including environmental justice considerations.
- Short-term and long-term ecological effects and environmental impacts in general, including injury to natural resources and lost use.
- Acceptability of the action to regulators, Native American tribes, and public stakeholders.
- Availability of new and innovative technologies that are appropriate for use given site conditions.
- Actual and anticipated funding availability.

The BRAC Division develops budgets after running the BRAC Optimization Model and providing the model output to the installations for use during the IAP Workshop and subsequent AEDB-R programming during August of each year.

The BRAC Division consolidates the programmed requirements and utilizes this information for financial reporting such as the Financial Liabilities Statement, the President's Budget, the Annual Report to Congress, the Program Objective Memorandum (POM) and the Budget Estimate Submission (BES).

The BRAC Division develops the Army BRAC,ER budget by consolidating installation requirements as programmed in the AEDB-R database, Fall submission. As DERP activities progress to meet program goals, the budgets are adjusted based on the updated CTC database.

4.4 FUNDING BRAC ACTIVITIES

The BRAC funding is maintained in the Office of the Secretary of Defense, Military Construction Appropriation (MILCON) and is comprised of five budget activities:

- Construction.
- Family Housing.
- Operations and Maintenance.
- Procurement.
- Environmental.

The Army funds environmental requirements at BRAC installations through two different accounts:

- The BRAC Account (BCA) that includes all BRAC cleanup, MMRP, and closure related compliance; site specific EBS (FOST/FOSL); and Cultural and Natural Resources, environmental planning, and management costs
- Operations and Maintenance, Army (OMA) Account that includes NEPA at BRAC sites and program management or activities not attributable to realignment/closure that benefits the entire program.

MILCON, and, therefore, BCA, funding is a five-year account. Specific amounts are not appropriated for each budget activity and funds can be shifted among all BRAC requirements

4.4.1 Funding Categories

There are nine BRAC ERP categories of accounts addressing environmental activities:

- Program Management. Program management includes salaries, travel, supplies, legal support, public involvement support, RAB administrative costs, and Technical Assistance for Public Participation (TAPP) costs. The BCA may fund public involvement activities related to restoration activities, such as the Community Relations Plan (CRP), CRP implementation, public meetings, and fact sheets. The TAPP program provides community members of RABs/TRCs with access to independent technical support using government purchase orders. Installations submit individual RAB/TAPP Cost Worksheets when identifying program management costs for the upcoming fiscal year.

- Cleanup Projects. Projects include: costs tracked by AEDB-R site, IRP and MMRP category response costs to execute remedial responses such as studies, removals, interim and final RAs, and LTM costs at cleanup sites. Contract administration costs (both prior and current year), in-house support, and any costs associated with execution of BRAC ERP activities tracked by site are also project costs.

- DSMOA/CA. Funds include support to the DSMOA/CA program for state regulatory BRAC ERP services at Army installations. The USACE is the DoD Lead Agent for the DSMOA/CA. States propose DSMOA/CA eligible requirements for reimbursement to the Army through the USACE. See Section 6.9 for more information on DSMOA/CA.

- ATSDR. The USACHPPM is the Army's liaison and DoD's Lead Agent for the ATSDR program. As the Lead Agent, USACHPPM reports on the status of the ATSDR program at the DoD IPRs. The USACHPPM provides the USAEC with the ATSDR draft Annual Plan of Work in Jun of each year. The USAEC reviews the proposed ATSDR budget for consistency with the approved BRAC Work Plan and eligibility for reimbursement. The USACHPPM provides installations with a schedule for site visits and document delivery by quarter. The USACHPPM will contact all installations prior to ATSDR activities at their installation.

- USEPA Support. Funds include support to the USEPA for participation on BCT to expedite restoration activities in accordance with the President's Five-Part Plan for Community Reinvestment. The USEPA proposes eligible support requirements to BRAC Division for reimbursement.

- Cultural and Natural Resources. Referred to as planning requirements, cultural and natural resource requirements ensure that base closures and realignments do not destroy significant parts of the nation's heritage, both man-made and the natural environment.

- NEPA Documentation. Referred to as planning requirements, NEPA requirements document impacts, irreversible effects and alternatives to BRAC environmental actions that significantly affect the quality of the human environment.

The Army funds closure-related environmental compliance cleanup projects from a different category than the BRAC ERP category but are part of the BRAC environmental line in the budget. Projects include costs to execute remedial responses such as studies, removals, interim and final RAs, and LTM of closure-related compliance projects that support property transfer. Contract administration costs (both prior and current year), USACE Division or District in-house support, and any costs associated with execution of BRAC ERP activities are also project costs.

4.4.2 BRAC Work Plan

The BRAC Work Plan is developed from AEDB-R site level. The installations identify their BRAC ERP funding requirements for a particular year in the BRAC Work Plan. The BRAC Work Plan is a prioritized listing of the Army's total BRAC ERP requirements listed by installation. The Army uses the BRAC Work Plan to track execution of the BRAC ERP. The BRAC Work Plan includes cleanup, closure-related compliance, and MMRP projects. The BRAC Work Plan also includes the proposed obligation of funds by month.

4.4.2.1 Preparation of the BRAC Work Plan

The BRAC Division prepares the BRAC Work Plan for the current year and the program year (FY+1). The Army uses BRAC Optimization Model to prioritize BRAC program requirements.

Installations are required to provide input to the BRAC Work Plans prior to the BRAC Work Plan Reviews held in January and June of each year.

4.4.2.2 Additions to the BRAC Work Plan

When unforeseen issues arise that take precedence over approved line items on the BRAC Work Plan, an installation identifies new requirements to be added to the work plan and identifies a bill-payer from their approved program to fund the new requirement to the BRAC FO and BRAC Division. Installations are responsible for ensuring that any new requirements executed by USACE are fully coordinated with the executing Corps District and HQUSACE. If an Army Management Structure (AMS) code does not exist for a project, the BRAC Division must provide the new AMS code and title. The BRAC Division will ensure that new codes are entered into the DFAS-IN Pamphlet 37-100-XXXX (where XXXX represents the FY) at which time funds can be distributed.

4.4.2.3 BRAC Work Plan Reviews

The BRAC Division holds meetings semi-annually, in January and June, with the BRAC FO and installations to review execution of the BRAC ERP and discuss BRAC ERP issues. At these reviews, the installations brief the BRAC Division on their progress in obligating current year Work Plans and any changes to the BRAC Work Plan. Requirements for the next two years are also collected, revised, and presented,

4.4.3 Priority Setting and Sequencing

This section discusses the establishment of priorities and the sequencing of BRAC ERP work during a given fiscal year.

4.4.3.1 PROGRAM PRIORITIES

The BRAC Division accomplishes prioritization and sequencing of BRAC ERP activities to meet the FMR goals using:

- Imminent threat to human health and the environment.
- Beneficial reuse.
- Legally enforceable requirements.
- Relative risk.
- Earlier funding decisions.
- Other management factors.

Factors other than reuse and risk to human health and the environment may influence the sequencing of work at sites and the site's priority for funding. Other management factors include:

- Program goals and initiatives.
- Ability to execute cleanup projects in a given year and the feasibility of carrying out the activity in relation to other activities at the facility.
- Cultural, social, and economic factors, including environmental justice considerations.
- Short-term and long term ecological effects and environmental impacts in general, including damage to natural resources and lost use.
- Acceptability of the action to regulators, tribes, and public stakeholders.
- Availability of new and innovative technologies.
- Actual and anticipated funding availability.

4.4.3.2 SEQUENCING WORK

The BRAC Division has implemented the BRAC Optimization Model to assist in sequencing work. The BRAC installations annually enter CTC requirements into AEDB-R by site and by phase; requirements are then imported into the BRAC Optimization Model. The model generates a report that sequences work based on available funding levels. The BRAC Division shares the report with the BRAC FO for review and comment. The BRAC Division may run the Optimization Model several times to adjust the input and prioritization scheme. When the

BRAC Division completes the sequencing of sites, data is exported back into the AEDB-R to establish by site/by phase level budgets.

4.4.4 Funds Distribution

The BRAC funds are distributed through the BRAC FO to the installations, the USAEC, and the USACE on a semiannual basis.

Installations must use the web based BRAC Financial Module request process to request funds from the BRAC Division.

4.4.5 Tracking and Reporting

Obligations, disbursement, reimbursement, cost recovery and cost sharing are tracked and reported in the BRAC accounting process.

4.4.5.1 OBLIGATION

The BRAC Division tracks obligations through the web based BRAC Financial Module. Quarterly, BRAC Division will meet with all staff and executers to review obligations.

4.4.5.2 DISBURSEMENT

The BRAC Division coordinates with appropriate financial offices using the Defense Financial Accounting System (DFAS) to track disbursements. The BRAC Division reviews disbursements with executers at semi-annual reviews and at the Semi-Annual Work Plan Meeting.

4.4.6 Reimbursement for Non-Army Activities

While highly discouraged by DoD, an Interagency Agreement/Federal Facilities Agreement (IAG/FFA) may stipulate that the Army will reimburse other federal agencies for services associated with cleanup. These services must be those that the Army does not have the capability of providing and are incidental to cleanup.

The outside agency requesting reimbursement must submit a proposed annual budget to the installation prior to development of the upcoming fiscal year budget. The proposed annual budget is categorized into tasks developed in accordance with the scope of work contained in the agreement. The Army will only reimburse the outside agency for those specifically approved tasks.

All requests for reimbursement of services to federal agencies outside the Army are processed in accordance with the Economy Act (31 U.S.C. §1538). The Army certifies that use of funds is legal under the Economy Act. The Army approves and reimburses only those costs that directly support the Army's environmental mission and are not part of the supporting agency's Congressionally funded mis-

sion. Installations should contact their resource management and legal offices with any questions concerning the Economy Act and reimbursement of services provided by agencies outside the Army.

4.4.7 Cost Recovery and Cost Sharing

CERCLA authorizes the Army to pursue recovery of response costs of $50,000 or more from either contractors or other entities that are responsible or partly responsible for environmental damage on Army installations. As early as possible in the BRAC ERP, BRAC installations must identify CERCLA Potentially Responsible Party (PRP) and pursue them to either take responsibility for BRAC cleanups or to contribute to the cost of response actions, on a total cost recovery or contribution basis, as appropriate.

The Environmental Law Division (ELD), Office of the Judge Advocate General (OTJAG), is responsible for coordinating with the Department of Justice (DOJ) to pursue claims against such parties. The ELD Litigation Branch typically requests the installation's local counsel to prepare a litigation report regarding the proposed claims. When cost recovery or contribution claims appear to be possible, the installation, in coordination with the DOJ, will retain records and documents, and maintain all costs and project documentation necessary to support cost recovery claims against the PRPs.

Installations will report all attempts to recover response costs to the USAEC, who will inform ODUSD (I&E) through the Army Staff and Army Secretariat. If an installation decides that it is not in the best interest of the government to pursue a cost recovery, the installation will inform the USAEC and the ODUSD (I&E) of its rationale.

Installations must report the following cost recovery and cost sharing information, which will be included in the DERP Annual Report to Congress:

- Installation name.
- City (or county if appropriate) and state where the installation is located.
- Type of Action (Cost Recovery or Cost Sharing).
- Status of cost recovery actions.
- Investigate status of recovery actions deemed sufficient to pursue.
- Cost recovery reported in a previous annual report that has since been determined not to benefit the government. The installation shall report the status as "Not Feasible" or "No Cost to be Recovered" and provide a brief but complete explanation for the decision.

- Total amount recovered or shared with another PRP or amount recovered from a negligent DoD contractor, as of the end of the reported fiscal year.
- Where the Army initiated recovery actions and recovered some costs, the total amount recovered as of the end of the reported fiscal year. If recovery actions are underway and no costs were recovered by the end of the reported fiscal year, installations shall report $0 recovered.
- Total costs spent in legal and management costs to pursue recovery, as of the end of the reported fiscal year.
- Where recovery actions are underway or completed, the cost to pursue the action as of the end of the reported fiscal year.
- Where the cost to pursue the action has not been determined but will be determined later, "TBD."

4.5 EXECUTION STRATEGY

The DoD and the Army have established four goals for the BRAC ERP that must be met during program execution.

4.5.1 Obligation Goals

The DoD goal for obligation of funds is 28 percent by first quarter, 55 percent by second quarter, 80 percent by third quarter, and 100 percent by fourth quarter of each fiscal year.

4.5.2 Financial Management Regulation (FMR) Goals

- The Army must meet the goals cited in the FMR. The FMR requires that, by the end of FY2005, 100 percent of the acres in BRAC categories 5, 6, and 7 identified in the end-of-FY 96 baseline will be environmentally suitable for transfer and 100 percent of installations will have all sites with remedial systems in place or responses complete.

More information on FMR goals is available on the Internet at
http://www.dod.mil/comptroller/fmr/02b/Chapter13.pdf

4.5.3 Army Cleanup Strategy Goals for BRAC

In 2003, the Army identified program goals in its Cleanup Strategy and corresponding Strategic Plan. The primary goals are to identify common objectives for

See Appendix H for a detailed explanation of BRAC ERP goals.

creating consistency and accountability across the Army's cleanup program and to provide direction to implement a cost effective program.

4.5.4 Disbursement Goals

To ensure that all BRAC ERP funds are disbursed in a timely fashion, the following goals have been established by DoD:

Year of obligation		Cumulative disbursement of funds
Initial year	22%	22%
Second year	45%	67%
Third year	22%	89%
Fourth year	6%	95%
Fifth year	5%	100%

4.5.5 Program Management Goals

The Army's execution goal is to limit total Army program management funds to 10 percent of the BRAC budget.

4.6 PERFORMANCE MEASURES

The DoD and the Army have established Work Plan Reviews, ESOH Management Review, and Measures of Merit (MOMs) as performance measures for the BRAC ERP. The Army evaluates its performance annually and reports its BRAC ERP accomplishments to DoD to for inclusion in the DERP Annual Report to Congress.

4.6.1 Work Plan Review

The BRAC Division and the USAEC will hold meetings with the installations to review execution of the BRAC ERP and discuss issues on a semi-annual basis. The BRAC Division sends a memorandum detailing specific requirements of the Work Plan meeting to the field 30 days prior to the meeting. At these reviews, the installations will brief BRAC Division and the USAEC of its progress towards obligation of their Annual Funding Plan and any additions to the BRAC Work Plan.

4.6.2 DoD Management Review

The ODUSD (I&E) requires that the Army monitor program progress and report semi-annually in June and December/January of each year. The Army uses BCPs

and BCP Abstracts, AEDB-R data, RRSE data, budget data, and CTC information to report DERP status in support of the Army BRAC ERP.

4.6.3 Measures of Merit (MOMs)

The MOMs are the tools used by ODUSD (I&E) to measure the Army's progress toward goals set forth in its planning guidance, the DPG. There are four MOMs for BRAC environmental cleanup that the Army reports to OSUSD (I&E) semi-annually at the IPR.

- Relative Risk Reduction - This MOM tracks both site counts and funding for each relative risk category. The desired trend is toward a lower number of sites in the "High" relative risk category.

- Phase Progress - This MOM tracks the number of sites in study, cleanup, and RC/no further action required categories. Progress is indicated as sites go from the investigation phase and cleanup phase to the RCor no further action required categories. The desired trend is toward an increasing number of sites going from investigation to cleanup to closeout.

- Installations Achieving Final Remedy-In-Place/RC - This MOM tracks the number of installations that have all sites in the "Remedy-in-Place" or "RC" categories. The desired trend is toward an increasing number of sites in the "Remedy-in-Place" and "RC" categories.

- Acres suitable for transfer under CERCLA - This MOM tracks the number of acres based on the environmental condition of property (ECOP) categories 1-7 defined and described in the BRAC Cleanup Plan Guidebook. The desired trend is for the number of acres in categories 2 through 4 to increase over time as properties are remediated or remedies are in-place and are operating properly and successfully. All category 5, 6, 7 acres should be categories 2 through 4 by the end of FY2005.

Until MOMs have been developed for the MMRP, the Army will track the performance of MRS separately from IRP sites, but will use the same MOM criteria as the IRP: Risk Reduction, Phase Progress, Milestones Accomplished, and Installations Achieving Final Remedy-in-Place.

4.6.4 Army Cleanup Strategic Plan Goals

In 2003, the Army implemented a new Cleanup Strategy and identified program goals in its corresponding Cleanup Strategic Plan. The primary goals are to identify common objectives for creating consistency and accountability across the Army's cleanup program and to provide direction to implement a cost effective program.

See Appendix H for a detailed explanation of Army Cleanup Strategic Plan Goals for BRAC

4.6.5 DERP Annual Report to Congress

The Congress requires DoD to submit an annual Report to Congress that describes the DERP accomplishments during the previous fiscal year. The report details progress made in carrying out environmental restoration activities at military installations, including success stories highlighting significant DERP activities and initiatives; narrative summaries for NPL installations, proposed NPL installations, and major BRAC installations; and the status of the cleanup. At the end of each FY, the USAEC requests that installations submit success story candidates and provide information for narrative summaries.

The AEDB-R Fall Data submission is a critical source of information for the Report to Congress. Therefore, installations should ensure that the AEDB-R data is updated and submitted as required. Updates begin in August/September of each year. The USAEC then compiles and submits the Army's input to DoD. The DoD must then submit the report to Congress by 31 March of each year.

The DERP Annual Report to Congress is available on the DoD internet home page at ***http://www.dtic.mil/DERP/DERP.htm.***

4.7 PROGRAM TIMELINES

- Oct
  - Report to Congress Draft Narratives
  - AEDB-R fall data submission including programmed CTC requirements
  - Financed Liabilities Report Due
  - Closeout Obligation Plan for prior FY due
- Nov
  - Fall AEDB-R forwarded to thru ODEP/ESOH to DoD
  - Semi-Annual BCP Abstract submission
  - Report to Congress Success Stories and Narratives submitted
  - Army Management Review
- Dec
  - ESOH Management Review
- Jan
  - BRAC Work Plan Review Meeting
  - President's Budget submitted
- Feb
  - AEDB-R spring data call begins
  - Begin update of CTC requirements
  - Begin POM process
  - Begin update of CTC requirements
  - BECs contact SPMs for DSMOA
- Mar 31
  - Annual DERP Report to Congress submitted by DoD

- Apr — AEDB-R spring data submission
  CTC requirements due to USAEC
- May — Run BRAC Optimization Model
  Spring AEDB-R forwarded thru ODEP/ESOH to DoD
- June — BRAC Work Plan Review Meeting
  Army Management Review
  ESOH Management Review
  Draft FY+1 Work Plan
  POM submission
- July — Second Run of BRAC Optimization Model
- Aug — Results of BRAC Optimization Model imported into AEDB-R
  AEDB-R fall data call begins
  Final FY+1 Work Plan
- Sept — Installations match phase schedules to the BRAC Optimization Model program
  Report to Congress Success Stories and Narratives Submitted

Chapter 5
Program Execution

The BRAC installation executes the BRAC ERP. The Garrison Commander, or other designated authority where there is no Garrison Commander, is accountable for the installation's BRAC ERP. The BEC, BCT, the designated executor of Army restoration projects, the USAEC, and the BRAC Division all play a role in the execution of the Army's BRAC ERP.

5.1 INSTALLATION

The Garrison Commander is responsible for execution of the restoration program. Where there is no Garrison Commander at a BRAC installation, the BRAC Division designates an alternate authority. For NGB BRAC ERP activities, the NGB may act as the installation and becomes responsible for environmental reporting.

The Garrison Commander (or other designated authority), in coordination with the BRAC Division, assigns a BEC to ensure all work is accomplished in accordance with regulatory, DoD, and Army policy. If the BRAC Division determines a full-time BEC is not required, a FTC POC is appointed. The BEC/FTC POC is the installation's primary restoration point of contact with the installation BCT, BTC, the program executor, ATSDR, USACHPPM, USAEC, BRAC Division, and the public. The Garrison Commander or a designee will also approve all required ESS, CSS and/or explosive or CWM site plans being submitted, through USATCES, to the DDESB for approval for properties for which the installation is responsible.

The BEC/FTC POC duties include:

- Work with regulators and serve as the sole point of interface with all regulators.
- Execute the environmental restoration Community Relations Program, including determining interest and, if appropriate, developing a RAB or chairing a TRC, establishing and maintaining the public repository, and administrative record.
- Prepare and submit BCPs/BCP Abstracts, AEDB-R and CTC updates, BRAC Work Plan input, appropriate Environmental Program Requirement reports, and related changes through the BRAC FO to BRAC Division and the USAEC.

- Include ATSDR recommendations from the Public Health Assessment into the BCP/BCP Abstracts.

- Implement projects, including identification of funding and reporting requirements and programs necessary BRAC ERP funds through work plans, CTC, and AEDB-R with estimates of cost and time requirements for performance of specific tasks.

- Ensure that only certified individuals who are properly trained in the RACER program develops the CTC and ensure that the CTC has a fully auditable trail.

- Select a BRAC ERP Executor to conduct environmental restoration projects.

- Assign tasks to the BRAC program executor describing the general scope of activities and provide project criteria, goals and general milestones for restoration work. Installations should obtain maximum competition when selecting project management services.

- Provide appropriate funds, in coordination with the BRAC Field Office, to the program executor for all work required. The BEC/FTC POC ensures that funds are allocated to eligible projects only. The installation or BRAC ERP Executor ensures that their resource management office account for restoration funds in accordance with DFAS-IN Manual 37-100-XXXX.

- Approve proposed schedules and deadlines for all tasks and deliverables and provides comments and approvals to the program executor on items such as scopes of work and project documents in accordance with approved schedules.

- Provide guidance to the program executor concerning all interpretations of statutes and regulations that may effect performance of a task and document any deviations from DoD or Army policy. The BEC/FTCPOC is responsible for obtaining concurrence from their MACOM of any deviations from policy and guidance.

- Coordinate with the program executor to resolve any impediment to completion of the task on or before the stated deadlines and at or below the stated costs. If the program executor fails to meet a deadline resulting in a penalty to the Army, the installation BEC/FTC POC is responsible for notifying the BRAC FO, USAEC and the BRAC Division of the penalty and any associated costs.

- Provide copies of project documents for review and comment through the BRAC FO to appropriate Army proponents of the BRAC ERP such as the USAEC, USACHPPM, and ATSDR (when appropriate).

- Provide copies of all RODs/DD for review and concurrence through the BRAC FO to USAEC and USACHPPM prior to release of funds for removal/interim/ RA contracts.

- Evaluate the executor's ability to meet schedules, communicate with the installation staff, provide quality reports, effectively use available funding resources, etc. If the executor's performance is unsatisfactory, notify the Garrison Commander or other designated authority who will contact the commander of the executing agency and attempt to resolve the issues. If the quality of performance by the executor continues to be unsatisfactory, the Garrison Commander or other designated authority may transfer execution to another performer. Appropriate notifications shall be made to the executor so that funds can be recovered and redirected to the new performer.

- Coordinate and consult with installation legal counsel on all environmental agreements; coordinate with USAEC on all agreements impacting the BRAC ERP. Installation counsel should involve the Environmental Law Division, Office of the Judge Advocate General (OTJAG)when agreements might be inconsistent with Army/DoD policy.

5.2 BRAC CLEANUP TEAM (BCT)

Under FTC, each installation making property available for transfer to the community assembles a BCT, unless the BRAC Division determines a full-time BEC is not required. In that case, a FTC POC is appointed. A BCT is not required at installations where there is no BEC.

The BEC (representing the Army), USEPA, and state environmental regulatory agency representatives make up the BCT. The BCT acts as the primary forum to address issues affecting the execution of cleanup to facilitate reuse. . BCTs, with input at the community level from stakeholders (e.g., LRAs and RABs), have the technical expertise to engage in real-time decision-making, reduce unnecessary documentation, and identify innovative ways to accomplish cleanup.

The BCT responsibilities include management of the five-step BCP process and the preparation of the installation's BCP. The BCT conducts a "bottom up" program review of the installation's environmental programs to facilitate preparation of the BCP. This team approach is designed to accelerate cleanup to make property available for transfer while ensuring protection of human health and the environment. However, the BCT does not replace the need to use the Army chain-of-command, nor can the BCT commit the Army to spend funds. It is the BEC's responsibility to work with the Garrison Commander and the BRAC Field Office on these issues. The BCT meets routinely to review the cleanup process underway, to evaluate methods, to handle problems that develop, and to discuss how to integrate environmental cleanup priorities with reuse needs.

5.3 BRAC ERP EXECUTOR

The DERP Executor conducts environmental responses at BRAC installations. The USACE and the USACHPPM may execute specific projects for the DERP.

The USACE established Hazardous, Toxic and Radiological Waste (HTRW) Design Districts for executing environmental cleanup activities and Military Munitions Center of Expertise (MM CX) Design Centers for executing munitions responses, including those of the Army BRAC ERP. The USACE District Project Manager coordinates the support of the districts and center. Each HTRW and MM CX Design District works within specific geographic boundaries. The Director of Military Programs at HQUSACE may grant approval for an installation to use a USACE District outside of the designated geographic boundary.

The BRAC ERP Executor duties are as follows:

- Assign a project manager to be the primary point of contact for the BEC/FTC POC. The project manager completes tasks under the authority and direction of the installation BEC/FTC POC.

- Provide estimates of costs and time requirements for performance of specific tasks forwarded by the installation. The estimates include in-house costs, specific contract and pricing data, and costs charged for contract supervisory and administrative services applicable to each FY for the contract administration. The project manager uses historical cost data from analytical laboratories to ensure the executor can negotiate the lowest available price.

- Propose schedules for all deliverables and accomplish all tasks within time deadlines set forth by the installation. Tasks will not be considered complete until reviews are prepared for all work performed and accepted by the installation BEC/FTC POC.

- Recognize the installation BEC/FTC POC as the sole point of interface with all environmental regulators, report any contacts by regulators immediately and attend all meetings as requested by the installation BEC/FTC POC.

- Request specific approval from the installation BEC/FTC POC before release for publication of any information gathered. The program executor will not release any information concerning the installation's restoration program without approval from the installation BEC/FTC POC.

- Use existing contracts before initiating new contracts for environmental work.

5.4 US ARMY ENVIRONMENTAL CENTER (USAEC)

The USAEC is a FOA under the direction of the ACSIM. The USAEC provides support to BRAC Division for the BRAC ERP and provides a broad range of program management and oversight services in support of the BRAC Division and installations.

5.4.1 Technical Review and Assistance

In support of the BRAC Division, the USAEC conducts the HQDA-initiated independent technical review and assistance programs (see Section 6.5). The USAEC compiles teams of independent technical experts that review specific remediation projects for installations and provide recommendations concerning the technical feasibility of the projects.

5.4.2 Restoration Oversight

The USAEC also has an oversight function for all BRAC Army installations. In addition to overseeing execution of the BRAC ERP for the BRAC Division, the USAEC provides technical assistance with AEDB-R updates and other revisions including BCP Abstracts, CTC updates, and guidance in the BRAC ERP process. The USAEC uses the BCPs/BCP Abstracts, in conjunction with the installation BRAC Work Plans, to oversee and track the progress of the BRAC ERP at each installation.

5.4.3 HQDA Support

The USAEC supports business initiatives of HQDA with site review, technical evaluation, and final selection of Performance-Based Contracting (PBC) (see Section 6.5.4).

5.4.4 Environmental Restoration Managers (ERMs)

The USAEC ERMs are responsible for the technical programmatic oversight of the BRAC ERP for installations assigned to them. The ERMs provide quality assurance on the data provided by installations for use in reporting Army requirements. All requirements must meet Army criteria for eligibility and must have RRSEs/RACs completed in accordance with current Army guidance.

The ERMs coordinate with assigned installations and the associated BRAC FO POCS prior to installation site visits and notify same of any issues that arise from the site visit. Installations will submit BRAC ERP project documents to the assigned USAEC ERMs for review. The ERMs submit copies of final Program documents to the Army's Technical Information Center, the centralized repository of all Army environmental documents located at the USAEC, Aberdeen Proving Ground, MD.

USAEC ERM duties include:

- Work as closely as possible with the installation, BEC, and BCT but maintain Army perspective and objectivity.
- Assess program viability; ensure schedules, cost and approach are consistent and reasonable; ensure program planning includes closeout focus and strategy.
- Identify possible roadblocks to progress and work with the installation to overcome those roadblocks. Enlist the resources necessary to get programs on track.
- Review Technical Documents (RI/FS & RFI/CMS documents):
  - Coordinate reviews, including Groundwater Extraction and Treatment Effectiveness Review (GWETER), with USACHPPM/USAEC technical support.
  - Ensure Data Quality Objectives are identified.
  - Ensure plans detail an acceptable technical approach.
  - Ensure plans support decision points.
- Review Proposed Plans, DD, and RODs:
  - Work with installation on Army position at the RI/FS stage.
  - Ensure proposed plans and DD reflect Army position.
  - Coordinate USACHPPM and Legal input and review.
- Perform quality assurance checks on program management data and coordinate corrections with the installations.
- Identify opportunities where use of Performance-Based Contracts (PBC) will enable more efficient use of funds and/or site closeout. Monitor obligation performance against installation obligation plans and work with the installations to expedite actions.

To obtain USAEC ERM POC information for a specific installation, contact the USAEC's Cleanup Division at DSN 584-3461 or commercial (410) 436-3461.

5.5 US ARMY CENTER FOR HEALTH PROMOTION AND PREVENTIVE MEDICINE (USACHPPM)

The USACHPPM provides medical and health related oversight of Army restoration activities and serves as the Army Liaison and the DoD Lead Agent for the Agency for Toxic Substances and Disease Registry (ATSDR). The USACHPPM provides oversight of the preparation of Public Health Assessments, health consultations, health studies, responses to citizens' petitions and public health education activities; and reports on the status of the ATSDR program at the DoD IPRs.

The USACHPPM also reviews and concurs on human health risk assessments and Decision Documents (RODs/DD) for the Army Surgeon General and reviews ecological risk assessments.

5.6 BRAC DIVISION AND BRAC FIELD OFFICES (FO)

The BRAC Division, under the direction of the ACSIM, is the Army's program manager for all BRAC activities. The BRAC Division provides guidance to the installations on the execution of program requirements and directs distribution of all BCA funds for the BRAC ERP.

The BRAC Division and its designated FO have responsibility for managing DERP progress at non-BRAC excess installations. These offices work closely with USAEC to identify and prioritize DERP activities. The BRAC Division and designated FO also have the responsibility of facilitating property transfer.

5.7 U.S. ARMY TECHNICAL CENTER FOR EXPLOSIVE SAFETY (USATCES)

The USATCES reviews and approves all Explosive Safety Submissions (ESS), Chemical Safety Submissions and/or explosive or CWM site plans for consistency with DoD Explosives Safety Standards (DoDD 6055.9-STD) and with DoD and Army explosives safety policies. USATCES also reviews the explosives safety provisions (e.g., land use controls or explosive safety-related notices) of transfer documents (e.g., leases, deeds, findings of suitability for transfer) for property known or suspected to contain MEC or residual explosive hazards that, per DoDD 6055.9-STD, must be submitted to the DDESB for review and approval prior to the transfer.

The ESS and explosive site plan are critical documents for munitions responses to MEC. A DDESB-approved approved ESS is required prior to implementation of the agreed upon munitions response to MEC. The purpose of the ESS is to ensure that all applicable DoD and DA explosive safety standards are applied during a munitions response. See Sections 6.15.2. and 6.15.3

Chapter 6
Program Procedures

The BRAC ERP addresses the Army's cleanup responsibilities under CERCLA for transferring Army properties closed or realigned pursuant to the BRAC process[1]. The following sections address certain property transfer environmental requirements, that are involved under the BRAC ERP.

6.1 DECISION DOCUMENTS (DD)

The term "Decision Document" encompasses RODs and Action Memoranda for remedies and removals, and Statements of Basis for RCRA corrective actions. Installations will maintain all DDs in the installation Administrative Record and their permanent environmental files and provide copies to USAEC.

6.1.1 CERCLA REMEDIAL RECORDS OF DECISION (ROD)/DECISION DOCUMENTS (DD)

Under the CERCLA/NCP RA process at both NPL and non-NPL sites, a remedy must be selected and documented in a ROD (for NPL) or DD following receipt of the Proposed Plan, public comments, and consultation with the regulators. The ROD or DD serves as certification that the Army selected the remedy pursuant to CERCLA Section 104 and following the process in CERCLA Section 120 and the NCP Section 300.430. All RODs must explain how the NCP's nine evaluation criteria[2] were used to select a remedy.[3] All facts, analyses of facts, and site-specific policy determinations considered in implementing a remedy should be documented in a ROD in an appropriate level of detail.[4] A ROD describes the site and types of contamination at issue, outlining the risks being addressed. The FS alternatives are summarized with a discussion of why the selected alternative was chosen. A ROD explains why the remedy is protective of human health and the environment and the applicable or relevant and appropriate requirements

[1] 10 USC 2687, note

[2] The nine NCP criteria are: overall protection of human health and the environment; compliance with applicable or relevant and appropriate requirements; long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; cost; state acceptance; and community acceptance. These criteria and a brief explanation of their scope can be found in 40 Code of Federal Regulations 300.430(e)(9) and (f)(1). These criteria are based on the requirements in CERCLA section 121 (42 U.S.C. 9621). For a further explanation of the 9 NCP criteria, see 55 Federal Register at 8719 (March 8,1990).

[3] 40 CFR 300.430(f)(5)(i).

[4] 40 CFR 300.430(f)(5)(i). See also 55 FR at 8731 (March 8,1990), for a general description concerning decision documentation.

(ARARs) of other federal and state laws to be attained.[5] There should also be a description of how the technical aspects of the remedy will address the specific site contaminants and whether five-year reviews are needed.[6] A ROD should also show how the remedy is cost-effective proportional to its protectiveness.[7]

A ROD should contain the following nine parts:

a. Site Conditions and Background

b. Current and Potential Future Land/ Water Use

c. Site Risks

d. Remedial Action Objectives[8]

e. Description and Comparative Analysis of Alternatives[9]

f. Description, Cost and Outcome of Selected Remedy

g. Statutory Determinations (ARARs & Periodic Review)[10]

h. Responsiveness Summary(i.e., summary of responses/significant comments)[11]

i. Declaration of Remedy & Signature

Pursuant to NCP §300.430 (f)(6), after the ROD is signed, the Army is required to:

- Publish a notice of the availability of the ROD in a major local newspaper of general circulation (the USEPA will publish the notice in the Federal Register).

- Make the ROD available for public inspection and copying at the information repositories located on or near the facility prior to the commencement of any RA.

[5] 40 CFR 300.430(f)(ii)(A) and (B).

[6] 40 CFR 300.430(f)(5)(ii)(E) and 300.430(f)(iii)(C).

[7] 40 CFR 300.430(f)(5)(ii)(D).

[8] 40 CFR 300.430(f)(5)(iii)(A).

9 40 CFR 300.430(f)(5)(ii).

10 40 CFR 300.430(f)(5)(ii) identifies the statutory requirements of CERCLA section 121 (42 U.S.C. 9621).

[11] 40 CFR 300.430(f)(5)(iii)(B). See also USEPA, Solid Waste and Emergency Response, Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents, EPA540-R-98-031 (July 1999).

Per CERCLA §120 (e)(2), the RA must commence within 15 months of signing the ROD.

A signed ROD may be re-evaluated at any point during the RA process (i.e., during RD, before or after operations are in place, when the selected remedy is found to be ineffective, more stringent cleanup standards are promulgated, or if recently developed technology may be more beneficial towards cleanup). If, after re-evaluation, the selected remedy fundamentally changes, the Army will have to modify or amend the ROD before the changes can be implemented (see Section 6.1.4).

6.1.2 Removal Action Memoranda/DDs

An Action Memorandum serves as the primary DDsubstantiating the need for a removal response, identifying the proposed action, and explaining the rationale for the removal.[12] There are, however, three types of removal actions: emergency, time-critical, and non-time critical. While the NCP does not explicitly categorize Removal Actions into these categories, USEPA uses these terms in implementation guidance.[13] In emergency or time-critical situations, it may be necessary to initiate action prior to the preparation of an Action Memorandum.[14] Thus, documentation consistent with this guidance to the extent practicable may occur after the removal action for emergency or time critical removals.

For non-time critical removals, or where time permits prior to time-critical removals, the Action Memorandum should contain the following six parts:

1. Purpose
2. Site Conditions and Background
3. Threats to Public Health or Welfare or the Environment
4. Proposed Action(s) and Estimated Cost (including identified ARARs)

12 See OSWER Dir. 9360.3-01, Superfund Removal Procedures Action Memorandum Guidance (Dec. 1990).

13 For example, EPA Publication 9360.0-32, Guidance on Conducting Non-Time-Critical Remedial Actions Under CERCLA, 1993, states that: EPA has categorized removal actions in three ways: emergency, time-critical, and non-time critical, based on the type of situation, the urgency and threat of the release or potential release, and the subsequent time frame in which the action must be initiated. Emergency and time-critical removal actions respond to releases requiring action within 6 months. Non-time-critical removal actions respond to releases requiring action that can start later than 6 months after the determination that a response is necessary.

14 See OSWER Dir. 9360.3-01, Superfund Removal Procedures Action Memorandum Guidance, at page 5 (Dec. 1990).

5. Recommendation

6. Signature

The Site Conditions and Background should include a site description and other actions to date. The NCP at 40 CFR 300.415(b) requires a determination that there is a threat to public health or welfare or the environment based on eight factors.[15] Thus the Action Memorandum documents why removal (as opposed to remedial) action is appropriate.[16] The Action Memorandum also describes the proposed action and estimated costs, including how the removal action, to the extent practicable, contributes to the efficient performance of any anticipated long-term RA (NCP at 40 CFR 300.415(c)). This section also discusses ARARs, which are to be attained to the extent practicable considering the exigencies of the situation. Non-time critical removals should also refer to the Engineering Evaluation/Cost Analysis (EE/CA) and discuss the alternative actions considered.

6.1.3 Corrective Action Statements of Basis (SB)/DDs

A SB or similar state designated document serves as the primary DD substantiating the need for a RCRA corrective RA with evaluation of the proposed remedy and other alternatives based on risk-based selection criteria. The regulator should prepare a SB when corrective action is implemented through either a permit or an enforcement order[17]. A SB is a remedial selection document similar in purpose to

[15] The eight factors are:

(i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants

(ii)Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;

(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;

(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released

(vi) Threat of fire or explosion;

(vii) The availability of other appropriate federal or state response mechanisms to respond to the release, and

(viii) Other situations or factors that may pose threats to public health or welfare or the environment.

[16] See USEPA, Office of Enforcement and Compliance Assurance, Use of Non-Time-Critical Removal Authority in Superfund Response Action, February 14, 2000.

[17] See OSWER Dir 9902.6, *Guidance of RCRA Corrective Action Decision Documents:* The Statement of Basis Final Decision and Response to Comments, (Feb 1991). Note that remedy selection and/or site closeout status should eventually be identified in the permit provisions concerning RCRA corrective action or if a corrective action order is updated.

a CERCLA ROD. Because the SB is issued by a regulator, a CMS can serve as the DD for Army staffing purposes. [18]

Although state specific requirements may vary somewhat, a DD/SB should contain the following six parts:

1. Purpose
2. Site Risk and Background
3. Proposed Remedy and Scope of Corrective Action
4. Summary of Alternatives
5. Evaluation of the Proposed Remedy and Alternatives
6. Public Participation if a RAB exists or permit conditions require
7. Declaration and Signature

The Site Risk and Background should include a site description of the contaminated media, the contaminants of concern, exposure pathways, the potential exposed population, and the level of risk to human health and the environment. The USEPA's guidance on corrective action established a two-phased evaluation for remedy selection sufficient to meet first threshold then balancing criteria in order to identify the remedy that provides the best relative combination of attributes. A DD/SB should also describe how the scope of the proposed remedy fits into the overall IRP strategy and effectively balances treatment with exposure control for reasonably anticipated reuse.[19]

6.1.4 DD Staffing and Approval Procedures

The review and approval procedures for DDs are contained in the DASA(ESOH) memorandum,7 August 2003, subject: Policies for Staffing and Approving Decision Documents. The portion of the 7 Aug 03 memorandum applicable to the Army BRAC installations is at Appendix G.

[18] If a CMS is used as the DD for Army staffing purposes, the SB does not need to be re-staffed unless there are significant differences between the CMS and the SB.

[19] See for use as guidance USEPA Proposed Rule for *Corrective Action for Releases from Solid Waste Management Units at Hazardous Waste Management Facilities*, 61 Federal Register 19431. (May 1, 1996). Threshold criteria: Remedies must (1) be protective of human health and the environment; (2) attain media cleanup standards; (3) control the source(s) of releases so as to reduce or eliminate, to the extent practicable, further releases of hazardous waste that might pose threats to human health and the environment ; and (4) comply with applicable standards for waste management. Balancing criteria: For choosing among alternatives that meet the threshold criteria: (1) long-term reliability and effectiveness; (2) reduction of toxicity, mobility, or volume of wastes; (3) short-term effectiveness, (4) implementability, and (5) cost.

6.1.4.1 RESPONSIBILITIES

Installations must ensure that DDs that commit the Army to future expenses are:

- Legally sufficient and compliant with CERCLA, the NCP or RCRA requirements.
- Eligible for BRAC ERP funding.
- Included in the BRAC Work Plan.
- Conform to priorities for risk reduction.

The Army will not support funding ineligible actions with BRAC funds. Installations must fund those projects with installation operating or construction funds. Projects not complying with the above may require renegotiation of agreements with regulators.

Installations must prepare DDs in accordance with applicable law, staff the DDs for review and concurrence on the selected action, and obtain the appropriate approvals prior to requesting the release of funds for award of a cleanup contract. For the most part, environmental remediation contracts should not be awarded prior to the approval of DDs. Such projects may be subject to contract modification and will be reported to the ACSIM during IPRs. Additionally, these projects can be challenged as being pre-selected in the ROD/NCP process.

6.2 RECORDS MANAGEMENT

Installations must collect and retain environmental restoration records in accordance with applicable statutes and regulations and be consistent with USEPA guidelines. Environmental restoration records will be collected as they are generated or received in the course of the decision-making process.

6.2.1 Administrative Record

Installations shall establish an Administrative Record that contains the documents that form the basis for the selection of a response action. The installation shall compile and maintain the Administrative Record in accordance with CERCLA and 40 CFR §300, Subpart I and USEPA guidance.

The Administrative Record serves two purposes. First, the Administrative Record acts as a vehicle for public participation in selecting a response action. Second, judicial review of any issue concerning the adequacy of any response action is limited to the contents of the Administrative Record. Under this provision of CERCLA the Administrative Record is the sole source of documentation that can be used by a party challenging a response action. It is also the sole source of

documents available for the defense of a response action by an installation. It is critical that the installation take care in compiling the Administrative Record. If the installation fails to compile a complete and accurate Administrative Record, it may significantly impact DoD's ability to defend, and the court's ability to review, a challenged decision. A permanent record of the data gathered to characterize a site and a clear audit trail of pertinent data analysis and resulting decisions and actions are required.

The Administrative Record shall include, but is not limited to including:

- Documents and materials containing information that may form a basis for the Army's selection of a response action.
- Documents and materials available to the installation at the time the decision was made.
- Documents and materials that were considered by or relied upon by the installation.
- Documents and materials that were available to the installation at the time of a decision, even if the decision maker did not specifically consider those documents.
- Privileged and non-privileged confidential documents and materials.
- Documents received, published, or made available to the public as required by CERCLA for removal or remedial site assessments or actions.

6.2.2 MMRP Documentation

For MMRP response actions, installations shall have a permanent record of the data gathered to characterize a site and a clear audit trail of pertinent data analysis and resulting decisions and actions. To the maximum extent practicable, the permanent record shall include sensor data that is digitally recorded and geo-referenced. The ACSIM shall approve exceptions where digitally recording and geo-referencing are impractical. These data shall be included in the Administrative Record.

6.2.3 Environmental Restoration Information System (ERIS) and Electronic Data Storage Requirements

The ACSIM established an Army policy that requires the storage of environmental restoration data in a centralized database. The ERIS was developed for this purpose and has replaced the outdated Installation Restoration Data Management Information System. The ACSIM expected all installations that have re-

ceived BRAC funds to collect environmental restoration data to enter that data into the ERIS and to modify existing laboratory contracts accordingly. However, BRAC Division has not directed Army BRAC installations to use ERIS to meet their electronic data storage requirements. Therefore, use of the ERIS at BRAC installations for electronic data storage is voluntary. BRAC installations that elect not to use ERIS must document how the ACSIM requirement is being satisfied and must submit the documentation to their assigned USAEC ERM.

See the 17 February 1999 memorandum from the ACSIM, subject: Policy on Electronic Storage of Environmental Restoration Data. See the 12 November 2003 memorandum from the ACSIM, subject: Implementation Guidance for the Use of the ERIS.

6.3 PUBLIC HEALTH REQUIREMENTS

A Public Health Assessment (conducted by ATSDR) is required when an installation is proposed for the NPL or is the subject of a citizen's petition. Upon proposal for the NPL, the installation is contacted by the USACHPPM. The Center instructs the installation on the requirements for a Public Health Assessment, the role of the ATSDR, and negotiates a schedule for an initial ATSDR site visit within 18 months of proposal to the NPL. The USACHPPM provides installations with a schedule for site visits and documents delivery by quarter.

6.4 OFF-SITE RESPONSE ACTION

To fulfill its CERCLA responsibilities, the Army has the authority to conduct response actions outside of the installation boundaries, where the installation is reasonably considered to be the sole or the major source of the release. Off-site actions can be complex and often require extensive coordination with federal, state and private interests because of the lack of Army control over the off-site property.

For DoD, only Explosive Ordnance Disposal (EOD) units have execution authority for explosives or munitions emergency response actions to control, mitigate, or eliminate the actual or potential threat encountered during an explosives or munitions emergency.

AR 200-1 states that the DASA (ESOH) will approve all off-site response actions. However, since publication of the February 1997 AR 200-1, the DASA (ESOH) has designated authority to the Garrison Commander to approve off-site data collection to determine contamination migration and any off-post monitoring to en-

sure that contamination has not migrated off-site. If there is an actual or high potential threat to human health or safety on or off the installation, the DASA (ESOH) will be immediately notified by the BEC through USAEC and BRAC Division. The DASA (ESOH) approves off-post response actions to include either starting or stopping the provision of bottled water, alternative water supplies, wellhead treatment devices, or connection to a municipal water system.

The installation must provide a response plan through the command chain (with information directly to USAEC) to the DASA (ESOH) for any off-site response actions. In emergencies, this plan may be submitted after receiving verbal or electronic approval from the DASA(ESOH) to respond.

Requirements for notification procedures and the response plan can be obtained from DA PAM 200-1 Section 11-14. Available on the Internet at **http://usapa.army.mil.**

6.5 TECHNICAL REVIEW AND ASSISTANCE

In support of the BRAC Division, the USAEC ensures that the BRAC ERP is conducted as effectively and efficiently as possible. Therefore, the USAEC has established a Technical Review and Assistance Branch within its Cleanup Division to provide both technical review of installation actions and technical assistance in developing sound technical approaches to cleanup problems. Independent Technical Review (ITR) was the initial project-level technical and legal review and assistance mechanism. This mechanism has been superceded by several initiatives that support the cleanup program.

6.5.1 Site-Specific Technical Assistance

Site-Specific Technical Assistance is useful in the development of investigative and cleanup plans. The overall objective of Site-Specific Technical Assistance is to meet the Army's obligation to protect human health and the environment while ensuring that planned response actions are cost-effective. The Site-Specific Technical Assistance process provides access to top environmental experts from a variety of environmental disciplines. The assistance group reviews specific projects to determine whether the investigative approach, proposed actions, proposed monitoring plans, and exit strategies are technically and legally sound. The assistance is intended to improve decision-making and to support technically and legally sound initiatives. Site-specific technical assistance is adaptive and flexible to meet the needs of the Army.

6.5.2 Groundwater Extraction and Treatment Effectiveness Review (GWETER)

The GWETER program focuses specifically on assessing the effectiveness of existing groundwater treatment systems. The primary purpose of these reviews is to determine whether there are more cost-effective alternatives to pump and treat that were not considered during initial remedy selection. These reviews use technical experts, from the government and regulatory agencies to ensure that existing systems have performance goals that define when cleanup is completed and systems can be shut down. In addition, these reviews are to be used to ensure that the systems are capable of meeting these performance goals in a reasonable period and that there are not new technologies that can meet these goals in a more cost effective manner. For example, protocols for determining the effectiveness of natural attenuation have matured and the use of natural attenuation in conjunction with a pump and treat system can be very cost effective. The GWETER examines the basis for risk management decisions and cost effective cleanup by analyzing all aspects of the groundwater exposure pathway. Secondarily, GWETER looks at pump and treat systems still in the proposed stage to insure that all alternatives to pump and treat are being considered.

6.5.3 Principles of Environmental Restoration (PER) Workshop

A number of general ITR recommendations have been quite common among a large percentage of installation projects reviewed. To address these recurring recommendations and lessons learned, USAEC developed an additional assistance program to provide environmental restoration assistance to the Army: The USAEC adopted the PER workshop to provide more streamlined and direct assistance to Army installations on specific issues, especially decision-based planning. This initiative is the result of an effort to capitalize on a training program developed jointly by the Department of Energy (DOE) and the USEPA to improve the DOE cleanup program.

The purpose of the PER workshop is to provide tools and approaches that will help decision-makers collect appropriate investigative information and proceed more quickly to acceptable site closeout. The workshop stresses the need for early planning and development of data quality objectives and early development of exit criteria to ensure investigations and cleanups stay on track. The workshop is intended to:

- Provide sufficient understanding of environmental restoration principles to ensure that proposed investigative and cleanup requirements are needed to support risk-based decisions and actions, and
- Improve the process within which the installation project teams operate to better focus on the end objectives of the restoration program.

Central to the PER workshop are four key principles of environmental restoration. These principles are:

- Building an effective project management team.
- Clear, concise, and accurate problem identification.
- Early identification of possible response actions.
- Uncertainties are inherent and will always need to be managed.

The workshop addresses the applicability of these principles across the spectrum of restoration efforts - from site investigation planning through site closeout - and how they can be used to improve the decision-making process at most sites.

6.5.4 Performance-Based Contracting (PBC)

For the Army's active installations, the USAEC is playing a key role in establishing a formal PBC program. PBC is a concept based on reforms mandated to all Federal Agencies by the President's Management Agenda, the Government Performance and Results Act of 1993, and the Federal Acquisition Streamlining Act of 1994. These reforms emphasized the need to maximize the focus on results instead of focusing on the process. Using this approach, the government no longer develops a prescriptive statement of work dictating how the contractor will achieve project milestones. Instead, a performance-based approach to environmental cleanup emphasizes the outcomes the contractor will achieve (e.g., RC, RIP) but does not specify how to achieve those end results. This approach allows private remediation firms the flexibility to conduct environmental cleanups in a manner that is cost effective for their company while still ensuring that safety is maintained, legal requirements are met, and required milestones are achieved.

PBC allows the Army to buy environmental cleanups for a fixed price and at a set schedule. The Army maintains oversight of the cleanup and determines upfront (in consultation with the regulators) the desired outcome (typically remedy in place) that will be achieved. In guaranteed fixed price remediation contracts, the use of environmental insurance offers the Army protection from environmental liabilities.

The PBC process involves three phases:

- Initiation of the procurement process:
  - Preparation of a Performance Work Statement or Statement of Objectives
  - Development of the Independent Government Cost Estimate (IGCE).

- Development of the Request for Proposal by the contracting organization.
- Scoping/Bidders Meeting at the installation to initiate the proposal process.

- Evaluation of the proposals, negotiation, and award/non-award decision.
- Contract oversight and deliverables.

Some remediation efforts may not be good candidates for a PBC. Restoration efforts where characterization data is sketchy or incomplete or where regulatory closure is not easily defined are not good candidates for this approach because of the high risk due to uncertainty. As the level of uncertainty increases so does the risk and high-risk projects may not be good candidates for the necessary environmental insurance.

Monetary incentives may be included in a PBC in an effort to encourage a contractor to achieve regulatory closure on a particular site in an expedited manner. This approach can assist the Army in reducing out-year LTM and O&M costs.

Award of a PBC is not automatic nor is the award guaranteed to incumbent contractors at the installation. Candidate bidders must have completed elements of their current work that impinge on the scope of the request for proposal. During scope development, the Army team attempts to reduce the amount of uncertainty present in order to ensure a sufficient pool of qualified bidders.

Prior to entering into final negotiations with the bidders, the Army develops a negotiation strategy to identify the agreed-upon point at which the PBC will not be awarded should bids exceed the IGCE and negotiations fail to close the gap to the Army's satisfaction.

Requirements for notification procedures and the response plan can be obtained from DA PAM 200-1 Section 11-14. For detailed information on PBC, contact the USAEC at 410-436-1528. For other Technical Review and Assistance information, contact USAEC's Cleanup Division at 410-436-5793/1522 or DSN 584-5793/1522.

6.6 INTERAGENCY AGREEMENT (IAG)/FEDERAL FACILITY AGREEMENT (FFA)

Upon an installation's nomination to the NPL, the installation, the USEPA, and , if the State requests, appropriate state regulatory agencies enter into an IAG/FFA

to complete of all necessary RAs at the installation. The Garrison Commander and the DASA (ESOH) will both sign the IAG/FFA for the Army.

In order to maintain consistency throughout DoD, DoD and USEPA developed the 1988 EPA-DoD FFA model language, with edits for state participation dated 17 March 1989, and the most recent revision of 10 February 1999. This model language forms the basis for all FFA negotiations. The FFA model language was not intended to cover all issues that would be included in an FFA, and installations may negotiate additional, necessary provisions on a site-by-site basis that do not conflict with the FFA model language. Such additional provisions do not become part of the model language, nor are they binding precedent for other FFAs for that or any other DoD installation.

In addition to following the FFA Model Language, Army installations will also incorporate FFA terms outlined in accordance with the DASA(ESOH) memorandum, 2 March 2004, subject: Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Record of Decision (ROD) and Post-ROD Policy. This would include adding a site-wide closeout document or a final RA completion report as a primary document.

The ODUSD must approve deviations to the model language. The concepts of "flexible" schedules, funding constraints, and relative risk must be incorporated into IAGs/FFAs. For re-negotiated agreements, the DoD and the Army, again, strongly support incorporation of the concept of flexible schedules.

To the extent that an installation negotiates provisions that deviate from the FFA model language in a proposed FFA, that installation will specifically identify each such change and its rationale when submitting the proposed FFA for ODUSD review. In addition, the installation will identify and provide rationale to reviewers for any other significant provision in the draft FFA that would qualify or limit any FFA model provision, as well as novel additions to the model language.

The installation's servicing legal office has the lead in IAG/FFA negotiations; however, the legal chain of command may designate another lead should the installation request assistance. The USAEC counsel and OTJAG will provide assistance during the negotiation process. When the IAG/FFA is sent to DASA (ESOH) through the command chain for signature, the ACSIM requests concurrence from the OTJAG and USAEC. The installation should provide USAEC with copies of the draft IAG/FFA for review and concurrence prior to sending the IAG/FFA to DASA (ESOH) for signature.

See the 10 May 2000, memorandum from the DUSD(ES), subject: Federal Facility Agreement – Deadlines and Funding Model Language for the latest guidance on FFA model Language. See 6 December 2000, memorandum from the DUSD(ES), subject: Federal Facility Agreement Model Language-Policy on

Deviations for the latest policy update.
http://aec.army.mil/usaec/cleanup/popup/library/index.html.

6.7 REGULATORY PARTICIPATION

It is the Army's intent to work cooperatively with regulatory agencies so that Army's restoration goals can be accomplished cost effectively, in accordance with applicable laws and regulations. To accomplish this, Army installations should identify points of contact in regulatory agencies, determine communication channels, and establish cooperative relationships. Installations should provide regulators with ready access to program information, including draft data and documents, and establish procedures for obtaining pertinent information from regulators on a timely basis.

Installations should involve regulatory agencies in:

- BCTs.
- RRSEs and RAC scoring.
- Project planning, budgeting, and implementation (including BCPs).
- Work Plan development and site and project prioritization.
- Development of the Conceptual Site Model and sampling and analysis plans and updates.
- Response Complete and Site Closeout determinations.
- RABs and other community involvement initiatives.
- FOST, FOSL, FOSET.

6.8 PUBLIC PARTICIPATION AND COMMUNITY INVOLVEMENT

Local communities are interested in the results of environmental studies conducted under the ERP because of the potential impact on their health, environment, and economic well-being. The Army fully supports public involvement programs that require the Army to solicit and consider the individual advice from the interested individuals, groups, and government bodies before selecting a remedial alternative.

Installations should consult with stakeholders and the general community throughout the planning and execution process. Consultation involves providing

information and seeking feedback/input before decisions are made. Although there is public involvement, the Army retains final decision authority at non-NPL installations as lead agency. Consultation should begin in the program formulation phase, and continue to site closeout. Consultation would be re-initiated should the remedy be significantly changed or should a ROD amendment be required. The extent of consultation may vary over the life of the program and should be commensurate with the level of restoration activity and stakeholder interest. The RAB, comprised of representatives of the installation, regulatory agencies and the local community, shall be the primary forum for consultation.

When changes to the program become necessary, installations will consult with stakeholders, to include the general community, to the extent possible, before final decisions are made. This could be in the form of activities such as public meetings, public information sessions, newsletters, and press releases.

6.8.1 Community Relations Plan (CRP)

A CRP is required for all Army properties funded by BRAC. The plan provides the guidelines for future community relations activities associate with installation cleanup. The installation public relations staff normally prepares the CRP with input from the environmental staff.

CRP guidelines and related information are available on the Internet at **http://www.denix.osd.mil/denix/Public/Library/Planning/html**.

6.8.2 Environmental Justice

Army installations will address and consider environmental justice concerns and issues in its restoration programs. On 11 Feb 94, the President issued EO 12898 entitled Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. The EO measure requires federal agencies to identify and address disproportionately high and adverse human health and environmental effects of federal programs, policies, and activities on minority and low-income populations. Environmental justice issues within a community will be identified as part of the process of developing the CRP. The primary mechanism for input from the environmental justice community on restoration issues should be from RABs.

For additional information on Environmental Justice see the Department of Defense Strategy on Environmental Justice, 24 Mar 95, which is also available on the Internet at ***http://www.denix.osd.mil/denix/Public/Library/Planning/Justice/note7.htm***.

6.8.3 Technical Review Committee (TRC)

Per 10 USC §2705(c), a TRC is established to review and comment on the Army's actions with respect to releases or threatened releases of hazardous substances at installations. The TRC meetings serve as working sessions for exchanging information and organizational viewpoints. Members of a TRC include at least one representative from the Army; appropriate USEPA, state and local authorities; and representatives from surrounding communities. The Installation Commander is responsible for establishing and chairing or designating an installation/Army chairperson for the TRC.

6.8.4 Restoration Advisory Board (RAB)

RABs are a forum between governmental decision-makers and the affected local community providing the opportunity for meaningful community input to the decision-making process including project prioritization. Every installation participating in the Army BRAC ERP that is on the NPL or transferring property to the local community must establish a RAB. RABs meet the requirement of 10 U.S.C §2705c requiring a TRC at NPL installations.

The installation must keep the RAB apprised of program funding status and possible impact of any cuts prior to and during program execution. The installation should, at a minimum, provide the RAB with copies of the IAP and if appropriate have the RAB participate in the annual update of the IAP. Project work plans should also be provided to the RAB to ensure they are knowledgeable of the plans, including any changes.

The RAB members should be involved by providing individual input on activities/projects, including scope, timing, schedule, and overall environmental restoration funding at the installation. Installations shall inform TRC/RAB members of the existence of fiscal controls, and identify priorities so that, should budget reductions or program adjustment become necessary, RAB members can provide informed input.

RAB policy is contained in the DA Pam 200-1 Environmental Quality, Environmental Protection and Enhancement, 17 Jan 02 at **http://www.usapa.army.mil/gils**.

6.8.5 Technical Assistance for Public Participation (TAPP)

Community RAB/TRC members may seek independent technical assistance to contribute to the public's ability to participate in the restoration program. To obtain funding, community members of RABs/TRCs must apply for TAPP. The installation reviews the application for eligibility and approval before developing appropriate TAPP funding requirements.

Additional RAB guidance and information on TAPP, can be found on the USAEC library web site, http://aec.army.mil/usaec/cleanup/popup/library/index.html.

6.9 DEFENSE STATES MEMORANDA OF AGREEMENT (DSMOA)/COOPERATIVE AGREEMENT (CA) PROGRAM

The DSMOA/CA program funds state environmental regulatory agencies for technical services provided in support of the ERP. The goals of the DSMOA/CA Program are to expedite the cleanup process, to comply with state regulations, and to improve coordination and cooperation between DoD and state/territorial regulatory communities. The USACE is the executive agent of the DSMOA/CA Program. The Army provides USACE funding for the states that have a signed DSMOA/CA.

The DSMOA describes how a state will provide technical services and the Army will provide funds for those services. The CA specifies short-term services to be provided and the costs of those services for two years. The CA also includes a narrative summary plan of long-term activities with reasonable estimates of cost for an additional four years, as necessary. CAs will be updated to reflect MMRP requirements.

For detailed guidance on the DSMOA/CA Program, see the USACE handbook "Working Together to Achieve Cleanup: A Guide to the Cooperative Agreement Process", available on the Internet at http://www.edod.net/dsmoa/.

6.10 MONITORED NATURAL ATTENUATION FOR ENVIRONMENTAL RESTORATION

While natural attenuation has no specific regulatory definition, the Army defines natural attenuation as the reduction of contaminant concentrations in the environment through biological processes (aerobic and anaerobic biodegradation, plant and animal uptake), physical phenomena (advection, dispersion, dilution, diffusion, volatilization, sorption/desorption), and chemical reactions (ion exchange, complexation, abiotic transformation). Terms such as intrinsic remediation or biotransformation are included within the more general natural attenuation definition.

Natural attenuation is not a no-further-action alternative. Natural attenuation typically requires extensive monitoring to ensure that the predicted natural processes are taking place. Natural attenuation remedies might take longer than engineered remedies to correct the problem. Additionally, there should be a readily available contingent remedy for the site. It will take credible scientific data, site characterization data, and predictive modeling to prove that natural processes are sufficient to reduce risk in the time frame required.

Army policy directs that natural attenuation must be considered as a candidate remedy for contaminated sites either alone or in combination with active engineered measures. Prior to approving an engineered RA, natural attenuation must be proven to be an inappropriate remedial solution.

Full protocols on the use of natural attenuation for different classes of contaminants commonly found at Army bases are presently under development at USAEC. Until these protocols are available, the Air Force Center for Environmental Excellence's protocol (Technical Protocol for Implementing the Intrinsic Remediation (Natural Attenuation) with Long-term Monitoring Option for Dissolved-Phase-Fuel Contamination in Ground Water) for petroleum contaminants is recommended.

For more information on monitored natural attenuation, consult EPA Directive Number 9200.4-17P, Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites, Apr 21, 1999.

6.11 LAND USE CONTROLS (LUCS)

The LUCs are physical, legal, and other mechanisms that restrict property use. The LUCs are used to mitigate risks associated with exposure to potential hazards (e.g., environmental, explosives) during or residual to cleanup, when it is inappropriate or not feasible to eliminate those risks by removing or treating the contaminated media to unrestricted use levels. LUCs should considered a component of other response actions, unless leaving contaminants in place proves to be the most favorable risk management decision (e.g., due to technical or economic limitations, concerns regarding worker safety, or to prevent collateral ecological injuries). As with any environmental response action, complete characterization and cleanup of all MEC during a munitions response is not possible due to technical impracticability, cost, or other issues (e.g., worker safety, overall risk). Because residual hazards or risks will remain at an MRS after a responses complete decision had been made, LUCs will normally be required to manage those residual hazards or risks. The primary LUC mechanisms are defined as follows:

- Physical mechanisms 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, warn people of dangers, or restrict or contain actual or potential contaminant migration. These mechanisms are also known as Physical Controls or Engineering Controls (ECs).

- Legal mechanisms used for LUCs may be the same as those used for Institutional Controls (ICs) as discussed in the NCP. These mechanisms are primarily imposed to ensure that restrictions on land use, developed as part of a remedy decision, stay in place. Examples of legal mechanisms in-

clude restrictive covenants, equitable servitudes, and deed restrictions for transfer properties

The objective of LUCs is to ensure that future land use remains compatible with the land use that was the basis for the evaluation, selection, and implementation of the response action. As such, LUCs are a common component of any response action that does not allow for unrestricted land use following the completion of the response action or when the response action allows for unrestricted use, but there is a need to protect the integrity of the remedy. Because current technologies do not allow for complete removal of all MEC, LUCs will be a component of all munitions responses at MRS known to contain MEC.

There are instances where restrictions on the use of a property pre-date the conditions that gave rise to the need for environmental restoration activities. Where there is a pre-existing restriction, it shall be used to establish the "reasonably anticipated future land use." However, since it is not being instituted as a part of the environmental restoration activities, that pre-existing restriction need not be evaluated as a response alternative.

At all sites where a use restriction is part of environmental restoration activities, the LUC must be clearly defined, established in coordination with affected parties, and enforceable. Implementing LUCs through established real estate and land use management mechanisms provides a means to assure that LUCs remain effective. Use of a system of mutually reinforcing controls is often a necessary component in a LUC strategy. When considering LUCs as part of the response alternatives, the unrestricted use alternative must also be considered.

6.11.1 LUCs at Transferring Property

For property that is to be transferred with some type of LUC, the types of mechanisms that restrict land use are generally either governmental or proprietary. Governmental mechanisms originate from state or local police power authorities, including zoning, permitting, and local redevelopment ordinances. Proprietary controls are contractual mechanisms, usually established in a transfer deed or contract for sale in the form of covenants or easements.

The LUCs should be managed and maintained at the local level whenever possible. In the case of a BRAC installation, to the maximum extent possible, the transferee or other local party should assume the bulk of LUC duties. The future landowner has an active role in managing the land in their possession; so on-the-ground LUC responsibilities should become the duty of the transferee.

At properties transferring from federal control, Components should use state LUC registries where available. Components may grant a property interest to the relevant state or local agency that will allow the state or local agency to maintain and enforce the LUC. As most LUCs are memorialized in the deed as deed restrictions or in other publicly available legal instruments that would be discovered

during a real estate transaction, it is essential that the Component consult state property law and state environmental law when drafting the restriction because state law may require the use of a particular type of instrument or operative language.

6.11.2 Documenting and Implementing LUCs in RODs/DDs

Coordinate with the installation legal office on LUC documentation and implementation to ensure consistency with any recent guidance. The most recent HQDA guidance is contained in DASA (ESOH) memorandum, subject: The CERCLA Record of Decision (ROD) and Post-ROD Policy, dated 2 March 2004 (Appendix F). Only broad LUC objectives, not specific installation implementation actions, will be included in the CERCLA ROD/DD. This means that installations will keep the ROD lean (by stating what the LUC is and what the LUC's purpose (RA objective(s)) is in the ROD). The implementation details are to be included in documentation for the RD Phase (this may be a RD Work Plan, RA Work Plan, LUC Implementation Plan, RD, etc., depending on the terminology used by the specific installation, state and USEPA region). Once further guidance on LUCs is approved, it will be provided via memorandum and on the USAEC web site.

6.12 CERCLA FIVE-YEAR REVIEWS

In accordance with CERCLA and the NCP, if hazardous substances, pollutants, or contaminants remain at a site after a response action, at levels that do not allow for unlimited use and unrestricted exposure, a CERCLA five-year review is required. However, where RCRA Corrective Action has been implemented, the Army will not require a five-year review. However, where residual explosive hazards form MEC remain, the BEC will ensure that five-year reviews or, if appropriate, more frequent reviews are required to ensure that the completed response remains protective.

The CERCLA five-year review will be conducted no less often than every five years after a selected RA has been initiated, or in accordance with the ROD/DD. The first review will be conducted no more than five years after the initiation of on-site construction for the first site requiring a five-year review. All sites will be included in the first review regardless of their phase of cleanup unless they have already been cleaned up for unrestricted use. Five-year reviews will continue until contaminants are below levels that allow for unrestricted use for all sites, as determined by the Army.

The USAEC will distribute an annual memorandum notifying affected installations that a five-year review is due in the next FY. BRAC Division will actually develop the schedule for five-year reviews and BRAC installations. The BEC will review the RA to ensure that human health and the environment are being protected. The review process will also be used to determine whether active treatment remedies and long-term monitoring programs are operating efficiently and

continue to be cost effective. The BEC will obtain USAEC concurrence prior to submitting copies to regulators for review and comment. If a selected remedy is determined to be inoperative and/or not protective of human health and the environment, a new remedy will be selected that complies with the provisions of CERCLA and the NCP.

For BRAC ERP projects, five-year reviews will be funded by BRAC. Installations will be responsible for updating the associated CTC and for programming for funds in AEDB-R. BRAC Work Plans will list USAEC as the executor to allowing funding transfer directly from USAEC to the executor. The USACE HTRW Center of Expertise will conduct all CERCLA five-year reviews at BRAC ERP installations. The only exception will be at those installations that have instituted a PBC that holds the contractor responsible for conducting the five-year review within the contract period of performance.

Final Guidance is currently being reviewed and staffed for signature. See the 5 April 2000 memorandum from the ACSIM, subject: Interim Guidance for Conducting Five-Year Reviews for current guidance.

6.13 END OF RESTORATION PROGRAM

Sites remain in the BRAC ERP until all required response actions have been completed. Requirements at these sites will continue to be programmed and budgeted in the appropriate BCA account.

6.13.1 Response Complete (RC)

Consistent with CERCLA, the DERP, and applicable Executive Orders and regulations, IRP category environmental response activities shall be considered "RC" when all the response objectives identified in an appropriately signed ROD/DD have been achieved and documented.

If BRAC ERP activities allow for unrestricted use of the property, RC occurs when there is verification of the achievement of the response objectives detailed in the ROD/DD.

If BRAC ERP activities do not allow for unrestricted use of the property, RC occurs when the following three conditions are met:

- There is verification of the achievement of the response objectives detailed in the ROD/DD.
- At least one subsequent five-year review has been conducted to ensure that the response action has remained effective and continues to be protective of public safety, human health and the environment as defined by the response objectives detailed in the ROD/DD.

- At least five years have elapsed since the RA objectives were first achieved.

6.13.2 Reopened Sites

A "reopened environmental restoration site" is any site previously determined to have completed all required response actions that requires additional response actions to achieve the response objectives identified in the ROD/DD.

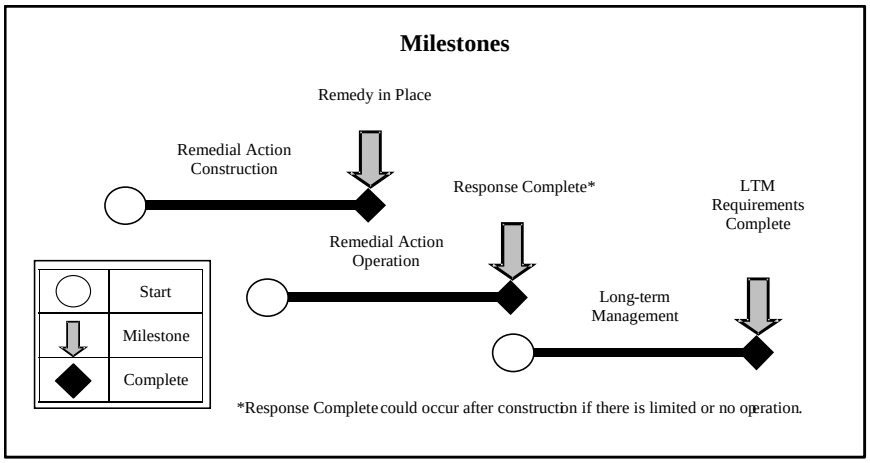
The second type of reopened site relates to sites where the investigation(s) have been completed (PA, SI, RI/FS) and subsequently, an investigative phase is reopened. These sites are also "reopened environmental restoration sites." Additional environmental study or response action requirements at such sites shall be identified during AEDB-R updating. Reopening of a site or investigation requires justification. That justification will be included in the narrative field of the site general information in AEDB-R.

6.13.3 Post-Remedial Design (RD) Procedures

The terminology for work in the final stages of remediation was developed to more accurately reflect the status of the site. Remedial Action-Construction (RA(C)) is the phase during which the final remedy is installed or constructed. The end date signifies that the installation or construction is complete, all testing is accomplished, and that the remedy will function properly. Remedial Action-Operations (RA(O)) is the phase during which the remedy is in place and operating to achieve the cleanup objective identified in the ROD/DD. Any system operation or monitoring requirements during this time should be termed RA (O). RC signifies that the remedy is in place and RA-O (if required) is no longer required. If there is no RA (O) phase, then the RA(C) end date will also be the RC date. Once a site is RC, environmental monitoring or review of site conditions and/or maintenance of the RA to ensure the remedy remains effective is termed Long-Term Management (LTM). "LTM" is reserved for monitoring once a site is RC, and should not be used to refer to monitoring after Remedy in Place (RIP) which is included in RA(O) (this includes sites for which the selected remedy is natural attenuation).

Installations and ERMs should review AEDB-R data inputs to ensure that data reflect the terminology described herein.

Post-remedial design phase milestones are shown in the following diagram.



6.14 NATURAL RESOURCE INJURIES (NRI)

As stated in the ODUSD (I&E) memorandum, Interim Policy on Integration of Natural Resource Injury Responsibilities and Environmental Restoration Activities (2 May 2000), the Secretary of Defense has delegated the authority as a CERCLA natural resource trustee to the head of each Component, with authority to re-delegate a representative as appropriate. Installation Commanders do not serve as natural resource trustee representatives.

At sites where the Army is acting as CERCLA Lead Agent, installations shall identify potential NRI attributable to releases of hazardous substances as they perform site characterizations. This evaluation is intended to provide relevant information regarding the current condition of the natural resources. Such data are then used to assist the installation in the assessment of the threshold criteria of "overall protection of human health and the environment" that is part of the evaluation of response alternatives. As part of the evaluation of response alternatives, installations shall assess:

- How each response alternative considered addresses the potential natural resource injuries caused by Army activities.
- Whether implementation of that particular response alternative will itself cause additional potential natural resource injury.

The installation shall notify all appropriate Trustees, which may include federal agencies, states, and Native American tribes, of potential injury to natural resources and shall coordinate documents and proposed environmental restoration activities with these Trustees. This coordination does not, however, grant the other Trustees a role in selection of a response. The installation shall also coordinate with Army-wide natural resource professionals to obtain relevant ecosystem information. Installations are encouraged, when feasible and cost-effective, to select a response that will result in the least amount of potential natural resource injury.

6.15 BRAC PROPERTY TRANSFER REQUIREMENTS

Policies and guidance for accomplishing BRAC property transfers are documented in AR 200-1 and DA Pam 200-1. The ACSIM BRAC Division and its FO accomplish those activities described in the DA Pam as responsibilities of the Army MACOMs.

Under FTC, the following BRAC property transfer requirements are to be accomplished within the BRAC ERP.

- Identify uncontaminated property that can be made available for transfer or reuse within 18 months after Congressional action on a BRAC list, as required under CERFA, and obtain regulatory concurrence on those properties. The BCT may readdress this issue later than 18 months after Congressional action on a BRAC list if the Army deems it necessary and it will facilitate the expeditious transfer of property. Identification of CERFA uncontaminated property is performed during the EBS.

- Conduct EBS, prepare FOSL and FOST, and demonstrate compliance with the notification, covenant, and regulatory and public involvement requirements of the process.

- Conduct all environmental analyses required under NEPA, to the extent practicable, within 12 months of receiving a LRA final reuse plan. In the event that the LRA does not submit a reuse plan by the time, the Army needs to initiate the NEPA analysis necessary to support a disposition decision. The Army will begin preparation of its NEPA analysis using reasonable assumptions as to the likely reuse scenario and its alternatives.

- Develop future land use assumptions based on the LRA reuse plan and in close coordination with the local community.

- Consider reuse and the RRSE framework in sequencing restoration activities at BRAC installations. In instances where reuse plans are being implemented, or are likely to be implemented, reuse should be the primary consideration for sequencing activities.

6.15.1 Determination of Operating Properly and Successfully

CERCLA §120(h) placed certain requirements on the deed transfer of U.S. Government owned property to other parties. The primary purpose of §120 (h) is to ensure that property contaminated by the federal government is environmentally restored before being conveyed outside the federal government. CERCLA §120(h)(3) requires that deeds transferring property where hazardous substances have been stored, released, or disposed of have a covenant warranting that “all

remedial action necessary to protect human health and the environment with respect to any hazardous substance remaining on the property has been taken before the date of such transfer." CERCLA §120 (h)(3) states that that all necessary actions at a site allow for property transfer "if the construction and installation of an approved remedial design has been completed and the remedy has been demonstrated to the EPA Administrator to be operating properly and successfully."

A remedial action is operating "properly" and "successfully" if it is operating as designed, the remedy is protective of human health and the environment and the system will achieve the cleanup levels or performance goals delineated in the decision document. . The success of a particular remedial action is to be evaluated based on whether it successfully addresses the particular contaminant(s) it was designed to remediate. Where more than one remedial action is required for a parcel, all such actions must operate properly and successfully, and the Army must demonstrate to the EPA that all the actions are operating properly and successfully prior to making the determination that the property is suitable for transfer.

Additional guidance on the determination of operating properly and successfully can be found in the EPA guidance "Guidance for Evaluation of Federal Agency Demonstrations that Remedial Actions are Operating Properly and Successfully Under CERCLA Section 120(h)(3), August 1996. Available on the internet at http://www.epa.gov/swerffrr/doc/896mm.htm.

6.15.2 Authority to Transfer Property before Completing Environmental Restoration Actions

The Early Transfer Authority (ETA) provided by CERCLA §120(h)(3)c allows federal property to be transferred to a non-federal entity before completion of all necessary RA. It is DoD policy that the ETA be pursued whenever doing so is beneficial both to DoD and the transferee. It is also DoD policy to encourage the transferee to undertake any required response actions. The ETA is not a conveyance authority, nor is it necessary for transfer of property to other federal agencies. The required suitability determination is documented in a Finding of Suitability for Early Transfer (FOSET). The following approvals are required for ETAs:

- For non-NPL property, the Governor of the state where the property is located must approve the request for an early transfer.
- For NPL property, the USEPA Regional Administrator, with the concurrence of the Governor of the state, must approve the early transfer.

Upon transfer of any property using ETA, the Army must submit a written notice to ODUSD (I&E) that:

- Lists the date the property was transferred.
- Describes the property was transferred using ETA, including a statement of the size of the transferred parcel in acres.
- Lists all environmental restoration sites on the transferred parcel.
- States that the installation has requested adequate funding and provided the required response action assurances.

DoD 6055.9 STD, Chapter 12, requires that an appropriate munitions response be completed before transfer or lease of property known or suspected to contain MECHowever, DoDD 6055.9-STD allows the lease or transfer of such property provided the appropriate Deputy Assistant Secretary of the Army approves the transfer or lease; the explosives safety or chemical agent (CA) safety aspects of any provisions for a transfer or lease have been submitted, through USATCES, for DDESB review and approval; and the receiver is advised of any known or suspected explosive or CA hazards present

6.15.3 Deed Covenants

CERCLA §120(h) has specific requirements for covenants that must be given when transferring property by deed outside the federal government. The Installation Legal Office must be consulted to determine when the covenants are required.

When conveying by deed to a nonfederal entity, a property where a CERCLA hazardous substance was stored for one year or more, or known to have been released, or known to have been disposed on the property, CERCLA §120(h)(3) requires two covenants in the deed (unless the property recipient is a PRP under CERCLA):

More specific explosive safety requirements are identified in The US Army Corps of Engineers Pamphlet Explosives Safety Submission (EP 385-1-95b) and the Army Explosives Safety Program (AR 385-64 and PAM 385-64).

(unless the property recipient is a PRP for contamination on the property):

The first covenant, under CERCLA §120(h)(3)(i), states that all necessary RA with respect to any hazardous substance remaining on the property has been taken before the date of transfer. In the case of early transfer, this covenant will be withheld upon conveyance, and issued instead upon completion of cleanup.

- The second covenant, under CERCLA §120(h)(3)(ii), warrants that any additional RA found to be necessary after the date of the transfer would be conducted by the United States.

In addition, the deed must contain a clause granting to the United States access rights to enter the property to conduct any future remedial activities. Further, the deed will specify that, in the event a transferee discovers hazardous substances that were remaining on the Property at the time of the conveyance, the transferee will immediately secure the site and notify the Army of the existence of the hazardous substances, and the transferee will not further disturb such hazardous substances without the written permission of the Army.

When conveying by deed to a non-federal entity, property that has been identified as "uncontaminated" (i.e., where no CERCLA hazardous substance, petroleum product, or petroleum product derivative was released or disposed) and the appropriate environmental regulator has concurred that the property is uncontaminated, where no RA has been necessary, the deed shall contain a covenant required by CERCLA §120(h)(4)(D)(i) warranting that any RA found to be necessary after the date of the transfer will be conducted by the United States. In addition, the deed must contain a clause granting to the United States access rights to enter the property to conduct any future remedial activities.

For property known or suspected to contain MEC, to include property on which there is a potential for residual explosive hazards to remain, a covenant or notice is required. At a minimum, the notice should advise of the former use of property as a military installation, that there is a possibility that MEC may exist on the property, that should MEC be found on the property it should not be moved, disturbed or destroyed, but shall immediately reported to the local police who will request DoD support of an explosives or munitions emergency.

Additional guidance on early transfer authority can be found in the ODUSD(ES) memorandum "Environmental Review Process to Obtain the Finds of Suitability Required for Use of Early Transfer Authority for Property Not on the National Priorities List", 24 Apr 1998.

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6.16 CLEANUP RESPONSIBILITIES AFTER PROPERTY TRANSFER

DoD policy outlines the circumstances under which the Army would perform additional cleanup of Army property that was transferred by deed to any entity outside of the DoD. DoD policy requirescoordination with the local community and

the integration of the land use planning and environmental restoration process to the maximum extent practicable..

If a remedy put in place prior to property transfer is no longer protective of human health and the environment, the Army is responsible for additional environmental restoration if the land use has not changed. If additional contamination attributable to Army activities is discovered after transfer, the Army is also responsible for response actions. The Army retains responsibility for contaminated property subject to the covenant requirements of CERCLA 120(h).Additional restoration necessary to address contamination attributable to Army activities and consistent with the land use assumptions used to determine the original remedy will be performed consistent with CERCLA §120(hThe Army will not conduct additional response actions to accommodate changes in land use after transfer.

The Army will make full disclosure to communities and the transferee regarding property being transferred. This shall include the basis for the Army's decision to consider a particular land use in formulating remedial alternatives, any LUCs relied upon to support the selected remedy, and the finality of the remedy selection decision. The Army will also include DoD's policy on additional restoration after transfer contained in the 25 Jul 1997, USD (A&T) Memorandum, Responsibility for Additional Environmental Cleanup after Transfer of Real Property.

The USACE Real Estate Directorate is the Army property disposal agent for BRAC. The Army property disposal agent ensures that the property transfer documents reflect use restrictions and enforcement mechanisms specified in the remedy DD. The Army reserves the right to take appropriate cleanup actions to protect human health and the environment due to action or inaction from the entity responsible for releasing contamination onto the property.

After the property transfer, the Army will conduct additional cleanup under the following conditions:

- The selected remedy fails and is no longer protective of human health and the environment.
- Additional contamination is found that is attributable to Army activities.
- Munition and explosives of concern are discovered. Under normal conditions, the initial response will be by Explosives Ordnance Disposal personnel who will respond to local law enforcement requests for support as an explosives or munitions emergency response under the Environmental Protections Agency's Military Munitions Rule. If an assessment of the discovery indicates that a follow-on response is required, the Army will work with the regulatory community to determine the appropriate response to address the discovery.
- Regulatory requirements are revised to reflect new scientific/health data establishing the remedy in effect to be ineffective.

After the property transfer, the Army will not conduct nor pay for additional cleanup when the additional cleanup facilitates a land use prohibited by deed restrictions or other appropriate LUCs or there is a release onto the property resulting from a violation of a deed restriction or other restrictive covenant.

The Army will initiate actions to revise deed restrictions or other LUCs as appropriate when the remedy has achieved cleanup level and restrictions are no longer required. The Army will cooperate with the transferee to revise and remove restrictions to facilitate a broader range of land uses when the transferee undertakes and pays for efforts required which fully demonstrate the continuance of protection of human health and the environment. The transferee must apply to the Army disposal agent for revision or removal of deed restrictions.

The Army will disclose to the community or LRA the Army's intent to consider land use expectations in the remedy selection process. Public notifications ordinarily made throughout the restoration process will also include full disclosure of the assumed land use used in the remedy selection process.

6.17 CLOSE OUT

Installations should plan and complete all environmental restoration activities in accordance with DPG goals. BCTs will be closed out when the following requirements and activities have been accomplished:

- The final RA for the installation is in place (construction and installation of an approved RD) and the remedy has been demonstrated to be operating properly and successfully.
- Reuse has been approved for all properties identified for transfer.
- All environmental analyses required by NEPA have been completed and no further restoration is required.
- All FOSTs have been completed.

Site closure under BRAC reflects the requirements associated with real property transfer. In order to facilitate reuse-planning efforts, "uncontaminated" installation property must be identified as defined by the CERFA. No property can be conveyed by deed or can be leased until a FOST, FOSET or a FOSL has been signed.

The BCT will take the following actions before it is adjourned:

- To preserve institutional knowledge and to provide an accurate historical perspective for future reference the BCT shall prepare and submit to the BRAC Division a final "Closeout BCP" that:

- Summarizes the environmental restoration activities that have occurred, including summaries of individual site histories describing the type and concentration of the contamination or MEC that was present (and if appropriate, that remains) at the site, the remedy used, and any required future management activities.

- Identifies responsibilities for environmental restoration conditions and activities continuing after property transfer.

- Formally notify the RAB and LRA of the BCT adjournment. This notification shall include a complete list of points of contact for environmental restoration and support of reuse responsibilities with DoD and other federal, state or tribal, or local agencies.

- Submit a final BCP abstract to the Deputy Assistant Secretary of the Army for Installation and Housing (SAILE (I&H)) and ODUSD (I&E) that includes a statement that this is the final BCP Abstract submission, the date of the BCT adjournment, and the notification provided to the RAB and LRA (with the accompanying point of contact documentation).

Chapter 7
Available BRAC Environmental Guidance

For a list of available BRAC Environmental guidance used in the preparation of this document, see Appendix J.

All major DOD environmental regulations, policies and guidance are available on the Internet at **http://www.denix.osd.mil**. *For Army publications visit* **http://www.usapa.army.mil/gils/.**

Appendix A
Army BRAC Installations

BRAC 1

Alabama AAP, AL

ARL-Watertown, MA

Bennett ARNG Training Site, CO

Cameron Station, VA (BCT Adjourned)

Camp Navajo, AZ

Cape St. George, FL

Coosa River Storage Annex, AL

Defense Mapping Agency-Herndon, VA

Fort Des Moines, IA

Fort Douglas, UT

Fort George G. Meade, MD

Fort Holabird, MD

Fort Sheridan, IL

Fort Wingate, NM

Gaithersburg Research Facility, MD

Hamilton Army Air Field, CA

Indiana AAP, IN

Jefferson Proving Ground, IN

Kapalama Military Reservation, HI

Lexington Facility-LBAD, KY

Military Ocean Terminal, New Orleans, LA

Nike Aberdeen, MD

Nike Kansas City 30, MO

Pontiac Storage Activity, MI

Presidio of San Francisco, CA (BCT Adjourned)

Pueblo Chemical Depot, CO

Tacony Warehouse, PA

Umatilla Chemical Depot, OR

53 Family Housing Sites

BRAC 91

ARL-Woodbridge, VA (BCT Adjourned)

Fort Benjamin Harrison, IN (BCT Adjourned)

Fort Devens, MA

Presidio of Monterey, CA

Sacramento Army Depot, CA

BRAC 93

Fort Monmouth, NJ

Tooele Army Depot, UT

Vint Hill Farms Station, VA

BRAC 95

Big Coppitt Key, FL

C.E. Kelly Support Facility BRAC, PA

Camp Bonneville, WA

Camp Kilmer, NJ

Camp Pedricktown, NJ

Defense Distribution Depot, Ogden, UT

Detroit Arsenal Tank Plant, MI

East Fort Baker, CA

Fitzsimmons Army Medical Center, CO

Fort Bragg Recreation Center #2, NC

Fort Chaffee, AR

Fort Dix, NJ

Fort Holabird, MD

Fort Hunter Liggett, CA

Fort Indiantown Gap, PA

Fort McClellan, AL

Fort Missoula, MT

Fort Pickett, VA

Fort Ritchie, MD

Fort Totten, NY

Hingham Annex, MA

Letterkenny Army Depot, PA

Lompoc Disciplinary Barracks, CA

Military Ocean Terminal, Bayonne, NJ

Oakland Army Base, CA

Red River Army Depot, TX

Rio Vista Reserve Training Area, CA

Savanna Depot Activity, IL

Seneca Army Depot, NY

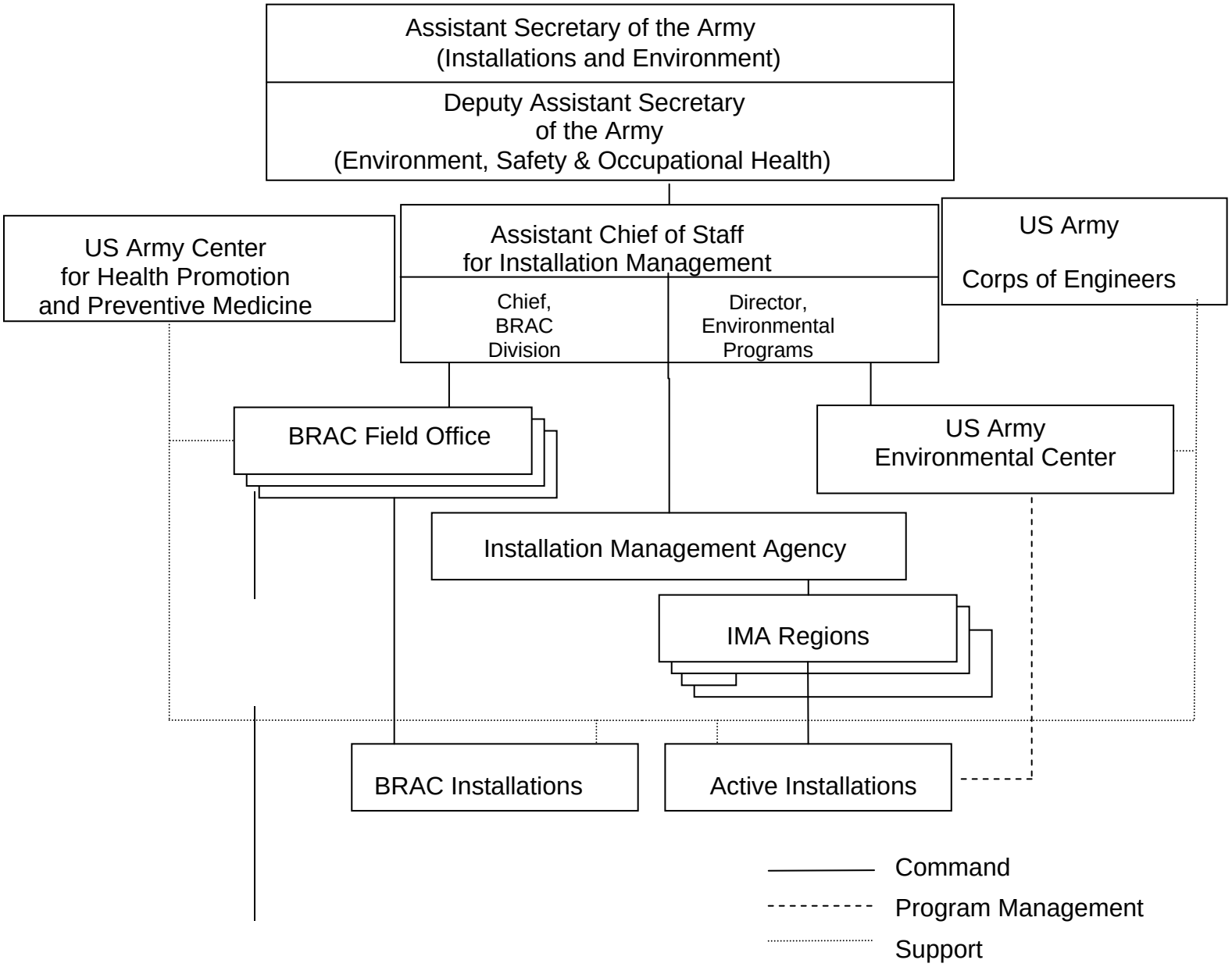
Sierra Army Depot, CA

Stratford Army Engine Plant, CT

Sudbury Training Annex, MA

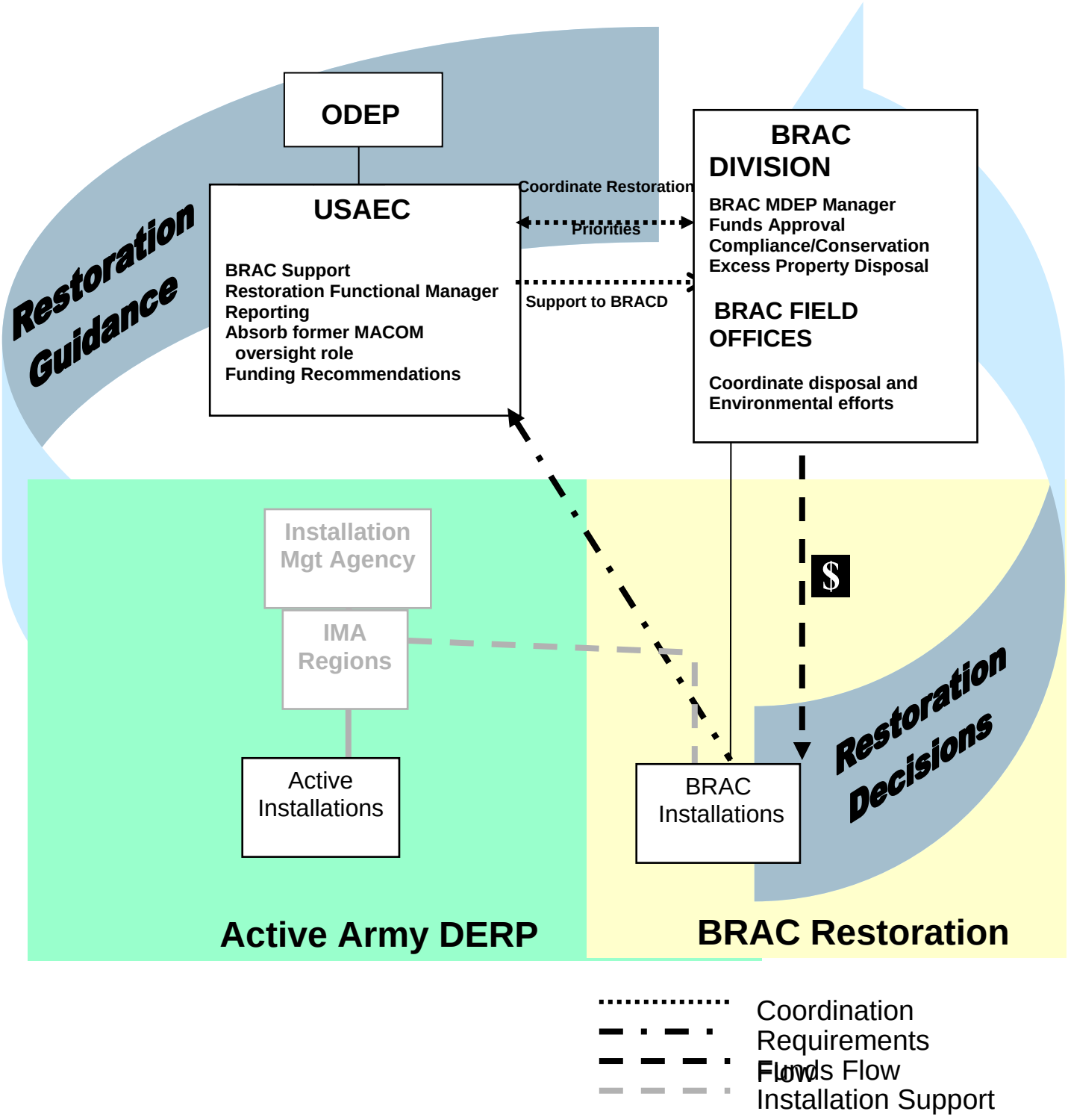
USA Bellmore Maintenance Facility, NY

Appendix B
Department of the Army Command Structure



Appendix C

Restoration Concept



Appendix D
Examples of Restoration Activities Eligible and Ineligible for BRAC Funding

ELIGIBLE "CLEANUP" PROJECTS

- Investigations to identify, confirm, and determine the risk to human health and the environment resulting from past DoD contamination. This also includes feasibility studies or engineering evaluation and cost analysis (EE/CA); RA plans and designs; and removal or RAs.
- Expenses associated with cooperative multi-party cleanup plans and activities litigation expenses.
- The RAs to protect or restore (not enhance) natural resources injured by contamination from past hazardous waste disposal activities.
- Cleanup of low-level radioactive waste sites which have been identified as restoration sites.
- Management expenses associated with the BRAC ERP. Management expenses are those overhead costs required for adequate program oversight and management.
- Operation and maintenance costs for remedial and monitoring systems.
- Immediate actions necessary to address health and safety concerns resulting from past Army contamination such as providing alternate water supplies or treatment of contamination drinking water.
- Studies to locate abandoned underground tanks, activities to determine whether a release has occurred, and clean up of contamination.
- Response to releases from in service tanks discovered during initial integrity testing (leak detection monitoring) per 40 CFR 280 where testing was conducted prior to the regulatory date of December 22, 1993.
- The CERCLA response actions and eligible RCRA corrective actions identified in FFA/IAGs.
- Corrective actions at SWMUs needed because of past Army activities unless the SWMU is subject to RCRA closure requirements.

- Support services provided by another agency in accordance with 10 USC 2701(d).
- Fines and penalties imposed by regulatory agencies assessed under the authority of the Federal Facilities Compliance Act associated with restoration activities. (Note: These fines must be identified in the BES for the budget year.)
- Munitions responses to UXO, DMM or MC where the release occurred prior to 30 September 2000 and the site was identified and included in DSERTS (now AEDB-R) prior to 30 September 2002 and was not classified as RC.

ELIGIBLE "CLOSURE-RELATED COMPLIANCE" PROJECTS

- Remediation and closure of active underground tanks in support of property transfer.
- Costs of testing and disposing of PCB transformers in support of property transfer.
- Costs of surveys, containment, removal or disposal of asbestos and lead based paint.

ELIGIBLE MMRP PROJECTS

- Munitions responses to UXO, DMM or MCwhere the release occurred prior to 30 Sep 02 and the site's CTC estimate is more than 50 per cent attributed to UXO, DMM or MC.
- Archive Search Reports, investigations and responses at non-operational ranges and sites deemed eligible for the MMRP during the Army's Phase 3 Range Inventory Program
- Reasonable costs for munitions response in support of reuse or property transfer. The Army will work with property recipients to design a response that will allow the land's use in the agreed uponmanner and athat re technically feasible and affordable.

INELIGIBLE CLEANUP OR CLOSURE-RELATED RESTORATION ACTIVITIES

- Closing or capping sanitary landfills.
- Construction of hazardous waste storage, transfer, treatment or disposal facilities, except when part of a restoration RA.
- Testing or repair of active underground tanks and costs of replacing leaking underground tanks.

- Costs of storing or replacing PCB transformers and testing of PCB transformers not to be removed under BRAC for property reuse.
- Costs of spill prevention and containment measures for operating equipment and facilities.
- Costs of operation, maintenance or repair to hazardous waste treatment, storage or disposal facilities which are in use (i.e. regulated or permitted), except when part of a RA or for closure.
- Activities responding to UXO, DMM or MC where the release occurred on or after 1 Oct 00.
- Activities responding to UXO, DMM or MC where the site was listed in DSERTS prior to 30 Sep 00 and it was classified as response complete.
- Archive Search Reports, investigations and responses at non-operational ranges and sites deemed eligible for the MMRP during the Army's Range Inventory Program.

INELIGIBLE MMRP PROJECTS

- Activities responding to MEC or MC where the release occurred on or after 1 Ocober 2002.
- Activities responding to MEC or MC at locations outside the United States.
- Investigations and responses to munitions constituents (explosives) released to the soil, surface water, sediments or groundwater as a result of ammunition or explosives production or manufacturing.
- Response activities for MEC or MC resulting from combat operations.
- Response activities for MEC or MC at operational ranges.
- Response activities for MEC or MC at facilities that are used for or were permitted for the treatment or disposal of military munitions.

Appendix E
Table of Eligibility

CLEANUP ACTIVITIES ELIGIBLE UNDER THE UNDER THE BRAC PROGRAM			
	Component BRAC ER Funds		
Activity	Installation Restoration	Munitions Response	BD/DR
Installation Restoration program category activities at sites where the release occurred prior to October 17, 1986.	*E*	NE	NE
Installation Restoration program category activities at sites where the release occurred between October 17, 1986, and September 30, 2000, and where the site was identified and included in the DSERTS prior to September 30, 2000.	*E*	NE	NE
Installation Restoration program category activities where the release occurred after October 17, 1986, and where the site was not identified and include in the DSERTS prior to September 30, 2000.	NE	NE	NE
Installation Restoration program category activities involving military munitions (i.e., UXO or WMM) or the chemical residues of munitions activities where: • *The release occurred prior to September 30, 2000; and* • *The site release is not at a FUDS, operational range, active munitions demilitarization facility, or active WMM treatment or disposal unit; and* • The site was identified and included in the RMIS prior to September 30, 2000, and was not classified as "response complete."	*E*	NE	NE
Military Munitions Response program category activities where: the release occurred prior to September 30, 2002; the release is not at a FUDS, operational range, active munitions demilitarization facility, or active WMM treatment or disposal unit that operated after September 30, 2002, and the site was not identified or included in the DSERTS prior to September 30, 2000.	NE	*E*	NE
Military Munitions Response program category activities at operational ranges, active munitions demilitarization facilities, or active WMM treatment or disposal units, or at non-range locations where the release occurs after September 30, 2002.	NE	NE	NE
Building Demolition/Debris Removal program category activities to address unsafe buildings or structures unused since October 17, 1986, where the activities are an integral part of actions under the Installation Restoration or Military Munitions Response program categories	NE	NE	*E*
Building Demolition/Debris Removal program category activities to address unsafe buildings or structures unused since October 17, 1986, where the activities are not an integral part of actions under the Installation Restoration or Military Munitions Response program categories. Components must be granted approval by ODUSD (I&E) before funds may be programmed.	NE	NE	*E*
Building Demolition/Debris Removal program category activities to address unsafe buildings or structures used since October 17, 1986.	NE	NE	NE
KEY: E= Eligible NE= Ineligible			

Appendix F
Definitions for the Military Munitions Response Program

Anomaly Avoidance. Techniques employed on property known or suspected to contain MEC, or CWM in OTM configurations to avoid contact with potential surface or subsurface explosive or CA hazards, to allow entry to the area for the performance of required operations.
Chain of Custody. The activities and procedures taken throughout the inspection, re-inspection and documentation process to maintain positive control of Material Potentially Presenting an Explosive Hazard (MPPEH) to ensure the veracity of the process used to determine the status of material as to its explosive hazard. This includes all such activities from the time of collection through final disposition.
Chemical Agent (CA). CA means an agent that, through its chemical properties, produces lethal or other damaging effects on human beings, except that such term does not include riot control agents, chemical herbicides, smoke and other obscuration materials.
Chemical Agent (CA) Hazard. A condition where danger exists because CA is present in a concentration high enough to present potential unacceptable effects (e.g., death, injury, damage) to people, operational capability, or the environment.
Chemical Warfare Material (CWM). Items generally configured as a munition containing a chemical substance that is intended to kill, seriously injure, or incapacitate a person through its physiological effects. CWM includes V- and G-series nerve agents or H-series (mustard) and L-series (lewisite) blister agents in other-than-munition configurations; and certain industrial chemicals (e.g., hydrogen cyanide (AC), cyanogen chloride (CK), or carbonyl dichloride (called phosgene or CG)) configured as a military munition. Due to their hazards, prevalence, and military-unique application, chemical agent identification sets (CAIS) are also considered CWM. CWM does not include: riot control devices; chemical herbicides; industrial chemicals (e.g., AC, CK, or CG) not configured as a munition; smoke and flame producing items; or soil, water, debris or other media contaminated with low concentrations of chemical warfare agents where no CA hazards exist.
Chemical Warfare Material (CWM) Response. Munitions responses and other responses to address the chemical safety; explosives safety, when applicable; human health; or environmental risks presented by CWM regardless of configuration. (See munitions response.)
Construction Support. Assistance provided by DoD EOD or UXO-qualified personnel and/or by personnel trained and qualified for operations involving CWM during intrusive construction activities on property known or suspected to contain MEC, or CWM in OTM configurations to ensure the safety of personnel or resources from any potential explosive or CA hazards.
Chemical Agent (CA) Safety. A condition where operational capability and readiness, people, property, and the environment are protected from the unacceptable effects or risks of a mishap involving chemical warfare material (CWM).

Defense Sites. Locations that are or were owned by, leased to, or otherwise possessed or used by the Department of Defense. The term does not include any operational range, operating storage or manufacturing facility, or facility that is used for or was permitted for the treatment or disposal of military munitions. (10 U.S.C. 2710(e)(1))
Discarded Military Munitions (DMM). 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. (10 U.S.C. 2710(e)(2))
Disposal. End of life tasks or actions for residual materials resulting from demilitarization or disposition operations.
Disposition. The process of reusing, recycling, converting, redistributing, transferring, donating, selling, demilitarizing, treating, destroying, or fulfilling other life-cycle guidance, for DoD property.
Documentation of the Explosives Safety Status of Material. Documentation recording that material: (1) does not present an explosive hazard and is consequently safe for unrestricted transfer within or release from DoD control or (2) is MPPEH, with the stated known or suspected explosive hazards, and is consequently is only transferable or releasable to a qualified receiver. This documentation must be signed by a technically qualified individual with direct knowledge of: (1) the results of both the 100 percent inspection and 100 percent re-inspection, and (2) the chain-of-custody of the material originally classified as MPPEH. This certification is followed by a verification signed by a technically qualified individual who inspects the material on a sampling basis (sampling procedures are determined by DoD entity that is generating the MPPEH).
Environmental Regulators and Safety Officials. Include, but may not be limited to environmental regulators, environmental coordinators or hazardous material coordinators, law enforcement officers, and safety personnel of the US Environmental Protection Agency (USEPA), American Indians and Alaska Natives, other Federal Land Managers, and/or the States. When appropriate, public health officials of various agencies may also be involved.
Explosive Hazard. A condition where danger exists because explosives are present that may react (e.g., detonate, deflagrate) in a mishap with potential unacceptable effects (e.g., death, injury, damage) to people, property, operational capability, or the environment.
Explosive Ordnance Disposal (EOD). The detection, identification, on-site evaluation, rendering safe, recovery, and final disposal of unexploded ordnance and of other munitions that have become hazardous by damage or deterioration.
Explosive Ordnance Disposal (EOD) Personnel. Military personnel who have graduated from the Naval School, Explosive Ordnance Disposal; are assigned to a military unit with a Service-defined EOD mission; and meet Service and assigned unit requirements to perform EOD duties. EOD personnel have received specialized training to address explosive and certain CA hazards during both peacetime and wartime. EOD personnel are trained and equipped to perform Render Safe Procedures (RSP) on nuclear, biological, chemical, and conventional munitions, and on improvised explosive devices.
Explosive Ordnance Disposal (EOD) Unit. A military organization constituted by proper authority; manned with EOD personnel; outfitted with equipment required to perform EOD functions; and assigned an EOD mission.
Explosives or Munitions Emergency Response. All immediate response activities by an explosives and munitions emergency response specialist to control, mitigate, or eliminate the actual or potential threat encountered during an explosives or munitions emergency. An explosives or munitions emergency response may include in-place render-safe procedures, treatment or destruction of the explosives or munitions, and/or transporting those items to another location to be rendered safe, treated, or destroyed. Any reasonable delay in the completion of an explosives or munitions emergency response caused by a necessary, unforeseen, or uncontrollable circumstance will not terminate the explosives or munitions emergency. Explosives and munitions emergency responses can occur on either public or private lands and are not limited to responses at RCRA facilities. (Military Munitions Rule, 40 CFR 260.10)
Explosives Safety. A condition where operational capability and readiness, people, property, and the environment are

protected from the unacceptable effects or risks of potential mishaps involving military munitions.

Interim Holding Facility (IHF). A temporary storage facility designed to hold recovered chemical warfare material (RCWM) pending transportation for off-site treatment or storage, or on-site treatment.

Land Use Controls (LUC). LUC are physical, legal, or administrative mechanisms that restrict the use of, or limit access to, real property to manage risks to human health and the environment. Physical mechanisms encompass a variety of engineered remedies to contain or reduce contamination and/or physical barriers to limit access to real property, such as fences or signs.

Long-term Management (LTMgt). The period of site management (including maintenance, monitoring, record keeping, 5-year reviews, etc.) initiated after response (removal or remedial) objectives have been met (i.e., after Response Complete).

Material Potentially Presenting an Explosive Hazard (MPPEH). Material potentially containing explosives or munitions (e.g., munitions containers and packaging material; munitions debris remaining after munitions use, demilitarization, or disposal; and range-related debris); or material potentially containing a high enough concentration of explosives such that the material presents an explosive hazard (e.g., equipment, drainage systems, holding tanks, piping, or ventilation ducts that were associated with munitions production, demilitarization or disposal operations). Excluded from MPPEH are munitions within DoD's established munitions management system and other hazardous items that may present explosion hazards (e.g., gasoline cans, compressed gas cylinders) that are not munitions and are not intended for use as munitions.

Military Munitions. Military munitions means all ammunition products and components produced for or used by the armed forces for national defense and security, including ammunition products or components under the control of the Department of Defense, the US Coast Guard, the US Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives, and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components of the above.

The term does not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components, other than non-nuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) have been completed. (10 U.S.C. 101(e)(4)(A) through (C))

Minimum Separation Distance (MSD). MSD is the distance at which personnel in the open must be from an intentional or unintentional detonation.

Mutual Agreement. A meeting of the minds on a specific subject, and a manifestation of intent of the parties to do or refrain from doing some specific act or acts. Inherent in any mutual agreement or collaborative process are the acknowledgement of each member's role in the process and their differing views of their authorities. The mutual agreement process will provide a means of resolving differences without denying the parties an opportunity to exercise their respective authorities should mutual agreement fail to be achieved.

Munitions and Explosives of Concern (MEC). This term, which distinguishes specific categories of military munitions that may pose unique explosives safety risks means: (A) Unexploded ordnance (UXO), as defined in 10 U.S.C. 101(e)(5)(A) through (C); (B) Discarded military munitions (DMM), as defined in 10 U.S.C. 2710(e)(2); or (C) Munitions constituents (e.g., TNT, RDX), as defined in 10 U.S.C. 2710(e)(3), present in high enough concentrations to pose an explosive hazard.

Munitions Constituents (MC). Any 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. (10 U.S.C. 2710).

Munitions Debris. Remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization, or disposal.

Munition with the Greatest Fragmentation Distance (MGFD). The munition with the greatest fragment distance that is reasonably expected (based on research or characterization) to be encountered in any particular area.

Munitions Response. Response actions, including investigation, removal actions and remedial actions to address the explosives safety, human health, or environmental risks presented by unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC).

Munitions Response Area (MRA). Any area on a defense site that is known or suspected to contain UXO, DMM, or MC. Examples include former ranges and munitions burial areas. A munitions response area is comprised of one or more munitions response sites.

Munitions Response Site (MRS). A discrete location within an MRA that is known to require a munitions response.

One Percent Lethality Distance. A distance calculated from a given CA MCE and meteorological conditions (temperature, wind speed, Pasquill stability factor) and established as the distance at which dosage from that MCE agent release would be 150 mg-min/m^3 for H and HD agents, 75 mg-min/m^3 for HT agent, 150 mg-min/m^3 for Lewisite, 10 mg-min/m^3 for GB agent, 4.3 mg-min/m^3 for VX vapor, and 0.1 mg-min/m^3 for inhalation and deposition of liquid VX.

On-call Construction Support. Support provided, on an as needed basis, by DoD EOD or UXO-qualified personnel and/or by personnel trained and qualified for operations involving CWM during intrusive construction activities on property known or suspected to contain MEC or CWM in OTM configurations, where the probability of encountering such has been determined to be low. This support can respond from off-site when called, or be on-site and available to provide required construction support.

On-site Construction Support. Dedicated support provided by DoD EOD or UXO-qualified personnel and/or by personnel trained and qualified for operations involving CWM during intrusive construction activities on property known or suspected to contain MEC, or CWM in OTM configurations, where the probability of encountering such has been determined to be moderate to high.

On-call UXO Construction Support. Support provided, on an as needed basis, by DoD EOD or UXO-qualified personnel during intrusive construction activities on property known or suspected to contain UXO or other munitions that have experienced abnormal environments where the probability of encountering such has been determined to be low. This support can respond from off-site when called, or be on-site and available to provide required construction support.

On-site UXO Construction Support. Dedicated support provided by DoD EOD or UXO-qualified personnel during construction activities on property known or suspected to contain UXO or other munitions that have experienced abnormal environments where the probability of encountering such has been determined to be moderate to high.

On-the-Surface. A situation in which UXO, DMM or CWM are: (A) entirely or partially exposed above the ground surface (i.e., the top of the soil layer); or (B) entirely or partially exposed above the surface of a water body (e.g., as a result of tidal activity).

Open Burn (OB). An open-air combustion process by which excess, unserviceable, or obsolete munitions are destroyed to eliminate their inherent explosive hazards.

Open Detonation (OD). An open-air process used for the treatment of excess, unserviceable or obsolete munitions whereby an explosive donor charge initiates the munitions being treated.
Operational Range. A range that is under the jurisdiction, custody, or control of the Secretary of Defense and that is used for range activities; or although not currently being used for range activities, that is still considered by the Secretary to be a range and has not been put to a new use that is incompatible with range activities. (10 U.S.C. 101(e)(3)(A) and (B)). Also includes "military range," "active range," and "inactive range" as those terms are defined in 40 CFR §266.201. (See reference (f)).
Primary Explosives. Primary explosives are highly sensitive compounds that are typically used in detonators and primers. A reaction is easily triggered by heat, spark, impact or friction. Examples of primary explosives are lead azide and mercury fulminate.
Public Access Exclusion Distance (PAED). The PAED is defined as longest distance of the hazardous fragment distance, IBD for overpressure, or the One Percent Lethality Distance. For siting purposes, the PAED is analogous to the IBD for explosives; therefore, personnel not directly associated with the chemical operations are not to be allowed within the PAED.
Qualified Receiver. Entities that have personnel who are, or individuals who are, trained and experienced in the identification and safe handling of used and unused military munitions, and any known or potential explosive hazards that may be associated with the MPPEH they receive; and are licensed and permitted or otherwise qualified to receive, manage, and process MPPEH.
Range. A designated land or water area that is set aside, managed, and used for range activities of the Department of Defense. The term includes firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, electronic scoring sites, buffer zones with restricted access, and exclusionary areas. The term also includes airspace areas designated for military use in accordance with regulations and procedures prescribed by the Administrator of the Federal Aviation Administration. (10 U.S.C. 101(e)(1)(A) and (B))
Range activities. Research, development, testing, and evaluation of military munitions, other ordnance, and weapons systems; and the training of members of the armed forces in the use and handling of military munitions, other ordnance, and weapons systems. (10 U.S.C. 101(e)(2)(A) and (B))
Range-Related Debris. Debris, other than munitions debris, collected from operational ranges or from former ranges (e.g., targets).
Render Safe Procedures (RSP). The portion of EOD procedures that involves the application of special disposal methods or tools to interrupt the functions or separate the essential components of UXO to prevent an unacceptable detonation.
Secondary Explosives. Secondary explosives are generally less sensitive to initiation than primary explosives and are typically used in booster and main charge applications. A severe shock is usually required to trigger a reaction. Examples are TNT, cyclo-1,3,5-trimethylene-2,4,6-trinitramine (RDX or cyclonite), HMX, and tetryl.
Small Arms Ammunition. Ammunition, without projectiles that contain explosives (other than tracers), that is .50 caliber or smaller, or for shotguns.
Team Separation Distance (TSD). The distance that munitions response teams must be separated from each other during munitions response activities involving intrusive operations.
Technical Escort Unit (TEU). A DoD organization manned with specially trained personnel that provide verification, sampling, detection, mitigation, render safe, decontamination, packaging, escort and remediation of chemical, biological and industrial devices or hazardous material.

Technology-aided Surface Removal. A removal of UXO, DMM or CWM on the surface (i.e., the top of the soil layer) only, in which the detection process is primarily performed visually, but is augmented by technology aids (e.g., hand-held magnetometers or metal detectors) because vegetation, the weathering of UXO, DMM or CWM, or other factors make visual detection difficult.
Time Critical Removal Action (TCRA). Removal actions where, based on the site evaluation, a determination is made that a removal is appropriate, and that less than 6 months exists before on-site removal activity must begin. (40 CFR 300.5)
Unexploded Ordnance (UXO). Military munitions that (A) have been primed, fuzed, armed, or otherwise prepared for action; (B) have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and (C) remain unexploded either by malfunction, design, or any other cause. (10 U.S.C. 101(e)(5)(A) through (C)))
UXO Avoidance. Techniques employed on property known or suspected to contain UXO or other munitions that have experienced abnormal environments, to avoid contact with potential explosive or CA hazards, to allow entry to the area for the performance of required operations.
UXO Technicians. Personnel who are qualified for and filling Department of Labor, Service Contract Act, Directory of Occupations, contractor positions of UXO Technician I, UXO Technician II, and UXO Technician III.
UXO-Qualified Personnel. Personnel who have performed successfully in military EOD positions, or are qualified to perform in the following Department of Labor, Service Contract Act, Directory of Occupations, contractor positions: UXO Technician II, UXO Technician III, UXO Safety Officer, UXO Quality Control Specialist, or Senior UXO Supervisor.
Venting. Exposing any internal cavities of MPPEH, to include training or practice munitions (e.g., concrete bombs), using DDESB- or DoD Component-approved procedures, to confirm that an explosive hazard is not present.

[1] This list expands the list of definitions contained in the 28 Oct 03 memorandum, DASA(ESOH), Subject: Definitions Related to Munitions Response Actions.

Appendix G

Policy for Staffing and Approving Decision Documents (DD)[1]

1. References:

a. DA Pamphlet 200-1, January 2002.

b. Base Realignment and Closure Program Management Plan, April 1999.

c. Installation Restoration Program Management Plan, March 1999.

d. Management Guidance for the Defense Environmental Restoration Program (DERP), ODUSD (I&E), 28 September 2001.

2. This policy applies to decision documents (DD), including ROD, Interim RODs, Action Memoranda, and Statements of Basis for response or corrective actions taken in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the National Contingency Plan; Executive Order 12580; and the Resource Conservation and Recovery Act (RCRA).

3. Decision documents are required to document response or corrective actions that are DERP eligible per reference 1c, including interim remedial actions, remedial actions, removals, or implementation of land use controls that Army imposes as part of a remedy to address a CERCLA risk or eligible RCRA corrective action. Emergency response actions shall be documented after the fact. All DDs must be included in the Administrative Record for the installation.

4. Policy: Approval thresholds for DDs are described below:

a. The Chief, BRAC FO is the approval authority for DDs that have a selected remedy with a present worth cost estimate of $2 million or less.

b. The Chief, Base Realignment and Closure (BRAC) Division (DAIM-BD) 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. The Chief, BRAC Division may delegate this approval authority for Installation Restoration Program category responses to the Chiefs of BRAC FO with the concurrence of the Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health) (DASA(ESOH)). Approval authority for DDs for Military Munitions Response Program category responses may not be delegated.

c. The ACSIM is the approval authority for DDs that have a selected remedy with a present worth cost estimate of more than $10 million.

d. For DDs of interest to the Army Secretariat, the DASA(ESOH) may elect to co-sign the DD.

5. Staffing Procedures for BRAC and excess installations (Schematic showing the process for staffing is at TAB A):

a. Regardless of approval level, before signing or forwarding decision documents for approval, the Chief, BRAC FO shall staff DDs with their environmental, legal, and public affairs offices. They shall also obtain coordination from USAEC, the US Army Center for Health Promotion and Preventive Medicine (USACHPPM), and, for Military Munitions Response Program (MMRP) category responses with explosive hazards, the US Army Technical Center for Explosive Safety (USATCES).

b. DDs with costs of more than $2 million requiring ACSIM or Chief, BRAC Division approval: Submit six copies of final DDs through the appropriate BRAC FO, with an information copy to the appropriate Installation Management Agency (IMA) region, to. HQDA, (DAIM-BD/COL ROBERT DERRICK), ACSIM, 600 ARMY PENTAGON, WASH DC 20310-0600. The DAIM-BD will provide copies to the appropriate Headquarters, Department of Army (HQDA) Staff elements for staffing.

c. The staffing matrix at TAB B shall be completed and included when forwarding a DD to the Chief, BRAC Division or ACSIM for approval.

d. Chief, BRAC FO shall provide information copies of all DDs being staffed to the appropriate supporting Garrison Commander.

6. The Environmental Law Division (ELD), Office of The Judge Advocate General (DAJA-EL) is available to assist the installations and BRAC FO's legal staffs. If installations or BRAC FOs identify legal concerns, they are encouraged to consult with ELD when staffing draft DDs.

7. In addition to placing a copy of all signed DDs in the installation's Administrative Record, installations shall provide one paper and one electronic copy of signed DDs to the USAEC, SFIM-AEC-CD, 5179 Hoadley Road, Aberdeen Proving Ground, MD 21010-5401 for regular mail or USAEC, SFIM-AEC-CD, E4480 Beal Road, Aberdeen Proving Ground, MD 21010-5401 for FedX. In addition, the approving headquarters shall prepare a short executive summary of all signed DDs and send the executive summary via email to the Chief of the Cleanup Division, Office of the Director of Environmental Programs (ODEP); to the Assistant for Restoration, Office of the DASA(ESOH); and to the appropriate supporting garrison and IMA Region. The executive summary should describe the selected response action and its relationship to other cleanup actions/operable units. It should also contain such information as the degree of risk reduction, present value cost of the remedy and the contribution to the installation CTC for all remedies, amounts and fiscal year(s) that funds are required for remedial action

design and construction, duration of any remedial action operations, land use controls required and means for maintaining them, and other potential remedies considered.

8. Responsibilities: BRAC and excess installations and BRAC FOs shall ensure that DDs that commit the Army to future expenses pass the following checks:

a. The project must be DERP eligible per reference 1d.

b. The BCP for BRAC installations or the Installation Action Plan for excess installations contains funding for the project(s), and the costs are accurately described in the installation's CTC report. DAIM-BD as program manager for BRAC Cleanup Account funds must ensure that adequate funding exists within the President's Budget (budget years) and Future Year Defense Plan (program years) to support the project(s).

c. The project(s) are consistent with priorities for relative risk reduction and property transfer as set forth in program guidance.

9. Suspense:

a. Transmittal memoranda should advise the chain of command of any negotiated or imposed deadlines and allow sufficient time for staffing at each level. To assist in planning, TAB A provides the time required for staffing at each stage. BRAC and excess installations and BRAC FO should plan on a minimum of two to four weeks to obtain approval after receipt of a complete DD packet at HQDA. They should also ensure regulators are aware of these time constraints during negotiations.

b. For Fast Track Cleanup or in situations when an Interagency Agreement or Federal Facilities Agreement deadline might be missed because of staffing requirements for DDs with costs over $10 million:

(1) The BRAC FO should convene a conference call with the USAEC restoration manager and installation, US Army Corps of Engineer district (when appropriate), and DAIM-BD representatives.

(2) The conference call should result in an understanding of any deadlines and if and how the process will be expedited.

(3) The BRAC and excess installation should send, via e-mail (PDF file format for smaller documents) or overnight or next day commercial delivery, a copy of the final DD to DAIM-BD to initiate the HQDA staffing process.

10. Changes:

a. BRAC FO chiefs may approve Explanation of Significant Differences (ESD) and ROD amendments for RODs originally approved by HQDA, if the ESD or ROD amendment does not increase the cost of the project by more than $2 million. Those

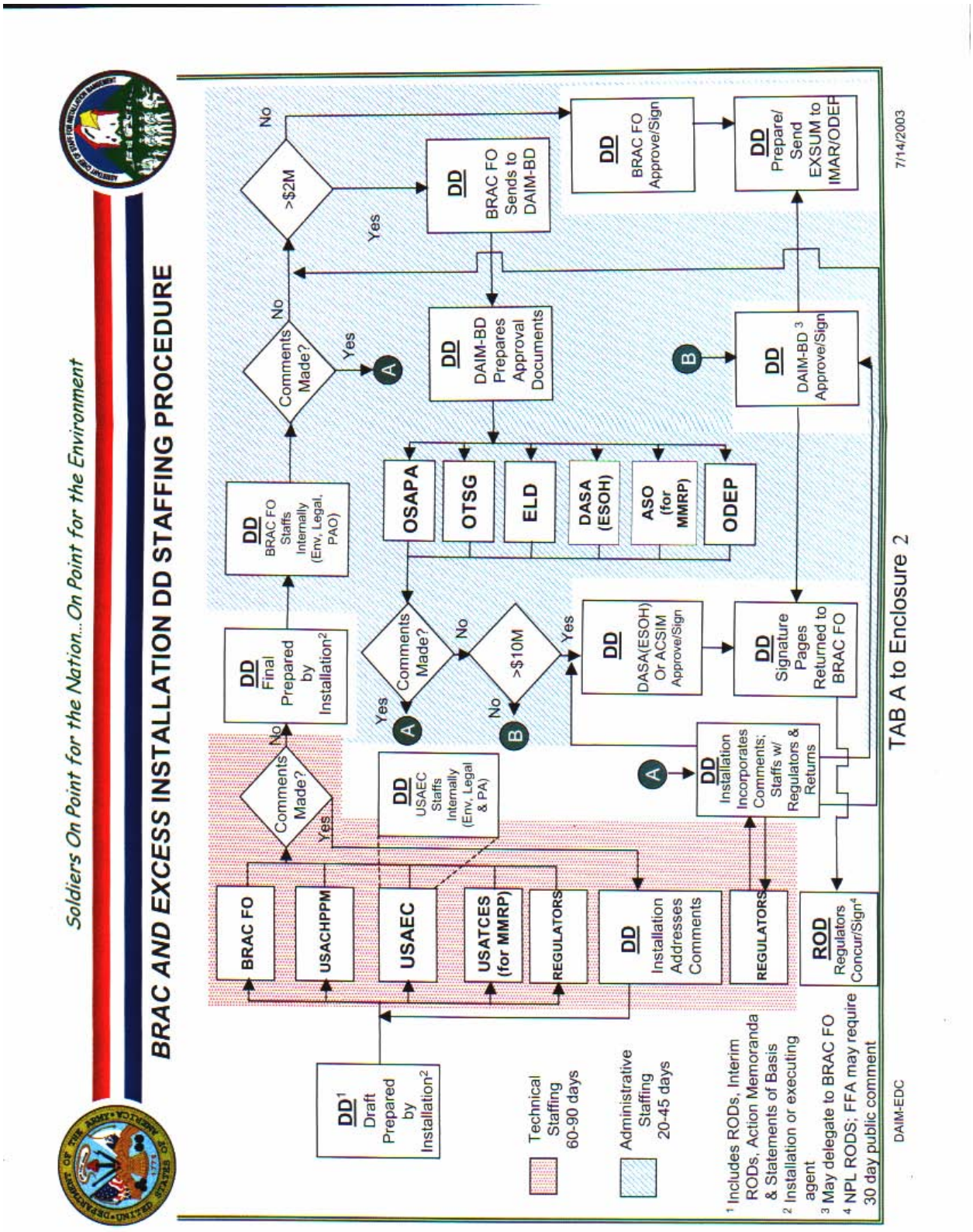
ESDs or ROD amendments that that increase the cost of the project by more than $2 million shall be forwarded to DAIM-BD or ACSIM, as appropriate, for approval in accordance with paragraph 5 above.

b. The actual cost of the remedy may exceed the authority of the original approval authority (e.g., $1.5 million ROD approved by BRAC FO; actual cost exceeds $2 million) due to, for example, a change in project scope or remedy cost. In that circumstance, the BRAC FO shall provide the next higher-level approval authority (DAIM-BD or ACSIM, as appropriate) information regarding the original scope and cost estimate of the project and the nature, extent, and costs of any changes thereto.

11. This guidance supersedes all previous guidance on this subject, including that in references 1a, 1b, and 1c and will be in effect until these references are revised and incorporate this guidance.

[1] This appendix is extracted from the DASA(ESOH) memorandum, 7 Aug 03, Subject: Policies for Staffing and Approving Decision Documents. The words and graphics are from Enclosure 1, which applies to active and excess installations. Staffing Procedures 5.b. and 7. were updated October 2004, with a correct mailing and Federal Express address.

Staffing and Approving Decision Documents (cont)



Staffing and Approving Decision Documents (cont)

STAFFING MATRIX FOR DECISION DOCUMENTS

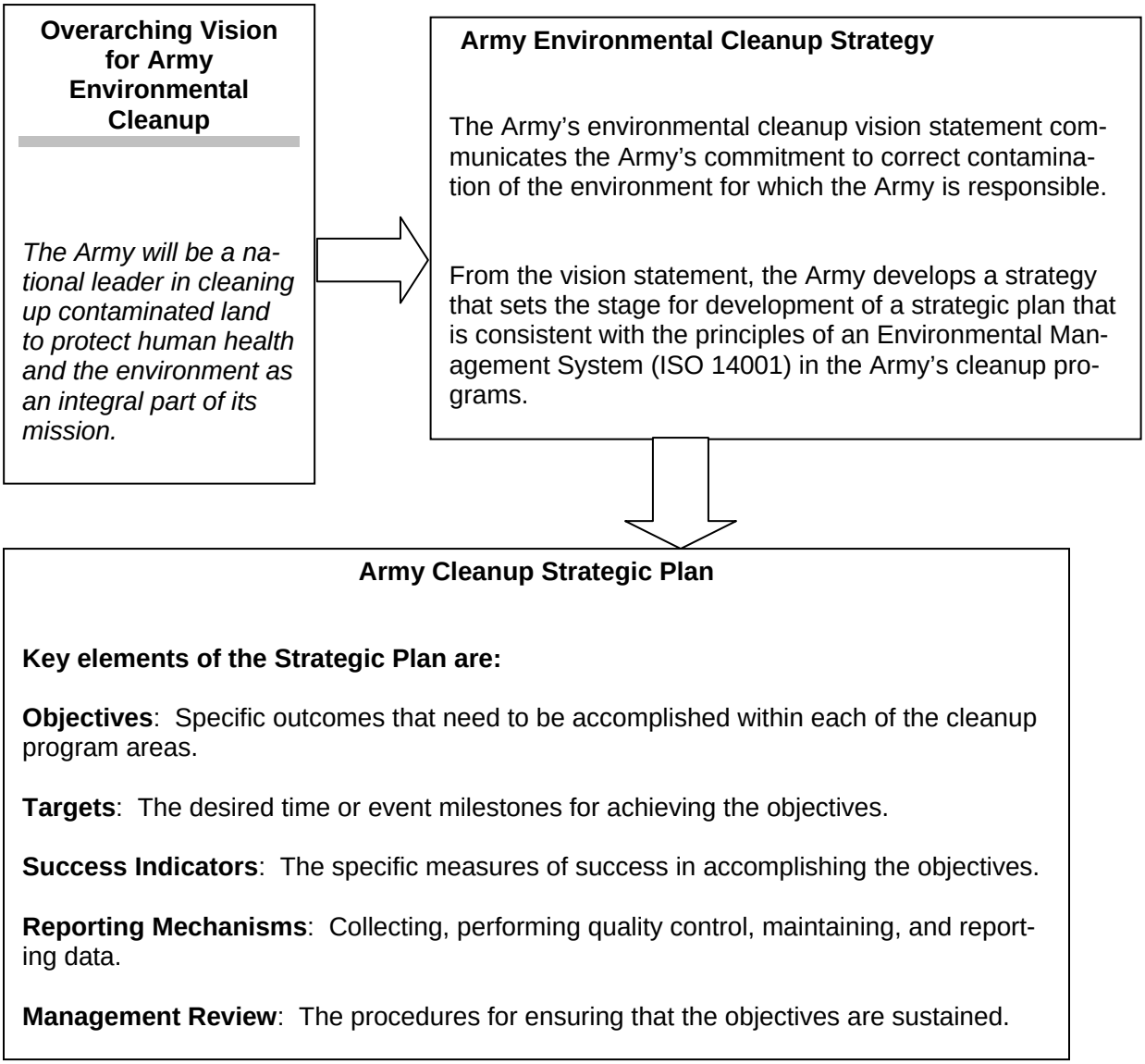
DECISION DOCUMENT TITLE:

ORGANIZATION	STAFF ACTIVITY	POC NAME	OFFICE SYMBOL	PHONE NUMBER	FAX NUMBER	E-MAIL
INSTALLATION	ENVIRONMENT					
	LEGAL					
	PUBLIC AFFAIRS					
	CHPPM					
[1]For MMRP w/explosives risk	USAEC					
	USATCES[1]					
BRAC FO[2]	ENVIRONMENT					
[2] For BRAC & excess installations	LEGAL					
	PUBLIC AFFAIRS					
USAEC[3]	ENVIRONMENT					
[3] For Active (operational)	LEGAL					
installations	PUBLIC AFFAIRS					
HQDA	ODEP		DAIM-EDC	703-601-0599	703-602-0857	firstname.lastname@hqda.army.mil
	TJAG		DAJA-EL	703-696-1230	703-696-2940	firstname.lastname@hqda.army.mil
	ARMY PUBLIC AFFAIRS		SAPA-PD	703-693-5591	703-693-	firstname.lastname@hqda.army.mil
	OTSG		DASG-HS	703-681-3130	703-681-3163	firstname.lastname@otsg.amedd.army.mil
	ODASA(ESOH)		SAIE-ESOH	703-697-1987	703-604-2344	firstname.lastname@hqda.army.mil
	BRACD[2]		DAIM-BD	703-601-1911	703-614-1568	firstname.lastname@hqda.army.mil
	ARMY SAFETY OFF[1]		SAIE-ESOH	703-697-3123	703-614-5822	firstname.lastname@hqda.army.mil

TAB B to Enclosures 1 and 2

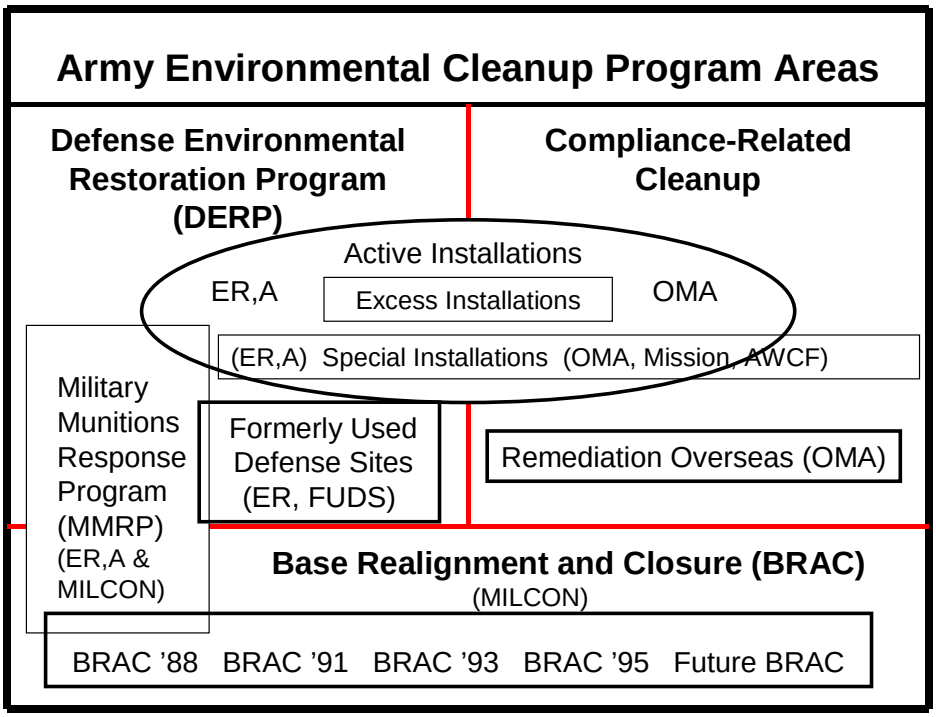
Appendix H
Army BRAC Cleanup Program Goals

Army BRAC Program Goals are ultimately derived from the the Army Environmental Cleanup Strategy (AECS). The AECS identifies overarching objectives to create consistency and accountability across the Army's cleanup programs. A Strategic Plan for each program, in this case for BRAC, identifies specific objectives, targets, success indicators, reporting mechanisms, and management review processes for each program area identified in AECS.



Army BRAC Program Goals (cont)

The cleanup program areas addressed in this strategic plan include cleanup efforts that have been conducted separately under the DERP, BRAC and compliance programs. The figure below depicts the differences and commonalities between the cleanup program areas.



The Army has identified BRAC program goals within the Army Cleanup Strategy and corresponding Strategic Plan. These additional goals and metrics provide direction for implementing a cost efficient program. The Strategic Plan is updated on a bi-annual basis. The current BRAC program goals and objectives within the Army Cleanup Strategic Plan can be found at the USAEC Website at: http://aec.army.mil/usaec/cleanup/index.html

Appendix I
Abbreviations and Acronyms

AECS	Army Environmental Cleanup Strategy
ACSIM	Assistant Chief of Staff for Installation Management
AEDB-R	Army Environmental Database-Restoration
AMS	Army Management Structure
AR	Army Regulation
ARAR	Applicable or Relevant and Appropriate Requirement
ARID	Army Range Inventory Database
ATSDR	Agency for Toxic Substances and Disease Registry
BCP	BRAC Cleanup Plan
BCT	Base Realignment and Closure Cleanup Team
BD/DR	Building Demolition and Debris Removal
BEC	BRAC Environmental Coordinator
BES	Budget Estimate Submission
BRAC	Base Realignment and Closure
BTC	Base Realignment and Closure Transition Coordinator
CA	Cooperative Agreement
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CERFA	Community Environmental Response Facilitation Act
CMS	Corrective Measure Study
CRP	Community Relations Plan
CTC	Cost-to-Complete
DA	Department of the Army
DASA (ESOH)	Deputy Assistant Secretary of the Army for Environment,

	Safety and Occupational Health
DASA(I&H)	Deputy Assistant Secretary of the Army for Installation and Housing
DD	Decision Document
DDESB	DoD Explosives Safety Board
DERP	Defense Environmental Restoration Program
DFAS	Defense Financial Accounting System
DoD	Department of Defense
DODD	Department of Defense Directive
DODI	DoD Instruction
DOE	Department of Energy
DOJ	Department of Justice
DPG	Defense Planning Guidance
DSERTS	Defense Site Environmental Restoration Tracking System
DSMOA	Defense and State Memorandum of Agreement
DUSD (IA&I)	Deputy Under Secretary of Defense, Industrial Affairs and Installations
EBS	Environmental Baseline Survey
EC	Engineering Controls
ECOP	Environmental Condition of Property
EE/CA	Engineering Evaluation/Cost Analysis
ELD	Environmental Law Division
EOD	Explosives Ordnance Disposal
EPR	Environmental Program Requirement
ER,A	Environmental Restoration, Army
ERIS	Environmental Restoration Information System
ERM	Environmental Restoration Manager
ERP	Environmental Restoration Program

ESA	Environmental Site Assessment
ESD	Explanation of Significant Differences
ESS	Explosive Safety Submissions
ETA	Early Transfer Authority
FFA	Federal Facility Agreement
FMR	Financial Management Regulation
FO	Field Office
FOA	Field Operating Agency
FOSET	Finding of Suitability for Early Transfer
FOSL	Finding of Suitability to Lease
FOST	Finding of Suitability to Transfer
FTC	Fast Track Cleanup
FUDS	Formerly Used Defense Sites
FS	Feasibility Study
GSA	General Services Administration
GWETER	Groundwater Extraction and Treatment Effectiveness Review
HQ	Headquarters
HTRW	Hazardous, Toxic and Radiological Waste
IAG	Interagency Agreement
IAP	Installation Action Plan
IC	Institutional Controls
IGCE	Independent Government Cost Estimate
IPR	In Progress Review
IRA	Interim Remedial Action
IRP	Installation Restoration Program
ITR	Independent Technical Reviews
LUC	Land Use Control

LRA	Local Redevelopment Authority
LTM	Long Term Management
MACOM	Major Army Command
MC	Munitions Constituents
MEC	Munitions and Explosives of Concern
MILCON	Military Construction
MMRP	Military Munitions Response Program
MOM	Measure of Merit
MOU	Memorandum of Understanding
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NDAI	No DoD Action Indicated
NEPA	National Environmental Policy Act
NGB	National Guard Bureau
NPL	National Priorities List
NRI	Natural Resource Injuries
NST	NEPA Support team
OE	Ordnance and Explosives
ODEP	Office of the Director of Environmental Programs
ODUSD (I&E)	Office of the Deputy Under Secretary of Defense, Installations and Environment
O&M	Operations and Maintenance
OMA	Operation and Maintenance Account
OTJAG	Office of The Judge Advocate General
PA/SI	Preliminary Assessment/Site Inspection
PAM	Pamphlet
PBC	Performance-Based Contracting
PCB	Polychlorinated Biphenyl

PER	Principles of Environmental Restoration
POC	Point of Contact
POM	Program Objective Memorandum
PRP	Potentially Responsible Party
RA	Remedial Action
RAB	Restoration Advisory Board
RAC	Risk Assessment Code
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
RFI/CMS	RCRA Facility Investigations/Corrective Measures Studies
RI/FS	Remedial Investigation/Feasibility Study
RIP	Remedy-In-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SARA	Superfund Amendments and Reauthorization Act of 1986
SB	Statement of Basis
SWMU	Solid Waste Management Unit
TAPP	Technical Assistance for Public Participants
TRC	Technical Review Committee
USACE	US Army Corps of Engineers
USATCES	US Army Technical Center for Explosives Safety
USACHPPM	US Army Center for Health Promotion and Preventive Medicine
USAEC	US Army Environmental Center

USEPA	US Environmental Protection Agency
UXO	Unexploded Ordnance
WMM	Waste Military Munitions

Appendix J
Available BRAC Environmental Guidance

AVAILABLE BRAC ENVIRONMENTAL GUIDANCE

1. DoD. *Management Guidance for the Defense Environmental Restoration Program*, Office of the Deputy Under Secretary of Defense (Environmental Security), Washington, DC, September, 2001. ***Internet http://www.dtic.mil/envirodod/envdocs.html***

2. DoD. *Base Reuse Implementation Manual*, Office of the Deputy Under Secretary of Defense (Industrial Affairs and Installations), Washington, DC, December, 1997. ***Internet http://emissary.acq.osd.mil/bccr/brim.nsf***

3. HQDA. *Environmental Quality: Environmental Protection and Enhancement. Army Regulation No. 200-1*, Headquarters, Department of the Army, Washington, DC, 21 Feb 97. ***Internet http://www.army.mil/usapa/epubs/index.html***

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5. HQDA, 1995. *Environmental Quality: Natural Resources – Land, Forest and Wildlife Management*, Army Regulation No. 200-3, Headquarters, Department of the Army, Washington, DC. ***Internet http://www.denix.osd.mil/denix/Public/Policy/Army/ar200-3.html***

6. HQDA, 1998. *Environmental Quality: Cultural Resources Management,* Army Regulation No. 200-4, Headquarters, Department of the Army, Washington, DC.

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9. USEPA. *The Final Report of the Federal Facilities Environmental Restoration Dialogue Committee (FFERDC),* US Environmental Protection

Agency, Washington D.C., April 1996. ***Internet http:// www.epa.gov/ swerffrr/ferdcrpt /toc.htm***

10. Websites:

Defense Environmental Restoration Program (DERP) Report to Congress. Online copy of the 1994 through 2000 DERP Reports to Congress. http://www.dtic.mil/envirodod/envdocs.html

DoD Environmental Cleanup Home Page. Up-to-date information on the DoD cleanup program.
http://www.dtic.mil/envirodod/index.html

US Army Corps of Engineers (USACE) Environmental Division. General information on USACE.
htpp://hq.environmental.usace.army.mil/

Office of the Director of Environmental Programs – Army. General information on ODEP. http://www.hqda.army.mil/acsimweb/env/

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1. DASA(ESOH). Memorandum on Agency for Toxic Substances and Disease Registry (ATSDR) Program Management Plan, Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health), Washington DC, 20 Mar 98.

2. DoD. *Guidelines for the Coordination of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Activities between the Agency for Toxic Substances and Disease Registry and the Department of Defense*, Office of the Deputy Under Secretary of Defense (Environmental Security), Washington, DC, Feb 1995.

3. USEPA. *Guidance for Coordinating ATSDR Health Assessment Activities with the Superfund Remedial Process*, OSWER Directive 9285.4-02, US Environmental Protection Agency, Washington DC, March 1987.

COMMUNITY INVOLVEMENT

1. ACSIM. *US Army Restoration Advisory Board and Technical Assistance for Public Participation*, Assistant Chief of Staff for Installation Management, US Army Environmental Center, Aberdeen Proving Ground, MD, April 1998. ***Internet http://www.denix.osd.mil/denix/Public/Policy/Army/IRP/rabapr98.html***

2. DoD. *Restoration Advisory Board (RAB) Resource Book*, Office of the Deputy Under Secretary of Defense (Environmental Security), Washington, DC, Sep 96. ***Internet http:// www.dtic.mil/envirodod/rab/rabresource***

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1. ACSIM. Memorandum on *Environmental Restoration Cost-to-Complete (CTC) Update*, Assistant Chief of Staff for Installation Management, US Army Environmental Center, Aberdeen Proving Ground, MD, 28 Mar 98.

2. ACSIM. Memorandum on *Restoration Program Reporting*, Office of the Assistant Chief of Staff for Installation Management (Office of the Director of Environmental Programs), Washington DC, 19 Mar 97.

3. ACSIM. Memorandum on *Managing the BRAC Environmental Program on a Site Level Basis*, Office of the Assistant Chief of Staff for Installation Management (BRAC Office), Washington DC, 8 Aug 96.

4. USEPA. *Guide to Documenting Cost and Performance for Remediation Projects, Federal Remediation Technologies' Roundtable*, EPA/542/B-95/002, US Environmental Protection Agency, Washington DC, March 1995.

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1. DAIM-BO, Memorandum on *Interim Guidance - Proposed Resolutions to ACHP Issues*, Office of the Assistant Chief of Staff for Installation Management (BRAC Office), Washington DC, 1 Sep 94.

2. DAIM-ED-N. Memorandum on *Endangered/Threatened Species Guidance*, Office of the Assistant Chief of Staff for Installation Management (Environmental Division), Washington DC, 15 Feb 94.

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1. DoD. *Interim Guidance on Environmental Restoration Records of Decision*, Office of the Under Secretary of Defense, Washington DC, 4 Jun 2002.

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4. USEPA. *Guidance for Preparing Superfund Decision Documents; The Proposed Plan, The Record of Decision, Explanation of Significant Differences, and The Record of Decision Amendment (Interim Final)*, EPA/540/G-89/007, OSWER Directive 9355.3-02, US Environmental Protection Agency, Washington DC, July 1989.

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USACE. *Working Together to Achieve Cleanup: A Guide to the Cooperative Agreement Process*, Headquarters, US Army Corps of Engineers, Washington, DC, 22 Aug 97. ***Internet http://www.mrd.usace.army.mil/mrded-h/access/DSMOA/dsmoa.html***

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DoD. *Strategy on Environmental Justice*, Office of the Under Secretary of Defense, Washington DC, 24 Mar 95. ***Internet http://www.denix.osd.mil/denix/Public/Library/Planning/Justice/note7.html***

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1. DoD. Memorandum on *Submission of Fiscal Year 1997 BRAC Cleanup Plan (BCP) Abstracts*, Office of the Deputy Under Secretary of Defense

(Environmental Security), Washington, DC, Aug 1997. ***Internet http://www.dtic.mil/envirodod/brac/bcp_abs/index.html***

2. DoD. Memorandum on *Modifications to the Fast Track Cleanup at Closing Installations,* Office of the Deputy Under Secretary of Defense, Washington, DC, 18 May 1996. ***Internet http://www.dtic.mil/envirodod/brac/reissued.html***

3. DoD. *BRAC Cleanup Plan (BCP) Guidebook*, Department of Defense, Washington DC, Fall, 1996. ***Internet http://www.dtic.mil/envirodod/brac/toc.html***

4. USEPA. *Guidance for Implementing the Fast Track Cleanup Program at Closing or Realigning Military Bases*, US Environmental Protection Agency (Office of Solid Waste and Emergency Response), Washington DC, Feb 1996.

5. ACSIM. Memorandum on *BRAC 95 Environmental Baseline Surveys (EBSs) and BRAC Cleanup Plans (BCPs),* Assistant Chief of Staff for Installation Management, US Army Environmental Center, Aberdeen Proving Ground, MD, 3 May 95.

6. DAIM-BO. Memorandum on *BRAC Implementation Guidance – BRAC 95*, Office of the Assistant Chief of Staff for Installation Management (BRAC Office), Washington DC, 28 Feb 95.

7. DAIM-BO. Memorandum on *BRAC 95 BTC/BEC Guidance*, Office of the Assistant Chief of Staff for Installation Management (BRAC Office), Washington DC, 24 Feb 95.

8. DAIM-ED-R. Memorandum on *Policy Guidance – Version 2 BCPs*, Office of the Assistant Chief of Staff for Installation Management (Office of the Director of Environmental Programs), Washington DC, 8 Dec 94.

9. DAIM-BO. Memorandum on *BRAC Environmental Restoration Policy Changes,* Office of the Assistant Chief of Staff for Installation Management (BRAC Office), Washington DC, 22 Jul 94.

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11. DAIM-BO. Memorandum on *Additional Information on BRAC Cleanup Team Program Execution*, Office of the Assistant Chief of Staff for Installation Management (BRAC Office), Washington DC, 4 Feb 94.

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13. DAIM-BO. Memorandum on *Implementing Guidance for Fast Track Cleanup at Closing Bases*, Office of the Assistant Chief of Staff for Installation Management (BRAC Office), Washington DC, 8 Oct 93.

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ACSIM. Memorandum on *Implementation of Technical Peer Review for Environmental Restoration Projects for Fiscal Year 1998, Interim Final*, Assistant Chief of Staff for Installation Management, US Army Environmental Center, Aberdeen Proving Ground, MD, 2 Sep 97.

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1. USAEC. *Interim Army Land Use Controls (LUC) Management Plan*, US Army Environmental Center, Aberdeen Proving Ground, MD, August 2001.

2. DoD. *Interim Guidance on Environmental Restoration Records of Decisio*n, Office of the Assistant Secretary of Defense, Washington DC, 4 Jun 2002.

3. ACSIM, *Interim Guidance on Environmental Restoration Records of Decision*, Assistant Chief of Staff for Installation Management, DAIM-BO, Washington DC, 6 Aug 2002.

4. ACSIM. *Interim Notification Guidance on Documenting and Reviewing Land Use Controls (LUCs) developed under the Army Environmental Restoration Program*, Assistant Chief of Staff for Installation Management, DAIM-BO, Washington DC, 25 Apr 2002.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

1. DAIM-BO. Memorandum on *General Information Concerning BRAC NEPA Documentation – BRAC 95*, Office of the Assistant Chief of Staff for Installation Management (BRAC Office), Washington DC, 3 Apr 96.

2. DAIM-BO. Memorandum on *Delegation of Authority for BRAC NEPA Documentation*, Office of the Assistant Chief of Staff for Installation Management (BRAC Office), Washington DC, 1 Apr 96.

3. DAIM-BO. Memorandum on *Checklist and Legal Review Certifications for BRAC NEPA Documentation Staffing at HQDA*, Office of the Assistant Chief of Staff for Installation Management (BRAC Office), Washington DC, 17 Jul 96.

4. USACE. *Base Realignment and Closure Manual for Compliance with the National Environmental Policy Act*, US Army Corps of Engineers, Mobile District, Mobile, AL, Sep 1995.

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1. USAMC. Memorandum on *Radiological Survey Policy for US Army Materiel Command (AMC) Radioactive Commodity Base Realignment and Closure (BRAC) Sites*, US Army Materiel Command, Alexandria 17 Apr 98.

2. USEPA. *Multi-Agency Radiation Survey and Site Investigation Manual*, NUREG-1575/EPA 402-R-97-016, US Environmental Protection Agency, Washington DC, Dec 97. ***Internet http://www.epa.gov/radiation/marssim***

3. DAIM-BO. Memorandum on *Radiologic Contamination on Base Realignment and Closure (BRAC) Installations*, Office of the Assistant Chief of Staff for Installation Management (BRAC Office), Washington DC, 25 Mar 94.

4. NRC. *Residual Radioactive Contamination From Decommissioning, Technical Basis for Translating Contamination Levels to Annual Effective Dose Equivalent*, NUREG/CR-5512, US Nuclear Regulatory Commission, Washington DC, Oct 1992.

5. NCR. *Manual for Conducting Radiological Surveys in Support of License Termination*, NUREG/CR-5849, US Nuclear Regulatory Commission, Washington DC, Jun 1992.

6. USEPA. *Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual*, Chapter 10, US Environmental Protection Agency, Washington DC, Sep 1989.

7. Department of the Army. *Ionizing Radiation Protection (Licensing, Control, Transport, Disposal, and Radiation Safety)*, Army Regulation No. 385-11, Headquarters, Department of the Army, Washington, DC, 1 May 1980.

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1. USEPA. Memorandum on *EPA Guidance on the Transfer of Federal Property by Deed Before All Necessary Remedial Action Has Been Taken Pursuant to CERCLA Section 120(h)(3)*, U. S. Environmental Protection Agency, Washington DC, 16 Jun 98.

2. DoD. Memorandum on *Environmental Review Process to Obtain the Finding of Suitability Required for Use of Early Transfer Authority for Property Not on the National Priorities List,* Office of the Deputy Under Secretary of Defense (Acquisition and Technology), Washington, DC, 24 Apr 98.

3. DoD. Memorandum on *Responsibility for Additional Environmental Cleanup After Transfer of Real Property,* Office of the Deputy Under Secretary of Defense (Acquisition and Technology), Washington, DC. 25 Jul 97.

4. DAIM-BO. Memorandum on *Clarification of Meaning of Uncontaminated Property for Purposes of Transfer by the United States,* Office of the Assistant Chief of Staff for Installation Management (BRAC Office), Washington DC, 9 Dec 96.

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9. DAIM-ED-R. Memorandum on *Use of Environmental Baseline Surveys (EBSs)- Transfer Policy Memorandum,* Office of the Assistant Chief of Staff for Installation Management, Washington DC 11 Apr 94.

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1. DOD 6055.9 STD: *DOD Ammunition and Explosives Safety Standards,* Department of Defense Explosive Safety Board, Washington, DC.

2. AR 385-64. *US Army Explosives Safety Program*, Headquarters, Department of the Army, Washington, DC.

3. DA PAM 385-64. *US Army Explosives Safety Program,* Headquarters, Department of the Army, Washington, DC.

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5. EM 200-1-2. *Technical Project Planning,* US Army Corps of Engineers, Washington, DC.

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