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INSTALLATION RESTORATION PROGRAM MANAGEMENT PLAN

Prepared by the U.S. Army Environmental Center
March 1999

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REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010-5401

SFIM-AEC-ERP (200)

09 MAR 1998

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Installation Restoration Program (IRP) Management Plan

1. References:

- a. Memorandum, USAEC, SFIM-AEC-IRP, 6 Dec 96, subject: Revised Installation Restoration Program (IRP) Management Plan.
- b. Memorandum, OUSD, 17 Mar 98, subject: Management Guidance for the Defense Environmental Restoration Program.

2. The IRP Management Plan outlines the basic principles of the Army IRP, provides information relevant to the management and execution of the program, and outlines roles, responsibilities, and procedures. The Plan is intended for use at all levels of IRP management.

3. The enclosed document updates the December 1996 IRP Management Plan (ref 1a) and incorporates changes to the Army's IRP based on the Department of Defense's "Management Guidance for the Defense Environmental Restoration Program," revised and issued in March 1998 (ref 1b). A timeline of all major IRP milestones for a fiscal year is also provided in the Plan.

4. Request that the enclosed Management Plan receive wide dissemination to those directly involved in the Army's IRP. This guidance will be available on the Defense Environmental Network and Information Exchange (DENIX).

5. Comments regarding the IRP Management Plan can be directed to this Center's point of contact, Ms. Karen Wilson, (410) 436-3240/1525 (DSN 584).

Encl


for

EDWARD W. NEWING
Colonel, CM
Commanding

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INSTALLATION RESTORATION PROGRAM MANAGEMENT PLAN

1.0 PURPOSE

The Installation Restoration Program (IRP) Management Plan provides guidance on the management and execution of the Army IRP and supplements roles, responsibilities, and procedures contained in Army Regulation 200-1 and the accompanying Department of the Army Pamphlet 200-1 (DA PAM 200-1). [Note: The DA PAM 200-1 is being published and currently is only available in draft.] This management plan implements the Army's IRP in accordance with the Department of Defense's Management Guidance for the Defense Environmental Restoration Program (March 1998). It applies to activities that are located in the states of the U.S., territories, and the District of Columbia. This document is not applicable to Army restoration activities overseas, the Base Realignment and Closure (BRAC) Environmental Restoration Program or the Formerly Used Defense Sites (FUDS) Restoration Program.

2.0 BACKGROUND

2.1 Defense Environmental Restoration Program (DERP)

The Defense Environmental Restoration Program (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 Department of Defense (DoD) hazardous waste sites consistent with the provisions of the Comprehensive Environment 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.

Section 211 of SARA, 10 USC 2701, 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 with the Office of the Deputy Under Secretary of Defense for Environmental Security (ODUSD (ES)) establishing program goals and providing program management oversight. The Army transfer account is known as Environmental Restoration, Army (ER,A). ODUSD (ES) establishes DERP goals for the Services' restoration programs in the Defense Planning Guidance and implementation guidance and procedures to achieve those goals are provided in the DERP Management Guidance. The latest guidance from ODUSD (ES) concerning the DERP is dated March, 1998.

2.2 Army Installation Restoration Program (IRP)

The Army's restoration program under the DERP to identify, investigate and clean up contamination at active/operating Army installations is the Installation Restoration Program (IRP). The IRP focuses on cleanup of contamination associated with past Army activities.

See Attachment A for a list of major Army

3.0 ROLES AND RESPONSIBILITIES

3.1 Department of Defense

The *Office of the Deputy Under Secretary of Defense, Environmental Security* (ODUSD (ES)) establishes environmental restoration program policy and provides oversight for implementation by the DoD Components. The Office sets goals and evaluates progress toward those goals. ODUSD(ES) leads initiatives to improve program effectiveness and efficiency.

The *Defense Environmental Security Cleanup Committee* (DESCC) is chaired by the Assistant Deputy Under Secretary of Defense for Environmental Security/Cleanup and is comprised of representatives from the Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health), the Deputy Assistant Secretary of the Navy (Environment and Safety) and Marine Corps, the Deputy Assistant Secretary of the Air Force (Environment, Safety and Occupational Health) and the Defense Special Weapons Agency. This committee is responsible for developing and recommending policy, management guidance, goals and metrics as well as legislation and regulations for the DERP.

3.2 Department of the Army

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 *Assistant Chief of Staff for Installation Management* (ACSIM) has staff responsibility for the Army's environmental programs, including providing resources, guidance and authority to execute those programs. The *Director of Environmental Programs* (DEP) and his/her staff support the ACSIM. The *Office of the Director of Environmental Programs* (ODEP) reviews and provides recommendations on all issues/topics directed to the ACSIM concerning environmental policies, planning, programming, budgeting, and oversight of the Army's environmental programs and related matters.

The *U.S. Army Environmental Center (USAEC)* is a Field Operating Agency of the ACSIM and supports the ODEP concerning the Army's environmental programs. Additionally, the USAEC is the program manager for the IRP. The USAEC develops the IRP budget, compiles obligation plans and tracks obligation of funds, reports on progress to the DASA(ESOH) for ODUSD (ES) In-Progress Reviews, develops Army-wide guidance and coordinates program activities and requirements with major Army commands. The USAEC also oversees the execution of the IRP.

The *major Army commands (MACOMs)* and, if applicable, their *major subordinate commands (MSCs)* are responsible for direction and management of the IRP for installations under their command. The MACOM approves prioritization of IRP requirements, allocates installation budgets, monitors project execution for obligation and reporting, consolidates and reports technical and financial installation data to the USAEC and provides technical and financial guidance to all installations under their command.

The *Installation Commander*, or other designated authority when there is no Installation Commander, is responsible for executing the environmental programs at his/her installation. Installations are responsible for tasking their IRP Executor(s), reporting to their MACOM and coordinating regulatory and community involvement.

The *Remedial Project Manager (RPM)* is the installation coordinator of the numerous restoration activities between the Army, the U.S. Environmental Protection Agency (EPA), the state and the local community. The position is assigned by the Installation Commander and the RPM has overall responsibility for the IRP at the installation.

The *IRP Executor* conducts remedial responses (identification, investigation and cleanup of contamination) at active/operating installations at the direction of the RPM. The *U.S. Army Corps of Engineers (USACE) Districts* execute the majority of Army restoration projects. Installations, MACOMs and the U.S. Army Center for Health Promotion and Preventive Medicine may also execute specific projects for the IRP.

The *U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM)* provides oversight of the *Agency for Toxic Substances and Disease Registry (ATSDR)* activities. These activities include the preparation of Public Health Assessments, health consultations, health studies, responses to citizens' petitions and health education activities. USACHPPM reviews and concurs on human health risk assessments and Records of Decision/Decision Documents for the Army Surgeon General and reviews ecological risk assessments. The USACHPPM may also execute specific projects for the IRP.

3.3 Regulatory Agencies

State regulatory agencies are involved in the IRP at installations so that Army restoration goals can be accomplished in accordance with applicable laws and regulations. Points of contact at State regulatory agencies are established for each installation. State regulatory agencies are provided access to program information, including draft data and documents.

The EPA is usually involved in the IRP at installations on the EPA's National Priorities List.

3.4 Local Community

The *Restoration Advisory Board* (RAB) consists of representatives of the local community, DoD, EPA, state and Native American tribes. A RAB should be established where there is sufficient sustained community interest. Members provide individual views to the Installation Commander concerning restoration activities at the installation. An installation representative and a member of the local community jointly chair a RAB.

4.0 INSTALLATION RESTORATION PROGRAM (IRP)

The Army's IRP is a comprehensive program to identify, investigate and clean up contamination at active/operating Army installations. Eligible sites include those contaminated by past defense activities that require response under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA); and certain corrective actions required by the Resource Conservation Recovery Act (RCRA). Eligible cleanup activities at Army IRP installations are the same as those defined in the DERP Management Guidance (March 1998).

The objective of the IRP is to clean up contaminated environment from past Army activities with the following goals; (1) reduce risk to acceptable levels to protect the health and safety of installation personnel and the public, and (2) restore the quality of the environment. Installations perform only essential studies necessary to ascertain the need for remedial action, identify the preferred remedial alternative, and implement the selected remedial action.

The IRP is conducted consistent with the process described in the NCP, 40 CFR Part 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 IRP 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 IRP also complies with state, regional, and local requirements applicable to the cleanup of hazardous materials contamination, as well as related site safety.

Response to unexploded ordnance (UXO) at *active* ranges on operating installations is not an eligible restoration cost and should not be programmed with ER,A resources. *By the end of FY2001, an inventory of closed ranges on operating installations will be completed. Funds for this effort have been programmed in the FY2001-FY2005 Program Objective Memorandum (POM). MACOMs should plan for the inventory through a cooperative effort between environmental staff, range operators, and real property managers.*

Based on the inventory, specific requirements for range response actions and cost to complete shall be programmed in subsequent POM development efforts, and incorporated into DSERTS. The Defense Planning Guidance requires Components to complete identification of UXO response requirements at closed, transferred and transferring ranges within 18 months of promulgation of the final Range Rule.

Building Demolition/Debris Removal (BD/DR) are not eligible restoration activities at active/operating Army installations. Unless approved by the USAEC, BD/DR requirements should not be programmed with ER,A resources.

At each phase of response, appropriate coordination is conducted with federal, state, regional and local regulatory agencies. Consistent with recommendations of the Federal Facilities Environmental Restoration Dialogue Committee (FFERDC), installations should coordinate and consult with federal, state, regional, and local regulatory agencies and Native American tribes on IRP planning and execution. Coordination should begin as early in the restoration process as possible, and should 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 IRP. While fostering open communication between the Army and state regulators, this program assists in expediting environmental restoration at Army installations.

Community involvement activities are an integral part of the Army's IRP. Installation commanders should seek community involvement early and throughout the cleanup process. Unless an emergency situation exists, as defined by the removal action criteria in the NCP, part 300.415(b)(2), the public is afforded an opportunity to review and comment on any proposed remedial action.

The IRP also addresses public health concerns. The Agency for Toxic Substances and Disease Registry (ATSDR) is mandated under CERCLA section 104 (i) to evaluate all federal facilities on or proposed to the EPA's National Priorities List (NPL) for public health concerns. The public health assessment determines whether there is an exposure pathway and if an effect on public health exists from a hazardous waste site.

Attachment B presents specific activities eligible for funds under the Army IRP.

5.0 PROGRAM DEVELOPMENT AND MANAGEMENT

The Army programs to implement remedial response actions at active/operating installations to cleanup contamination in accordance with the goals set forth in the DoD's Defense Planning Guidance, the procedures in the DUSD(ES) DERP Management Guidance and the policies in Army Regulation 200-1.

5.1 Program Objectives

The DoD developed cleanup objectives for active/operating installations and presented the objectives in the Defense Planning Guidance (DPG). The DPG presents the Secretary of Defense's strategic plan for developing and employing future forces and outlines the DoD's commitment to the defense strategy and programmatic objectives identified in the Quadrennial Defense Review. The DoD's environmental programs are developed based on the direction in the DPG and accompanying fiscal guidance. The Army's programs (including environmental) are evaluated based on their compliance and consistency with this guidance at DoD In-Progress Reviews.

The DPG directs that the Army reduce risk to protect human health and the environment as well as comply with legally enforceable agreements, orders and laws. The DPG for FY98 – FY01 includes the following environmental restoration goals for active/operating installations:

By the end of FY2002 and FY2007:

- clean up to a lower relative risk category or have remedial systems in for all currently identified high relative risk sites place (50 and 100 percent, respectively) or within three years for any newly identified high relative risk sites;

By the end of FY2011:

- clean up to a lower relative risk category or have remedial systems in place for 100% of medium relative risk sites; and

By the end of FY2014:

- clean up to a lower relative risk category or have remedial systems in place for 100% of low relative risk sites.

The DPG directs that as installations enter into new (or adjust existing) regulatory agreements, flexible schedules and flexible sequencing of work are included. Sequencing of work should reflect the results of relative risk site evaluations.

The DPG also directs that restoration activities support associated requirements for the Agency for Toxic Substances and Disease Registry (ATSDR) and Defense and State Memorandum of Agreements (DSMOA).

To ensure consistency in the manner that the Army's IRP is implemented to meet these DPG goals, several documents and reports play key roles in the process. The Installation Action Plan (IAP), the Defense Site Environmental Restoration Tracking System (DSERTS), the Cost-to-Complete (CTC), and the Relative Risk Site Evaluation (RRSE) 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 IRP.

5.2 Installation Action Plans (IAPs)

The key document in the management and execution of the IRP is the IAP. The IAP outlines the total multi-year integrated, coordinated approach to achieving an installation's restoration goals. The plan is used by the USAEC, MACOMs, and installations to monitor requirements, schedules and budgets. For each site within the DSERTS, the IAP documents IRP 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 Army's CTC estimating model or an engineered estimate. The IAP contains the IRP history, current DSERTS status, contaminants of concern, response actions taken, and past milestones, as well as any possible future response actions.

Each installation receiving IRP funds is required to prepare an IAP annually. In the case of the National Guard Bureau (NGB), the MACOM acts as the installation and is responsible for preparing the IAP.

IAPs are updated and submitted through the MACOMs to the USAEC on **March 15th**. If the USAEC does not receive plans from the MACOMs on March 15 for each installation with ongoing or future IRP requirements, the amount of the delinquent installation's total IRP requirements for the next fiscal year will not be included in the MACOM's total requirements. The MACOM total requirements are used to determine the allocation of funds for the FY+1.

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. At the direction of the Installation Commander, the IAP should be distributed to regulators/the public to present the planned restoration activities for the installation. Special consideration by the Installation Commander should be made before releasing site-level cost data contained within the IAP to the general public.

Installations should involve federal, state, local regulators, tribal governments and community members of an installation's Restoration Advisory Board when developing and updating the IAP so they may participate in the planning process. Installations are encouraged to include IAPs on their home page on the world-wide-web, if available. Installations should also make the IAP available in information repositories for public review.

The most recent guidance for preparation of IAPs is dated January 1999 and is available on the internet at <http://denix.cecer.army.mil/denix/Public/Policy/Army/IRP/iap.html>.

5.3 Defense Sites Environmental Restoration Tracking System (DSERTS)

The DSERTS is a database of installations and sites that are included in the Army's IRP and BRAC Environmental Restoration Program. Used by installations, MACOMs, and program managers, DSERTS provides an automated WEB-based application to manage, track, and query data on activities conducted under the Army's environmental restoration programs.

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

- DERP Annual Report to Congress
- Program Objective Memorandum
- President's Budget
- Site-level Cost-to-Complete
- Relative Risk Site Evaluations
- IRP Obligation Plans
- DoD In-Progress-Reviews/Measures-of-Merit
- ACSIM IRP Reviews
- Installation Action Plans

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

As part of DSERTS, installations must evaluate all in-progress (not response complete or remedy-in-place) cleanup sites for relative risk. Additionally, installations must report key program status elements in DSERTS, such as information on Records of Decision/Decision Documents, Federal Facilities Agreements, and RABs. In the future, installations will also report on Five-Year Reviews and Land Use Controls through DSERTS. It is the installation's responsibility to ensure data are consistent with the most current *DSERTS Instruction and Guidance*, the Army's CTC database and to correct identified data gaps and inconsistencies.

MACOM Responsibilities. The MACOMs provide quality assurance on the DSERTS data submitted by installations. Data must be updated in accordance with the *DSERTS Instruction and Guidance* and the MACOMs ensure installation data files on the WEB are available to the USAEC in a timely and accurate manner.

USAEC Responsibilities. The USAEC provides DSERTS access, user manuals, Army guidance, and training to installation and MACOM personnel as required by new versions and policy/guidance updates. The USAEC also provides on-site assistance as requested by MACOMs and installations.

The USAEC reviews all MACOM data submissions for completeness and consistency with *DSERTS Instruction and Guidance*. Any necessary revisions are coordinated with the MACOM and installation. The USAEC consolidates data files into an Army file for submittal to ODUSD (ES). The USAEC provides DSERTS input to support the annual Report to Congress, DoD In-Progress Reviews, the Program Objective Memorandum (POM), the Budget Estimate Submission (BES) and the President's Budget.

Definition of a Site. A discrete area where contamination has been verified, requiring further response action and has been or will be entered into the DSERTS database.

New Sites. New sites are added to the DSERTS if the sites are identified in a Preliminary Assessment (PA) conducted for an active/operating installation listed on the Federal Agency Hazardous Waste Compliance Docket. New sites are input to DSERTS when the PA phase is completed and follow-on action is required. New sites with follow-on action can only be added to the DSERTS after the relative risk category has been determined. Sites with a PA phase status of "underway" or "future" cannot be input to DSERTS.

Data Submittals. The DSERTS is updated using WEB Version 4.0 and submitted through the MACOMs to USAEC on **April 15th** and **October 15th** of each FY.

For additional DSERTS information see the DSERTS software on-screen Help, the DSERTS WEB Version User's Manual, and the DSERTS Instruction and Guidance. The most current version can be found at <http://oriris.cso.uiuc.edu/denix/DOD/DESCIM/DSERTS/dserts.html>.

5.4 Relative Risk Site Evaluations (RRSEs)

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.

The RRSE Framework uses common standards and rating definitions for all military Services to ensure uniform categorization DoD-wide. The categorization of DSERTS sites into relative risk groups is based on an evaluation of contaminant concentrations, migration pathways, and human and ecological receptors in ground water, 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:

- (1) select a remedy,
- (2) determine whether or not response actions should be taken,
- (3) substitute for a baseline risk assessment or health assessment that identifies risks associated with the site(s) and potential health effects on the community,
- (4) determine whether a site should be classified as "response complete" or "no further action", or
- (5) avoid meeting legal requirements.

The RRSEs are required for all DSERTS sites with ongoing cleanup activities and should be performed with available site data. Using the RRSE module in DSERTS, active/operating installations evaluate available data for each DSERTS cleanup site. Note that RRSE is not required and should not be performed at the following sites:

- (1) sites classified as having all remedies in place (RIP), even though the sites may be in remedial action operation or long-term monitoring,
- (2) sites classified as "response complete" in DSERTS,
- (3) sites that only have BD/DR requirements, and
- (4) sites where the Army is a potentially responsible party and is providing funding, but is not performing the cleanup action.

Sites without information to conduct a RRSE are not added to the DSERTS database. Sites with chemical agent that cannot be safely sampled can be added to DSERTS as not evaluated. An installation must use either IRP program management funds or Operations and Maintenance (O&M) funds for initial RRSEs. Any installations with sites currently in DSERTS that are not evaluated for relative risk must strongly justify, by site, why the site has not been evaluated and provide a schedule for evaluation.

Per DoD guidance and Army policy, installations are to solicit stakeholder involvement throughout the RRSE process. The IAPs together with the resultant relative risk evaluations can serve as the basis for dialogue with stakeholders (local community, Restoration Advisory Boards, and regulator representatives) on sequencing work at sites.

Installations review and update RRSE data when DSERTS is updated for the April and October data calls. Relative Risk data are provided to DUSD(ES) 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 In-Progress Reviews. The DoD Relative Risk Working Group developed a quality assurance program for RRSE data. After DSERTS data are provided to DUSD(ES), DoD presents the Army with questionable RRSE data for explanation or possible corrective action. It is important to re-evaluate the relative risk of sites for each DSERTS data call, particularly for those sites where new data is available or to validate questionable existing data.

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/relrisk/relrisk.html>, and <http://www.dtic.mil/envirodod/relrisk/qapage.html>

5.5 Cost-To-Complete (CTC)

In FY95, the DoD required that all Services develop a comprehensive estimate, *by site*, of the total cost for completing all environmental restoration activities under both the IRP and the BRAC Environmental Restoration Program. The Army effort, referred to as the *Cost-To-Complete Study and Analysis*, was initially completed in June 1995 for all active and BRAC installations, and limited Army Reserve and Army National Guard installations. The *Cost-To-Complete Study and Analysis* was used to develop a comprehensive database, by DSERTS site, for the IRP, as well as the BRAC Environmental Restoration Program. CTC estimates are used to develop the IRP budget in the POM. The CTC database is maintained and updated as a centralized effort through the USAEC. Installations, through their MACOM, provide information to support the centralized effort.

The DPG requires an annual update of this estimate of cost to complete. Each DSERTS site with any future planned cleanup activity must have an estimate of the cost to complete for those restoration activities. The estimates include:

- (1) the cost of completing all remaining studies, restoration, remedial action operations (including operations and maintenance of remedial systems),
- (2) long-term monitoring, 5-year reviews, maintenance of land use controls, and
- (3) site closeout and deletion from the NPL, where appropriate.

The estimates will, to the extent possible, reflect site-specific considerations and realistic assumptions about cleanup levels and technology applied. Estimates are adjusted to reflect new information.

Updating the CTC database occurs annually in the spring and updates are due to the USAEC in July. This update of the cost-to-complete for all sites is an installation's total cleanup requirements.

In June, the MACOMs are 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 shorter). Installations are notified by their MACOM of their annual environmental allocations in June and must then "*program*" their CTC estimates to meet their allocations. An installation's total *programmed* cleanup requirements, are submitted to the USAEC through DSERTS by October 15th and are used to develop the IRP budget.

For detailed guidance on CTC procedures, see memorandum on "Environmental Restoration Cost-To-Complete (CTC) Update" (28 Mar 98).

5.6 Budgeting

The USAEC develops the IRP budget by consolidating MACOM requirements identified in the CTC database. The budget is built by DSERTS site in accordance with the DPG and is based on the CTC estimates and RRSEs. The DPG requires that each cleanup program address sites in Relative Risk categories within a given timeframe. As IRP activities progress, to meet the goals of the DPG, each year the IRP budget is adjusted based on the updated CTC database.

The Army's IRP requirements are presented in the POM and includes the budget years (FY+1 and FY+2) and future years (FY+3 through completion). In the spring/summer, the MACOMs are advised of their proposed distribution for not only the next fiscal year, but through FY2014 (the DPG goal for all sites to be response complete or have remedial systems in place).

Installations, in turn, are notified by their MACOM of their environmental allocations through FY2014 and must then "*program*" their CTC estimates by site to match their allocation. Each MACOM submits all "*programmed*" requirements through FY2014 for their installations to the USAEC by October 15th.

These programmed requirements submitted to the USAEC in October are then used to develop the POM from February through June. The POM is then used to develop the Budget Estimate Submission (BES) in October/November and the President's Budget in January/February.

5.7 Funding IRP Activities

Environmental restoration responses at active/operating installations are funded through an Army transfer account referred to as Environmental Restoration, Army or ER,A. The ER,A account is fenced to protect current Army activities from bearing the burden of paying for contamination related to past operations and practices. Funds can neither migrate into or out of the ER,A account. The fence on this account prevents funds appropriated by Congress for other purposes from being used to fund environmental restoration activities without Congressional approval. The fence also prevents funds appropriated for environmental restoration activities from migrating to other activities.

5.7.1 Funding Categories

The Environmental Restoration, Army transfer account is apportioned into 5 categories:

- 1) Program Management
- 2) Projects
- 3) HQDA Project Set Asides
- 4) DSMOA
- 5) ATSDR

Program Management. Program management includes salaries, travel, supplies, legal support, public involvement support (RAB administrative costs, Technical Assistance for Public Participation (TAPP) costs), Technical Review Committee (TRC) administrative costs, and costs for Preliminary Assessments (PAs) for installations on the Federal Agency Hazardous Waste Docket. Program management is not to exceed 10% of the total IRP budget.

Community involvement activities related to restoration activities, such as the Community Relations Plans (CRP) and CRP implementation, public meetings, and fact sheets are funded through the ER,A account as **project costs** apportioned over all sites and must be identified in the IRP Obligation Plan. The costs associated with RAB/TRC administrative support are funded from the ER,A account as **program management costs** and are identified separately in the IRP Obligation Plan. The TAPP program provides community members of RABs/TRCs with access to independent technical support through the use of government purchase orders. When RABs/TRCs identify a need for technical assistance, the installation will program funds for TAPP support as **program management costs**. MACOMs submit individual RAB/TAPP Cost Worksheets when identifying program management costs for the upcoming fiscal year.

Projects. Projects include costs, tracked by DSERTS site, to execute remedial responses such as studies, designs, removals, remedial actions, long-term monitoring and operations. Contract administration costs (both prior and current year), in-house support, and any costs associated with execution of IRP activities tracked by site are also project costs. At least 90% of each MACOMs' project funds must be committed to "high" relative risk sites. At the MACOM discretion, 10% of project funds can be used for lower relative risk category sites.

HQDA Project Set Asides. Project set asides are those that have been negotiated by Headquarters, Department of the Army (HQDA).

DSMOA. The U.S. Army Corps of Engineers (USACE) executes the DSMOA program and reports on the status of the program at the DoD In-Progress Reviews. The Army provides IRP funds for State regulatory IRP services at Army installations. The USAEC reviews proposed DSMOA budgets and quarterly reports from the States for consistency with the approved IRP Work Plans and eligibility for reimbursement.

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 In Progress Reviews. The USACHPPM provides the USAEC with the ATSDR draft Annual Plan of Work in June. The USAEC reviews the proposed ATSDR budget for consistency with the approved IRP Obligation Plan and eligibility for reimbursement. The USACHPPM provides MACOMs and installations with a schedule for site visits and documents delivery by quarter. The USACHPPM will contact all installations prior to ATSDR activities at their installation.

Funding for New Sites. IRP funds may be used for sites in DSERTS and for Preliminary Assessments (PA) required by the Federal Agency Hazardous Waste Compliance Docket. MACOMs may fund a PA for installations on the docket with restoration program management funds. IRP funds are not available for a PA at installations not on the docket. New sites can receive funds only after being added to DSERTS after an assessment is finalized and the relative risk category has been determined.

5.7.2 Defense State Memorandum 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 DoD's restoration programs. 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. Each Component Service is responsible for providing funds to USACE for disbursement to the States that have a signed DSMOA/CA.

The DSMOA is the general agreement that the State will provide technical services and the DoD will provide funds for those services. The CA is the agreement on the specific services (considered short-term) 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 4 years, as necessary.

The Army is developing a process within USACE guidance for identifying each State's funding requirements that includes input from Army installations. Guidance on this process will be available in the early Spring of FY99. Currently, implementing instructions, including Army installation and MACOM responsibilities, have six steps.

Step 1: A designated DSMOA/CA representative of the State contacts the appropriate installation representative (for the IRP the representative is the RPM) to indicate that the state is initiating the development of the two-year CA with a narrative summary for an additional 4-years, covering a total of 6 years.

Step 2: The RPM provides the State with a detailed schedule of deliverables and activities for the two-year CA and a narrative summary of activities planned for the four years subsequent to the 2 year CA. The purpose of this is to develop a two-year CA work plan (jointly signed by the state and the installation) and tentatively agree on the anticipated restoration activities for the 4 years beyond the CA.

Step 3: The designated State DSMOA/CA administrator, using the schedule developed by the installation, calculates the costs required to support the installation's restoration program for two years and prepares a draft CA.

Step 4: The installation, MACOM and the USAEC concurrently review the proposed costs and activities included in the draft CA. Once the MACOM and the USAEC agree on the draft CA, the USAEC and the State DSMOA/CA administrator discuss and agree on the reasonableness of the short-term and the long-term activities.

Step 5: The State completes its CA application for all installations and each Component Service, within the State and submits the application to USACE for processing and funding. The CA application includes the summary of costs, by Component Service and by funding source (ER, A or BCA), for each of the two years of the CA and presents an estimate of total costs for the additional 4 years (by service and by fund source). USACE transmits all CA applications to DoD for concurrence.

Step 6: Each Component Service provides its share of the first year's funding to USACE by February 1.

For detailed guidance on the DSMOA/CA Program, see the USACE handbook "Working Together to Achieve Cleanup: A Guide to the Cooperative Agreement Process." 1996. Internet <http://www.mrd.usace.army.mil/mrded-h/access/DSMOA/dsmoa.html>

5.7.3 Priority Setting and Sequencing.

Prioritization and sequencing of IRP activities to meet the DPG goals are accomplished using the RRSE Framework, other risk information and other management factors. Factors other than risk to human health and the environment may influence the sequencing of work at sites. These factors do not influence the "high," "medium," or "low" RRSE rating, or risk assessment results, but may influence the site's priority for funding. To meet the goals of the DPG, at least 90% of each MACOMs' project funds for the fiscal year must be committed to "high" relative risk sites. At the MACOMs' discretion, 10% of project funds can be used for lower relative risk category sites, however, the obligation plans must reflect 100% of the MACOM Annual Funding Plan.

MACOMs must be able to justify funding for sites that are categorized as other than "High" relative risk. Other management factors include:

- program goals and 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 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, Native American tribes, and public stakeholders,
- availability of new and innovative technologies, and
- actual and anticipated funding availability.

5.7.4 Funds Distribution.

After Congressional approval of the DoD appropriation that funds this program, funds are released to the Army Budget Office (ABO). The USAEC directs ABO to distribute the funding for program execution. Funds are generally distributed to the MACOMs, the USACE or the USAEC on a quarterly basis. Funds are provided for both program management and project execution.

5.7.5 Obligation Plan.

MACOMs must distribute their Annual Funding Plan to achieve the DPG goals and the Army's obligation goals. The MACOMs and installations identify their IRP requirements each year in the IRP Obligation Plan. The MACOMs ensure that funds are obligated only against sites and phases identified in IRP Obligation Plan. The obligation plan is a list, by installation, of the Army's total IRP requirements for a particular year. The obligation plan contains several components. The planned and actual obligation by DSERTS site and by quarter, the RRSE ratings, phase, legal driver, and milestone are required in the obligation plan. The plans must reflect 100% of the MACOM Annual Funding Plan.

The IRP Obligation Plans are updated quarterly and are due to USAEC on the first day of the second month after the end of the quarter; Feb 1, May 1, Aug 1 and Nov 1. The updated obligation plans reflect actual obligations by site and any deviations in funding levels.

Additions to the obligation plan. When unforeseen issues arise that take precedence over approved line items on the IRP Obligation Plan, an installation identifies new requirements to be added to the plan. The MACOM must provide to the USAEC an updated plan for obligation of funds and identify a site to decrement in order to pay for the new requirement.

5.7.6 Tracking and Reporting.

Obligation. Quarterly, the MACOMs submit updated obligation plans to the USAEC. The USAEC uses the obligation plans to track execution of the IRP. Obligation plan updates are reconciled with the Defense Financial Accounting System (DFAS) and the USACE PEAR reports quarterly.

When ER,A funds are obligated, installation or executor resource managers input installation and phase-level obligation information to the DFAS using AMS codes identified in the DFAS-IN manual 37-100-XX. On a monthly basis, DFAS generates and distributes a report of obligation and disbursement called a "218 Report" to the installation and MACOM. The installation resource manager investigates and corrects any discrepancies in the report so that subsequent 218 Reports portray an accurate execution status. It is imperative that installation project management and resource management staff in cooperation review the "218 Reports" to identify any discrepancies.

Quarterly, the USAEC compares actual DFAS obligation and disbursement data with reported data on the updated IRP Obligation Plans. The USAEC reports discrepancies between the DFAS data and the IRP Obligation Plan to the MACOMs for reconciliation.

Annual Funding Plan. MACOMs notify the USAEC of the recipients of their approved funding each fiscal year in their Annual Funding Plan. The USAEC coordinates with the Army Budget Office (ABO) to issue Funding Authorization Documents (FADs) and advise MACOM resource management of the planned distribution. The USAEC performs a mid-year review of execution, recommends adjustments as necessary and notifies MACOMs and the ABO of the revised distribution.

Program Execution Report. The MACOMs also submit quarterly to the USAEC a report on progress towards meeting the Army's quarterly obligation goals (goals are listed in Section 5.8), the status of DSERTS, RABs, Records of Decision/Decision Documents (RODs/DDs), successes and issues. These reports are used to inform the ACSIM on the execution and obligation status of the IRP.

Program Execution Review. At a minimum, the USAEC holds meetings semi-annually with the MACOMs to review execution of the IRP and discuss IRP issues. At these reviews, the MACOMs will brief the USAEC and ODEP of its progress towards obligation of their Annual Funding Plan and explain any changes or additions to the IRP Obligation Plan.

5.7.7 Outlays.

Recently, the Army has been focusing on tracking "*outlays*" in addition to "*obligations*" with respect to its environmental restoration accounts. Within the U.S. Government financial system, the term "*outlays*" refers to the actual disbursement of funds or the payment of a bill, where obligations establish the legal reservation of funds.

Funds are "*authorized*" for restoration projects when included in an approved FY IRP Obligation Plan. However, funds are not "*obligated*" until an authorized agent of the government (e.g., Contracting Officer) signs (awards) a contract and commits the U.S. Government to pay a set amount for a prescribed work effort or product over a determined period of time. While "*authorized*" project funds are subject to approved changes in the IRP Obligation Plan, "*obligated*" funds must be reserved in their entirety to pay a bill that is owed by the U.S. Government.

In the case of the payment of government employee salaries or the purchase of materials or equipment, funds must be "*authorized*" to pay the salary or purchase the equipment. "*Obligation*" occurs when the work is performed or the contract for the purchase of the equipment is awarded, and the funds are reserved while the government paycheck or contractor payment check is issued and cashed. When the government employee cashes his/her paycheck or the vender cashes the government check, funds are disbursed and the "*outlay*" has occurred (funds are considered disbursed when the U.S. Government issues the check.)

When the U.S. Government awards a large, multi-year contract, the government does not pay the contractor until the work is actually performed. In the case of many environmental contracts the project may extend for two to three years or more. Normally the contract has provisions to reimburse the contractor on a monthly basis for work performed within the given month. The contractor submits a monthly Cost and Performance Report on the work effort and the amount of funds (labor costs, overhead, and material costs) that the contractor has expended during the month. When the Contracting Officer and the Contracting Officer's Representative verify that the work effort and costs are valid, the appropriate Disbursement Office "pays the bill" and the applicable portion of the "*obligated*" funds are reported as "*outlays*."

Operations and Maintenance, Army (OMA) funds traditionally have been used to pay Army employees or contractors for on-going work. The one-year OMA funds are normally "*obligated*" and disbursed or "*outlayed*" in the year that the funds are appropriated. Any OMA funds not "*outlayed*" in the initial year warrant close inspection, audits, and procedural reviews.

Environmental accounts in an OMA carrier challenge the traditional financial accounting process because funds often are not disbursed for two to three years following "*obligation*." This delayed disbursement has resulted in an apparent credibility problem. Congress is told that it is imperative to provide funds in a given fiscal year to fund high priority, critical projects and therefore appropriates and "*authorizes*" ER,A funds. The contracts are awarded and the funds are "*obligated*," but there is limited disbursement.

The General Accounting Office (assuming that bona fide needs rule was not being adhered to in the program) questions the rate at which outlays are being processed and reported. Congress sees limited "*outlays*" for a year and incorrectly assumes that no work is being performed or that the Army is forward funding workloads on previously declared "*critical*" projects. This view that the level of funds appropriated for environmental cleanup are not really needed makes the unobligated prior year funds of environmental accounts susceptible to "raids" when other high priority requirements (such as troop deployments) require immediate, but unbudgeted funding.

5.7.8 Reimbursement for Non-Army Activities

While highly discouraged, an Interagency Agreement/Federal Facilities Agreement may include language that the Army will reimburse other Federal agencies (outside of the Army) 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 to be reimbursed, submits 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 only reimburses 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 USC 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 Congressional funded mission. Installations and MACOMs 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.

5.8 Execution Strategy

DoD and the Army establish various goals for the IRP that must be met during program execution.

Obligation Goal. The DoD goal for obligation of funds is 28% by first quarter, 55% by second quarter, 80% by third quarter and 100% by fourth quarter.

DPG Goal. The Army must meet the goals of the DPG. The DPG requires that restoration activities clean up to a lower relative risk category, or have remedial systems in place for (1) 50% of the identified high relative risk sites by the end of FY2002, (2) 100% of the identified high relative risk sites by the end of FY2007 (or within three years for any newly identified high relative risk sites), (3) 100% of the identified medium relative risk sites by the end of FY2011, and (4) 100% of the identified low relative risk sites by the end of FY2014.

Disbursement Goal. 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:

	ANNUAL		CUMULATIVE
Initial year of Obligation	22%	22%	Disbursement of Funds
Second Year of Obligation	45%	67%	Disbursement of Funds
Third year of Obligation	22%	89%	Disbursement of Funds
Fourth year of Obligation	6%	95%	Disbursement of Funds
Fifth year of Obligation	5%	100%	Disbursement of Funds

Program Management Goal. The Army's execution strategy is to limit total Army program management funds to 10% of the IRP budget.

5.9 Performance Measures

Program Execution Reports. Quarterly, the MACOMs submit to the USAEC a report on obligation, the status of DSERTS, RABs, RODs/DDs, successes and issues. These reports are used to report quarterly to the ACSIM on the execution and obligation of the IRP.

Program Execution Review. The USAEC holds meetings with the MACOMs to review execution of the IRP and discuss IRP issues on a semi-annual basis, at a minimum. At these reviews, the MACOMs brief the USAEC of their progress towards obligation of their Annual Funding Plan and any additions to the IRP Obligation Plan.

ACSIM IRP Review. The ACSIM requires quarterly reports on the execution and obligation of the IRP. These reports are presented at the MACOM-level with detailed installation backup, as appropriate. Other reporting requirements include, but are not limited to, DSERTS status, the annual Report to Congress, semi-annual budget execution reporting, annual reporting through the POM process, and the annual CTC update.

DoD In-Progress Review. ODUSD (ES) requires that DoD Component Services monitor program progress and report semi-annually in June and December. The Army uses IAPs, DSERTS data, RRSE data, budget data, and CTC information to report DERP status in support of the Army IRP.

Measures of Merit (MOMs). MOMs are the tools used by ODUSD (ES) to measure the Army's progress toward goals set forth in its planning guidance, the DPG. There are four MOMs for the IRP that the Army reports to OSUSD (ES) semi-annually at the In-Progress Review.

1. Relative Risk Reduction

This MOM tracks both site counts and funding for each relative risk category. Progress of sites in each relative risk category for each fiscal year is used to indicate progress toward the DPG goals of relative risk reduction. The desired trend is toward a lower number of sites in the "High" relative risk category.

2. Phase Progress

This MOM tracks the number of sites and funds in study, cleanup, and response complete/no further action required categories. Progress is indicated as sites go from the investigation phase and cleanup phase to the response complete or no further action required categories. The desired trend is toward an increasing number of sites going from investigation to cleanup to closeout.

3. Milestones Accomplished

This MOM tracks the number of sites where the milestones “Actions Taken”, “Work Initiated”, “Remedy in Place”, and “Response Complete” have been achieved. The desired trend is toward an increasing number of sites in the “Remedy in Place” and “Response Complete” categories.

4. Installations Achieving Final Remedy in Place/Response Complete

This MOM tracks the number of installations that have all sites in the “Remedy in Place” or “Response Complete” categories. The desired trend is toward an increasing number of sites in the “Remedy in Place” and “Response Complete” categories.

The Defense Environmental Restoration Program Annual Report to Congress. The DoD is required to submit an annual Report to Congress that describes the DERP accomplishments during the previous FY. The report is required by section 120(e)(5) of CERCLA that applies to all Federal facilities and section 211 of SARA, as amended on 10 Nov. 93, that pertains to the DERP. The report outlines progress made in carrying out environmental restoration activities at military installations. The report includes success stories highlighting significant DERP activities and initiatives, narrative summaries for NPL, proposed NPL installations and major BRAC installations, and the status of the cleanup at installations with sites in the DERP.

At the end of each FY, the USAEC requests that MACOMs and installations submit success story candidates and to provide information for, and review narrative summaries.

The DSERTS Fall Data submission is a critical source of information for the report to Congress. Therefore, installations and MACOMs should ensure that the DSERTS data is updated and submitted as required. Preparation of the report begins in September of each year with a requirement to submit the report to Congress by 31 Mar. Copies of the report are eventually distributed to MACOMs, Installation Commanders, and program executors.

The Annual Report to Congress is available on DoD's home page at <http://www.dtic.mil/envirodod/envdocs.html>

5.10 Program Timelines

- Oct. Report to Congress Draft Narratives
- Oct. 15 DSERTS Fall Data Submission including programmed CTC requirements
Current FY Obligation Plan Due

- Nov. Program Execution Review Meeting
Fall DSERTS forwarded to DoD
Closeout Obligation Plan for Prior FY Due

- Dec. DoD Semi-annual In-Progress Review

- Jan. President's Budget Developed

- Feb. DSERTS Spring Data Call Begins
Begin POM process
- Feb. 1 Updated Obligation Plan Submission

- Mar. 15 Annual IAP Submission
- Mar. 31 Annual DERP Report to Congress is Complete

- Apr. 15 DSERTS Spring Data Submission

- May Program Execution Review Meeting
- May 1 Updated Obligation Plan Submission

- June Begin update of CTC requirements
DoD Semi-annual In-Progress Review
Spring DSERTS forwarded to DoD

- July CTC requirements due to USAEC

- Aug. DSERTS Fall Data Call Begins
- Aug. 1 Updated Obligation Plan Submission

- Sept. Installations program CTC requirements
Report to Congress Success Stories Narratives
Input for the Budget Estimate Submission

6.0 PROGRAM EXECUTION

The Army IRP is executed at the installation level, and the Installation Commander, or other designated authority where there is no Installation Commander, is accountable for the IRP at his/her installation. The Remedial Program Manager (RPM), the designated executor of Army restoration projects, the MACOMs, and USAEC all play a role in the execution of the Army's IRP.

6.1 Installation

The Installation Commander is responsible for execution of the restoration program. Where there is no Installation Commander, the MACOM designates an alternative authority.

- The Installation Commander or other designated authority through the MACOM assigns a RPM, to ensure all work is accomplished in accordance with regulatory, DoD and Army policy. The RPM is the primary point of contact between the installation, MACOM, ATSDR, USACHPPM, USAEC, IRP Executor, regulators, and the public.
- The RPM communicates and negotiates with regulators and is the sole point of interface with all regulators.
- The RPM executes the IRP 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.
- The RPM prepares and submits IAPs, DSERTS and CTC updates, IRP Obligation Plan input, and related changes to the MACOM.
- As appropriate, the RPM is responsible for including ATSDR recommendations from the Public Health Assessment into the IAP. A Public Health Assessment, (conducted by ATSDR) is required when an installation is proposed to the NPL. Upon proposal to the NPL, the installation is contacted by USACHPPM. USACHPPM instructs the installation on the requirements for a Public Health Assessment, the role of ATSDR, and negotiates a schedule for an initial ATSDR site visit within 18 months of proposal to the NPL.
- The RPM implements projects, including identification of funding and reporting requirements and programs necessary ER,A funds through their obligation plans, CTC and DSERTS with estimates of cost and time requirements for performance of specific tasks.
- The RPM assigns tasks to their IRP Executor describing the general scope of activities and provides project criteria, goals and general milestones for restoration work. Installations should obtain maximum competition when selecting project management services.

- The RPM will provide appropriate funds, in coordination with their MACOM, to their IRP Executor for all work required. The RPM ensures that funds are allocated to eligible projects only. The last resource management office (installation or IRP Executor) to receive restoration funds follows standard resource management practices to input obligation information by installation and phase to the DFAS. The installation or IRP Executor ensures that the resource management office accounts for restoration funds in accordance with DFAS-IN Manual 37-100-XX.
- The RPM approves proposed schedules and deadlines for all tasks and deliverables and provides comments and approvals to the IRP Executor on items such as scopes of work and project documents in accordance with approved schedules.
- The RPM provides guidance to the IRP 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 RPM is responsible for obtaining concurrence from their MACOM of any deviations from policy and guidance.
- The RPM coordinates with the IRP 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 IRP Executor fails to meet a deadline resulting in a penalty to the Army, the installation RPM is responsible for notifying the MACOM and the USAEC of the penalty and any associated costs.
- The RPM provides copies of project documents for review and comment to appropriate Army proponents of the IRP such as their MACOM, the USAEC, USACHPPM, and ATSDR (when appropriate).
- The RPM provides copies of all RODs/DDs for review and concurrence to their MACOM/MSO, USAEC and USACHPPM prior to release of funds for removal/interim/remedial action contracts.
- If the RPM believes the executor's performance is unsatisfactory, the Installation Commander or other designated authority contacts the commander of the executing agency and attempts to resolve the issues. Performance should be judged on the executor's ability to meet schedules, communicate with the installation staff, provide quality reports, effectively use available funding resources, etc. If the quality of performance by the executor continues to be unsatisfactory, the Installation Commander or other designated authority, in concurrence with the MACOM, may transfer execution to another performer. Appropriate notifications shall be made to the executor and the MACOM so that funds can be recovered and redirected to the new performer.

6.2 Executor

The USACE executes the majority of Army restoration projects. The USACE established Hazardous, Toxic and Radiological Waste (HTRW) Design Districts for executing environmental cleanup activities. Each HTRW Design District works within specific geographic boundaries. Approval is obtained from the Director of Military Programs at headquarters USACE if the installation prefers using a USACE District outside of the geographic area.

Installations and MACOMs also execute IRP projects. USACHPPM is available to execute specific projects under the IRP such as specialized risk assessment and initial site assessment projects, particularly preliminary assessments, site inspections, and relative risk site evaluations.

Use of government agencies outside of the Army to execute the IRP is discouraged except under unusual circumstances. As appropriate, Economy Act procedures are followed. Installations should contact their resource management and legal offices concerning Economy Act procedures. ATSDR (not an Army agency) through a Memorandum of Understanding (MOU) with the DoD 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.

- The IRP Executor assigns a Project Manager to be the primary point of contact for the installation RPM. The Project Manager serves under the authority and direction of the installation RPM in accordance with specific tasks.
- The Project Manager provides estimates of costs and time requirements for performance of specific tasks forwarded by the RPM. The estimates include in-house costs, specific contract and pricing data, and costs charged for contract 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. The Project Manager also plans laboratory analyses to minimize higher cost growth turnaround time requirements.
- The IRP Executor proposes 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.
- The IRP Executor recognizes the installation RPM as the sole point of interface with all environmental regulators, reports any contacts by regulators immediately and attends all meetings as requested by the installation RPM.
- The IRP Executor will request specific approval from the installation RPM before release for publication of any information gathered. The IRP Executor will not release any information concerning the installation's restoration program without approval from the installation RPM.

- The IRP Executor must use existing contracts before initiating new contracts for environmental work.

6.3 MACOM

The MACOMs are responsible for direction and management of the IRP for installations under their command. The MACOMs 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 relative risk site evaluations completed in accordance with current Army guidance.

- MACOMs maintain a plan for obligation of the funds currently identified in the MACOM program.
- MACOMs insure funds are obligated only against sites identified on the approved IRP Obligation Plan and are in accordance with Army quarterly goals (28%, 55%, 80% and 100%).
- MACOMs report on current obligation by installation, site, phase and quarter to the USAEC for consolidation and reporting.
- Using the goals of the DPG, the MACOMs distribute funds to support identified IRP sites.
- The MACOMs submit IAPs, DSERTS updates, IRP Obligation Plan input, and related changes to the USAEC.
- MACOMs review and staff DDs/RODs for approval signature.
- MACOMs distribute restoration guidance received from USAEC to their installations.

6.4 USAEC

The USAEC is a Field Operating Agency under the direction of the ACSIM. The USAEC is the program manager for the IRP and provides a broad range of program management and oversight services in support of ODEP, MACOMs, and installations.

The USAEC conducts the HQDA initiated Independent Technical Review Program. 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.

The USAEC also has an oversight function for all IRP Army installations. In addition to overseeing execution of the IRP, USAEC provides technical assistance with DSERTS updates, revisions to the IAPs, CTC updates and guidance in the overall IRP process. The IAPs, in conjunction with the installation IRP Obligation Plan, are used by USAEC to oversee and track the progress of the IRP at each installation.

USAEC oversight personnel coordinate with MACOMs prior to any site visits and also notify the MACOM of any issues that arise from the site visit. As necessary, IRP project documents should be provided to the USAEC Restoration Oversight Manager. The USAEC will submit copies of completed documents to the Army's Technical Information Center (TIC), a library of all Army environmental documents. The TIC is located at the USAEC at Aberdeen Proving Ground, MD.

If an installation or MACOM/MSA is not aware of their USAEC Restoration Oversight Manager, contact the Restoration Program Oversight Branch of USAEC, Environmental Restoration Division DSN 584-3261 or commercial (410) 436-3261.

7.0 PROGRAM PROCEDURES

The IRP was implemented to address the Army's cleanup responsibilities under CERCLA. There are several program procedures required under the IRP.

7.1 Record of Decision (ROD)/Decision Document (DD)

ROD. Under CERCLA, a remedy is selected and documented in a ROD following receipt of Proposed Plan public comments and comments from the regulators. The ROD serves as legal certification that the remedy was selected in accordance with the requirements of CERCLA and the NCP. Per the NCP (Section 300,430 (f)(6)), after the ROD is signed, the Army shall:

1) Publish a notice of the availability of the ROD in a major local newspaper of general circulation (the EPA will publish the notice in the Federal Register), and

2) Make the ROD available for public inspection and copying at the information repositories at or near the facility prior to 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 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 or if recently developed technology may be more beneficial towards cleanup). If, after re-evaluation, the selected remedy changes, the ROD will have to be amended or "re-opened" before the changes can be implemented.

DD. The Army has adopted the term "decision document" for the documentation of 1) removal (REM) or interim remedial action (IRA) and remedial action (RA) decisions at non-NPL installations and 2) sites at NPL installations at which REM/IRA decisions have been made. The DD consists of six parts:

1. Purpose
2. Site Risk
3. Remedial Alternatives
4. Public/Community Involvement
5. Declaration
6. Approval and Signature

The DD for sites not covered by an IAG/FFA need not be an elaborate document and in most cases will only be two to three pages in length for simple projects. The DD represents the Declaration Section of a ROD. All DDs will be maintained in the installation Administrative Record and the installation's permanent environmental files.

For an outline format and DD example, see Attachment C of this management plan.

ROD/DD Review and Approval Procedures.

Responsibilities. Installations and MACOMs ensure that DDs or RODs that commit the Army to future expenses are (1) eligible for ER,A funding, (2) on the IRP Obligation Plan, and (3) conform with priorities for risk reduction. The Army will not support funding ineligible IRP actions with ER,A funds. Installations will fund those projects with installation operating funds. Projects not complying with the above may require re-negotiation of agreements with regulators.

Installations prepare RODs/DDs, staff the RODs/DDs for review and concurrence of the selected action, and obtain the appropriate approvals prior to requesting the release of funds for award of a REM/IRA/RA contract. Projects awarded prior to development and approval of RODs/DDs are subject to contract modification and will be reported to the ACSIM during In-Progress Reviews.

Review Procedures. After an installation has prepared a ROD/DD, and prior to submittal for appropriate approval signature, all documents are staffed through the installation chain-of-command (the RPM, and servicing public affairs and legal offices). Copies of the draft

document are sent to the appropriate environmental MACOM representative and review includes legal and public affairs at the MACOM. Draft copies of the ROD/DD are also provided to the appropriate USAEC and USACHPPM representative for review and concurrence with the selected action.

Approvals. Once the draft DD/ROD has been reviewed and concurrences have been received from the installation RPM and servicing public affairs and legal offices, MACOM, USAEC and USACHPPM, the document should be forwarded, with concurrences, for signature by the appropriate authority. Signature authority for NPL RODs shall not be delegated below a general officer (GO) or Senior Executive Service (SES) official. The only exception is that an Installation Commander or other designated authority, regardless of grade/rank, may sign NPL RODs selecting the no action alternative. Regulators should not sign the DD/ROD prior to all Army command channel concurrence. The ROD is also not to be submitted for approval prior to approval of the final Feasibility Study report.

a. The ACSIM approves all DDs, including NPL RODs, greater than \$6 million. MACOMs should submit 5 copies of final RODs/DDs with concurrence, needing ACSIM approval for staffing to ODEP.

b. The MACOM commander approves DDs, including NPL RODs, between \$2 million and \$6 million.

c. The Installation Commander approves DDs, including NPL RODs, less than \$2 million.

Timelines. After preparing the ROD/DD, installations must allow sufficient time for staffing at each level in the chain-of-command.

a. Review and Concurrence -- Army policy for staffing RODs/DDs suggests that 60 to 90 days be allowed for technical review and concurrence to the installation staff, MACOM, USAEC, USACHPPM and the regulators (if appropriate).

b. Approval and Signature -- Army policy for staffing RODs/DDs suggests that 20 to 45 days be allowed for approval and signature by ICs, MACOM commanders, and the ACSIM.

Copies. Copies of signed DDs, including RODs, at a minimum should be provided to each level in the chain-of-command below the approval authority and to the USAEC. The approving organization should also provide a copy of signed RODs to the ACSIM(DAIM-ED) and the DASA (ESOH). All signed RODs/DDs are to be reported in the DSERTS.

Policy for staffing and approving DDs including NPL RODs is contained in the 16 Nov 95 memorandum from the ACSIM, subject: Revised Interim Policy for Staffing and Approving Decision Documents (DDs). Available on the Internet at <http://www.denix.osd.mil/denix/Public/Policy/Army/Intpol/dds1.html>

Staffing and approval procedures are also in the draft final DA PAM 200-1 (May 1998) Section 11-15. Available on the Internet at <http://denix.cecer.army.mil/denix/DOD/Policy/component.html>

7.2 Five-Year Reviews

In accordance with the National Contingency Plan , if hazardous substances, pollutants, or contaminants remain at a site after the remedial action, at levels that do not allow for unrestricted use, the Installation Commander will review the remedial action (long term monitoring results, ARARs, Land Use Controls, etc.) to ensure that human health and the environment are being protected.

This review will be made every five years, or in accordance with the ROD/DD. The first review will be conducted five years after the initiation of on-site construction for the first operable unit (OU) requiring a five-year review. All OUs 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 which allow for unrestricted use for all OUs. MACOMs will be responsible for designating a five-year review executor. Usually five-year reviews will be conducted by the IRP Executor. The USAEC is in the process of developing specific guidance for conducting five-year reviews.

See Attachment D for the latest guidance concerning the Army's CERCLA Five-Year Review Requirements at Army Installations, 17 Jul 98.

7.3 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 the sole or the major source of the release. Off-site actions are complex and require extensive coordination because of the lack of Army control over the off-site property and the necessity for increased interaction with the public.

Army Regulation 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 Installation Commander to approve off-site data collection to determine contamination migration and any off-post monitoring to ensure that contamination has not migrated off-site. If there is an actual or high potential health threat to personnel on or off the installation, the DASA (ESOH) will be immediately notified by the Installation Commander through the chain of command. The DASA (ESOH) approves off-post response actions to start or stop a provision for bottled water, alternative water supplies, well head 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.

Requirements for notification procedures and the response plan can be obtained from the draft final DA PAM 200-1 (May 1998) Section 11-15. Available on the Internet at <http://denix.cecer.army.mil/denix/DOD/Policy/component.html>.

7.4 Independent Technical Review (ITR)

In 1997, the Army initiated an ITR Program for both the IRP and the BRAC Environmental Restoration Program. A team of independent technical experts review specific remediation projects for installations and provide recommendations concerning the technical feasibility of the projects. The Army ITR Program ensures that the remedial response for a site will reduce risk to an appropriate level and will be an effective and efficient use of the Army's environmental restoration funds. Selected installations must be prepared to participate in the Army's ITR Program.

The ITR process involves three phases.

Phase 1 – Project Selection. FY+1 and FY+2 cleanup projects from the investigation phase through remedial action operation and monitoring that have an estimated CTC in excess of \$2 million are reviewed for ITR consideration. The installation, MACOM, USAEC, or the ACSIM may recommend other projects not meeting this criteria be reviewed, if the project could benefit from the ITR process. After projects are selected for ITR, the installation RPM completes and submits information for each project to the ITR Team prior to commencement of the review.

Phase 2 – Technical Review. The composition of the ITR Team includes technical personnel who have a broad knowledge of all aspects of CERCLA/SARA, RCRA, and other environmental programs. The team members can be technical experts from private consultants, EPA and state regulatory agencies, academia, USAEC, USACHPPM, USACE, and appropriate USACE and Army laboratories. Participation by regulatory agency project managers is encouraged for both EPA and state project personnel. An appropriate review structure is established for each installation selected for ITR based on the number of major projects. Reviews are conducted at either the installation or a designated off-site location or may be conducted via telephone conference.

Phase 3 – Recommendations/Results. The ITR Team provides advice and recommendations to the installation, MACOM, and USAEC focusing on the technical merits of the project in a draft report that summarizes the results of the review. Although technical merit is the primary goal of the review, other factors may have a significant role in the decision making process. For example, interpretation of regulations, state requirements or guidance policies generally have a large impact on decisions. ITR recommendations specify technical issues, identify other factors controlling the decision making process, and predict the impact these factors have on risk management, and cost-benefit balance. The review team's recommendations are to be consistent with Army policy.

The ITR will provide a rationale as to why the recommendation is being made, the assumptions on which the recommendations is based, and options that the installation can consider to help implement the recommendation. The installation prepares a written response to the draft report. The MACOM and USAEC may provide written comments as appropriate. If the installation does not feel that the recommendation can be carried out, the rationale must be provided. After issues have been resolved the final report is distributed to the installation, MACOM, and USAEC.

7.5 Interagency Agreement (IAG)/Federal Facility Agreement (FFA)

Per CERCLA, Sec. 120, within 180 days after EPA's review of the final RI/FS for NPL sites, the EPA and the installation must enter into an IAG/FFA for the cleanup effort. All signed IAG/FFA information (parties and dates) are reported in the DSERTS. A copy of the final IAG/FFA must be furnished to the USAEC. Although CERCLA does not require an IAG/FFA until after the RI/FS phase, as a general practice, the Army has entered into these agreements early in the investigative phase to ensure adequate regulatory participation in the steps leading to remedy selection.

Upon nomination to the NPL, EPA Regions will request that the installation and State regulator enter into an IAG/FFA. The IAG/FFA addresses the completion of all necessary remedial actions at the installation. The Installation Commander and the DASA (ESOH) will both sign the IAG/FFA for the Army. DoD and EPA developed model language (currently being revised by DoD and EPA) that forms the basis for negotiations. Deviations to the model language must be approved by ODUSD (ES/CL). 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.

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/MACOM request assistance. When the IAG/FFA is sent to DASA (ESOH) through the command chain for signature, the ACSIM requests concurrence from the 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.

Reimbursement for non-Army Activities. While highly discouraged, an IAG/FFA may include language that the Army will reimburse other agencies (outside of the Army) for services associated with cleanup. These services must be those that the Army does not have the capability of providing and therefore are incidental to cleanup.

For the IAG/FFA model language, see Appendix A, "U.S. Army Environmental Restoration Programs Guidance Manual", U.S. Army Environmental Center, April 1998. Available on the Internet at <http://www.denix.osd.mil/denix/Public/Policy/policy.html>

7.6 Implementation of the Federal Facilities Environmental Restoration Dialogue Committee (FFERDC) Report Recommendations

The FFERDC was a federal advisory committee that made recommendations to federal agencies for improving their restoration programs. The Army and the other DoD Components participated in the FFERDC along with representatives of other federal agencies, states, local governments and citizen and environmental interest groups. Recommendations of the committee are listed in a 1996 final report, and primarily involve consultation with stakeholders such as regulatory agencies, other federal, state, and local agencies, Native American tribes and the local community.

The Army supports the FFERDC recommendations regarding consultation with stakeholders, and implementation will be accomplished in the following ways:

1. Installations will consult with stakeholders throughout the IRP planning and execution process. Consultation involves providing information and seeking feedback/input before decisions are made. The Army retains final decision authority as lead agency, however. Consultation should begin in the program formulation phase, and continue to site closeout. 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. (See section 7.8, Public Participation and Community Involvement). 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 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.

2. When changes to the program become necessary, installations will consult with stakeholders, to the extent possible, before final decisions are made. When time does not allow stakeholder participation in the decision process, installations should inform RAB members as soon as possible on what actions were taken and why they were taken.

The Final Report of the Federal Facilities Environmental Restoration Dialogue Committee (FFERDC), April 1996 is available on the Internet at <http://www.epa.gov/swerffrr/ferdcrypt/toc.htm>

7.7 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 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 (1) relative risk site evaluations, (2) project planning, budgeting, and implementation (including IAPs), (3) work plan development and site and project prioritization, (4) site close-out determinations, and (5) RABs and other community involvement initiatives.

7.8 Public Participation and Community Involvement

Local communities are interested in the results of environmental studies conducted under the IRP 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 comments of the interested individuals, groups, and government bodies before selecting a remedial alternative.

Community Relations Plan. A community relations plan is required for all Army properties on or proposed to the NPL. Installations that are not on or proposed to the NPL, are strongly encouraged to establish a community relations plan. The community relations plan provides the guidelines for future community relations activities for an installation.

Environmental Justice. Army installations will address and consider environmental justice concerns and issues in its restoration programs. On February 11, 1994, the President issued Executive Order 12898 entitled *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. The executive order 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 Community Relations Plan. A primary mechanism for input from the environmental justice community on restoration issues will be from RABs.

For additional information on Environmental Justice see the Department of Defense Strategy on Environmental Justice, 24 Mar 95. Available on the internet at http://www.denix.osd.mil/denix/DOD/Webnotes/get_text.cgi/denix/DOD/Working/Closure/ARMY/army.html?dod.closure.general/29/0

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, and appropriate EPA, state and local authorities, and a public representative(s) of the community(s). The Installation Commander is responsible for establishing and chairing or designating an installation/Army chairperson for the TRC.

Restoration Advisory Board (RAB). To facilitate public involvement, the Army strongly recommends the establishment of RABs. 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 IRP *must determine community interest* in establishing and participating in a RAB. TRCs will be converted to RABs at installations that are interested in establishing RABs. RABs meet the requirement of 10 USC 2705(C).

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.

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.

Policy on the role of RABs is contained in the 7 May 96 memorandum from the ASA (IL&E), subject: Issuance of Army Policy - The Role of Restoration Advisory Boards (RAB) s in Environmental Cleanup. Available on the Internet at <http://www.denix.osd.mil/denix/Public/Policy/policy.html>.

For additional RAB guidance and information on TAPP, see U.S. Army Restoration Advisory Board and Technical Assistance for Public Participation Guidance, April 1998. Available on the Internet at <http://www.denix.osd.mil/denix/Public/Policy/policy.html>

8.0 RELATED ISSUES

As cleanup at installations continues to address contamination, new challenges resulting from changing regulations and additional cleanup requirements are confronted. The Army recognizes these challenges and are developing clarifying guidance to address the ramifications to budgeting, scheduling, and accomplishment of IRP cleanup goals. Several of the issues being examined include:

- Unexploded Ordnance
- Lead - Based Paint Hazards
- Land Use Controls
- Site Close-Out
- Natural Resource Injuries
- Cost Recovery/Cost Sharing
- Chemical Warfare Agents
- Radiological Surveys

Attachment E presents additional information on each of these issues.

9.0 AVAILABLE GUIDANCE

9.1 Defense Environmental Network and Information Exchange (DENIX)

As part of the DoD effort to consolidate environmental information management, a DoD-wide electronic bulletin board system was created to facilitate and support communications and environmental awareness. This system, DENIX, incorporates the data, information, and requirements of the DoD components and contains all the information that was previously available in the DoD, Army, Navy, and Air Force bulletin boards. DENIX provides DoD personnel with a central communications platform that allows timely access to environmental related legislative, compliance, restoration, and DoD guidance information. The Army ensures that all major regulations, policies and guidance related to the IRP are available on DENIX.

9.2 References

For a list of available Army IRP guidance, see Attachment F of this management plan.

ATTACHMENT A

MAJOR ARMY IRP INSTALLATIONS

**ATTACHMENT A
MAJOR ARMY IRP INSTALLATIONS**

U.S. ARMY MATERIEL COMMAND

Industrial Operations Command

Badger AAP
Bluegrass Army Depot
Cornhusker AAP
Hawthorne AAP
Holston AAP
Indiana AAP
Iowa AAP
Joliet AAP
Kansas AAP
Lake City AAP
Lone Star AAP
Longhorn AAP
Louisiana AAP
McAlester AAP
Milan AAP
Pine Bluff Arsenal
Radford AAP
Ravenna AAP
Riverbank AAP
Rock Island Arsenal
Scranton AAP
Sierra Army Depot
Sunflower AAP
Tooele Army Depot
Twin Cities AAP
Volunteer AAP
Watervliet Arsenal

**Tank-automotive and Armaments
Command**

Anniston Army Depot
ARDEC (Picatinny Arsenal)
Lima Tank Plant
Red River Army Depot

Test and Evaluation Command

Aberdeen Proving Ground
Dugway Proving Ground
White Sands Missile Range
Yuma Proving Ground

Aviation Missile Command

Redstone Arsenal
Letterkenny Army Depot

Soldier and Biological Chemical Command

Deseret Chemical Depot
Newport Chemical Activity
Rocky Mountain Arsenal
Soldier Systems Center

Army Research Laboratory

Adelphi Laboratory Center

Communications-Electronics Command

Fort Monmouth
Tobyhanna Army Depot

U.S. ARMY RESERVE COMMAND

63rd Regional Support Center
70th Regional Support Center
77th Regional Support Center
88th Regional Support Center
89th Regional Support Center
90th Regional Support Center
94th Regional Support Center
96th Regional Support Center
99th Regional Support Center
Charles E. Kelly Support Facility
Fort Dix
Fort Hunter Liggett
Fort McCoy
Parks RFTA

U.S. ARMY FORCES COMMAND

Fort Bragg
Fort Campbell
Fort Carson
Fort Drum
Fort Gillem
Fort Hood
Fort Irwin
Fort Lewis
Fort McPherson
Fort Polk
Fort Riley
Fort Stewart/Hunter AAF
Yakima Training Center

***U.S. ARMY TRAINING AND DOCTRINE
COMMAND***

Fort Benning
Fort Bliss
Fort Eustis
Fort Gordon
Fort Huachuca
Fort Jackson
Fort Knox
Fort Leavenworth

Fort Lee
Fort Leonard Wood
Fort McClellan
Fort Rucker
Fort Sill
Fort Story
Presidio of Monterey

NATIONAL GUARD BUREAU

Camp Crowder
Camp Johnson
Camp Navajo
Camp Roberts
Farmingdale WETS
Florence Military Reservation
Fort Allen
Fort Chaffee Maneuver Training Center
Fort Jacob F. Wolters
Los Alamitos AFRC
Massachusetts Military Reservation
National Guard Facility, Rehoboth
Waiawa Gulch

U.S. ARMY PACIFIC COMMAND

Fort Greely
Fort Richardson
Fort Wainwright
Gerstle River Test Site
Haines Fuel Site
Fort Shafter
Schofield Barracks
Tripler Army Medical Center

U.S. ARMY MEDICAL COMMAND

Camp Bullis
Fort Detrick
Fort Sam Houston

***U.S. ARMY SPACE AND MISSILE
DEFENSE COMMAND***

Stanley R Mickelson Safeguard Complex

***U.S. ARMY MILITARY DISTRICT OF
WASHINGTON***

Fort Belvoir
Fort George G. Meade
Fort McNair
Fort Myer
Phoenix Military Reservation

U.S. MILITARY ACADEMY

West Point Military Academy
Stewart Army Subpost

U.S. ARMY CORPS OF ENGINEERS

Cold Regions Research Engineering Laboratory

ATTACHMENT B

EXAMPLES OF ACTIVITIES ELIGIBLE AND INELIGIBLE FOR FUNDING

ATTACHMENT B

Examples of Eligible and Ineligible Restoration Activities

Activities Eligible for ERA 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 damaged 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 IRP. 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.

CERCLA response actions and eligible RCRA corrective actions identified in FFA/IAGs.

Corrective actions at solid waste management units (SWMUs) needed because of past Army activities when the SWMU was inactive or closed prior to being subjected to RCRA 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 IRP activities. (Note: These fines must be identified in the BES for the budget year.)

Activities Not Eligible for ER,A Funding

Closing or capping sanitary landfills unrelated to a hazardous waste cleanup action.

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

Testing or repair of active underground tanks and costs of replacing leaking underground tanks.

Costs of storing or replacing 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 which 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 at active ranges.

ATTACHMENT C
DECISION DOCUMENT OUTLINE

ATTACHMENT C

DECISION DOCUMENT OUTLINE

1. PURPOSE

This decision document describes the selected action to _____ (state action) _____ at the _____ (name of site) _____ at _____ (installation) _____ chosen in accordance with the CERCLA as amended by the SARA, the NCP, RCRA, and AR 200-1, as applicable.

Give a brief description of the site, including DSERTS number, type of operation that caused a release, dates the site operated, and the hydrogeologic setting. Also, briefly describe the nature and extent of contamination and how the site poses a risk to human health and the environment. State what action/remedy has been selected and how the selected action will eliminate or reduce the risk to human health and the environment.

This removal/interim remedial/remedial action alternative was selected by _____ (installation) _____, with support from _____ (State or EPA) _____.

2. SITE RISK

Give a brief description of the results of any risk assessments or risk considerations at the site. Discussion should, at a minimum, address exceedence of state and Federal maximum contaminant levels for the given media of concern, exposure pathways, known or potential health or ecological effects of contaminant, and overall risk which could result from the contamination at the site if no remedial action were taken. Do not include relative risk site evaluations as a measure of risk for a decision document.

3. REMEDIAL ALTERNATIVES

Briefly describe the remedial alternatives considered, the selected remedial alternative, and provide an explanation/rationale of why the remedial method was selected and the expected goals or long-term effectiveness of the remedy. State negotiated cleanup levels/goals and any planned remedial action operations and monitoring.

If desired, or deemed necessary, reference any technical documents supporting this decision, i.e., "The alternative(s) summarized here are described in the remedial investigation and feasibility study (RI/FS) report dated _____ which should be consulted for a more detailed description of all the alternatives".

4. PUBLIC/COMMUNITY INVOLVEMENT

At a minimum, describe what steps were taken to involve the public in the selection of the remedy. Unless an emergency situation exists, as defined by the removal action criteria in the NCP, part 300.415(b) (2), the public is afforded an opportunity to review and comment on any proposed remedial action.

5. DECLARATION

See attached declaration statements. Choose the declaration statement that best describes the site and situation.

6. APPROVAL AND SIGNATURE

Re-state the selected alternative, the total cost of the action and the appropriate approval authority for the action. The appropriate approval authority is based on the cost of the action described in the decision.

- a. The ACSIM, approves all DDs greater than \$6 million..
- b. The MACOM commander approves DDs between \$2 million and \$6 million.
- c. The Installation Commander approves DDs less than \$2 million.

DECLARATION STATEMENTS - SECTION 5

1. When the selected remedy satisfies the statutory preference for treatment as a principal element, by treating at least the principal threat(s) posed by the site, the declaration should state:

"The selected remedy is protective of human health and the environment, attains Federal and State requirements that are applicable or relevant and appropriate to this interim remedial action (or removal) [or "a waiver can be justified for the Federal or State applicable or relevant and appropriate requirement that will not be met"], and is cost effective. This remedy satisfies the statutory preference for remedies that employ treatment that reduces toxicity, mobility or volume as a principal element and utilizes permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable."

2. When the selected remedy for the site involves little or no treatment to reduce toxicity, mobility or volume of contaminants, that is, treatment is not utilized to address the principal threat(s) posed by the site, CERCLA requires a statement explaining why such a remedial action is not chosen. The declaration in this case should state:

"The selected remedy is protective of human health and the environment, attains Federal and State requirements that are applicable or relevant and appropriate to this interim remedial action (or removal) [or "a waiver can be justified for the Federal or State applicable or relevant and appropriate requirement that will not be met"], and is cost effective. This remedy utilizes

permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable for this site. However, because treatment of the principal threats of the site was not found to be practicable [or "within the limited scope of this action"], this remedy does not satisfy the statutory preference for treatment as a principal element of the remedy." This must be followed by the rationale for this finding based on the specific factors used to determine that treatment is either impracticable or not within the limited scope of this action. In addition, a brief statement that past or future operable units will meet the statutory preference for treatment should be included when appropriate.

3. If the remedy will leave hazardous substances on-site above health-based levels, the Declaration should include the following:

"Because this remedy will result in hazardous substances remaining on-site above levels that allow for unlimited use and unrestricted exposure, a review will be conducted within five years after commencement of remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment."

4. If the remedy will not leave hazardous substances on-site above health-based levels, the Declaration should include the following:

"Because this remedy will not result in hazardous substances remaining on-site above levels that allow for unlimited use and unrestricted exposure, the five-year review will not apply to this action".

DECISION DOCUMENT FOR A SOIL REMOVAL

COOLVILLE ARMY DEPOT, ALABAMA

1. PURPOSE

This decision document describes the selected action to remove contaminated soils at the Acid Pond site at Coolville Army Depot, Alabama. This action was chosen in accordance with the CERCLA as amended by the SARA, the NCP, RCRA and AR 200-1, as applicable.

The Acid Pond site (DSERTS number CVAD-13) contains two unlined ponds surrounded by earth berms located within a heavily wooded area. The ponds were in operation from 1949 until 1973. It is reported that the ponds received acid wastes from batteries, shell de-rusting operations, and approximately 17,000 mustard-filled projectiles (155mm) from a reconditioning operation in 1955. A tributary to Lake Eric drains to the south along the base of the slope west of the ponds. Lake Eric is the water supply for Coolville Army Depot.

Elevated levels of arsenic, cadmium, chromium, lead, selenium in soils, surface water and ground water near the site indicate that contamination is migrating from the Acid Pond site. Given the close proximity of the Acid Pond site to the installation water supply (Lake Eric), the decision was made to remove the contaminated soils (the source of contamination to the surface water and ground water), regrade the site, and monitor the ground water.

This removal action alternative was selected by the Army with support from the Alabama Department of Environmental Management and the Region IV, U.S. Environmental Protection Agency (EPA).

2. SITE RISK

Investigation of this site began in 1982. At those times low levels of zinc and nitrite/nitrate was detected in ground water and chromium and lead were detected in downgradient surface-water samples. In 1989, maximum concentrations of arsenic, cadmium and chromium in soil from the site exceeded risk-specific dose values for carcinogens. Ground water at the site also exceeded state and federal maximum contamination levels for chromium, lead and selenium. In 1994, continued investigation determined that concentrations of contaminants increased in surface water and ground water.

Area drainage from the Acid Pond site occurs primarily by surface runoff into a tributary west of the ponds that drains south into Lake Eric. Lake Eric is located approximately 800 feet from the Acid Pond site. Potential receptors of contamination from the Acid Pond site are installation personnel (from the water supply provided by Lake Eric); employees working near the site, cattle, deer and small game animals, as well as aquatic life.

3. REMEDIAL ALTERNATIVES

Remedial alternatives proposed from the Corrective Measures Study and the Interim Remedial Action Study for the Acid Pond site were:

-- No Action. This action does not prevent the continued migration of contaminants from the soil to the surface water and groundwater, therefore, the potential risk of exposure through the installation water supply remains. Potential exposure to installation personnel working near the site and exposure to the ecology also remains.

-- Institutional controls (site fencing and monitoring). This action would provide adequate protection of facility personnel working near the site and to several ecological factors, however, since the source of contamination would remain as well as the migration pathways, the installation water supply remains a potential exposure pathway. Potential exposure to aquatic life would also remain.

-- Multi-layer cap and institutional controls (site fencing and monitoring). This action would provide adequate protection of facility personnel working near the site and large land animals. This action would decrease water infiltration at the site and possibly reduce leachate generation. Since the source of contamination would remain, the installation water supply remains a potential exposure pathway. Potential exposure to aquatic life would remain but would be reduced. Monitoring would have to be long-term due to the proximity of the Lake Eric water supply.

-- Soil removal and limited institutional controls (monitoring). This action would consist of removing and disposal of contaminated soil and regrading the Acid Pond site. Institutional controls would be limited to monitoring the groundwater and surface water. This action would eliminate the source of contamination and thereby be protective of any exposure to humans, animals and aquatic life. With the removal of the source, the groundwater contaminant concentrations should naturally attenuate.

The alternative selected for remediation of the Acid Pond site is soil removal with limited institutional controls. As the site characterization, risk assessment and study of alternatives have been completed for this site; it is planned that this action will be the final remedial action for this site. Cleanup levels in soil of 1 ppb for chromium, 3 ppb for cadmium and 5 ppb for arsenic as well as 5 ppb for lead and selenium were negotiated with the EPA and the State of Alabama. Groundwater and surface water monitoring will occur annually for three years after completion of the removal.

4. PUBLIC/COMMUNITY INVOLVEMENT

Coolville Army Depot has a Community Relations Plan. In accordance with the Community Relations Plan, a public notice will be placed in the local newspaper announcing the remedial activities to be completed at the Acid Pond site.

5. DECLARATION

The selected remedy is protective of human health and the environment, attains Federal and State requirements that are applicable or relevant and appropriate to this removal action, and is cost effective. This remedy satisfies the statutory preference for remedies that employ treatment that reduces toxicity, mobility or volume as a principal element and utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable. Because this remedy will not result in hazardous substances remaining on-site above levels that allow for unlimited use and unrestricted exposure, the five-year review will not apply to this action.

6. APPROVAL AND SIGNATURE

The selected alternative for the Acid Pond site is soil removal and limited institutional controls. The total cost of this action is estimated at \$1 million. The appropriate approval authority for this action is the Coolville Army Depot Installation Commander.

APPROVED BY:

W. H. JONES
Colonel, CM
Commanding

ATTACHMENT D
FIVE YEAR REVIEW GUIDANCE

ATTACHMENT D

Assistant Chief of Staff for Installation Management (ACSIM) Guidance for Army Compliance with Comprehensive Environmental Response Compensation and Liability Act (CERCLA) Five-Year Review Requirements

1. **Introduction:** This guidance outlines the rationale for approach to conducting CERCLA five-year reviews at Army installations. These reviews, along with efforts to optimize long-term monitoring (LTM) and long-term operations (LTO), are an opportunity to evaluate ongoing remedial actions to ensure that they continue to be cost effective and are achieving their remedial action objectives. This shall also be the time to consider whether or not to petition the U.S. Environmental Protection Agency (EPA) to delete the site from the National Priorities List. The costs of LTO and LTM will consume an increasing proportion of the Army's restoration budget in the coming years. Therefore it is critical that the Army institutionalize a process to ensure five-year reviews be conducted in a timely, technically proficient manner which identifies all potential cost savings. This guidance outlines steps to ensure these goals are met.

2. **Objective:** To implement a system at the Office of the Assistant Chief of Staff for Installation Management (ACSIM) for tracking the completion of five-year reviews; to prepare and disseminate Army guidance on the format, scope, and cost for such reviews to assure they are conducted in a consistent, and cost-effective manner; and to use the five-year review process to analyze ongoing remedial actions for potential cost savings.

3. **Background:**

a. The CERCLA and the National Contingency Plan (NCP) require a review of all remedial actions which do not achieve unrestricted use cleanup levels be conducted every five years to assure they are still protective of human health and the environment. The NCP states "If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after initiation of the selected remedial action." This requirement applies to both National Priorities List (NPL) sites and non-NPL sites as long as they are being addressed under the Defense Environmental Restoration Program. The commitment to conduct such reviews must be stated in the Record of Decision (ROD) or Decision Document (DD). The initiation of five-year reviews is triggered by the start of the first remedial action that requires such a review. Since the rate of finalizing RODs and DDs and initiation of remedial actions began to increase in the 1992-1994 time period, the need to conduct such reviews will steadily increase over the next several years.

b. The five-year review provides the Army an ideal opportunity to conduct a project review to determine if ongoing remedial measures are still cost effective and technically sound. As the many active remedial systems continue to operate, their continuance may be somewhat taken for granted in the business of getting O&M budgets approved and assuring that are operating correctly. A periodic review, such as every five years (or more frequently), would be a chance to evaluate, in depth, the need for the remedial action and the Army's continued support of the long-term O&M costs. The review would focus on determining if a remedy has already reached completion and may be terminated, or whether the remedy might be replaced by other more state-of-the-art remedies that would achieve the same results at less cost.

c. The responsibility to conduct the five-year reviews and prepare five-year review reports lies ultimately with the installation/major Army command (MACOM). Such reviews would require personnel experienced in the selection and/or modification of CERCLA remedies and familiar with current requirements in the environmental field and current DOD/Army environmental policies (e.g., emphasis on justifying natural attenuation).

d. To ensure both consistency within the Army and technical objectivity, ACSIM review and approval of the five-year review report is necessary. This review will provide a broad unbiased perspective and an awareness of national trends, which might not be always possible by staff closer to the project.

4. Implementation: The Army plan for conducting five-year reviews is as follows:

a. The USAEC will develop guidance to conduct/staff/approve five-year reviews for distribution by ACSIM to all MACOMs and installations. Guidance development would be coordinated with the other DOD services as appropriate or desirable. Currently, the EPA has two guidance documents on conducting such reviews. They are: Structure and Components of Five Year Reviews, OSWER Directive 9355.7-02, dated May 23, 1991; and Supplemental Five Year Review Guidance, OSWER Directive 9355.7-02A, dated July 1994.

b. The USAEC will add a field to the Defense Site Environmental Restoration Tracking System (DSERTS) database to track deadlines for conducting five-year reviews and dates for completing such reviews at each site.

c. The USAEC will review the cost-to-complete projections against the DSERTS database to ensure that sufficient resources are planned to conduct five-year reviews within the required timeframes.

d. The USAEC will distribute yearly to affected/responsible installations/MACOMs a memorandum notifying them that a five-year review is needed in the next fiscal year. The list of installations would be determined from DSERTS, using the field showing completion date of RODs and DDs. Such notice will allow funding requests to be processed by the installations and/or MACOMs.

e. Active installations will prepare draft five-year review reports wherever possible. As directed by the ACSIM, USAEC will conduct the reviews and prepare reports at the request of active installations that do not have the capability to conduct such reviews and at Base Realignment and Closure (BRAC) installations for which there is no other executor. The USAEC will retain engineering, consulting, and contracting capability to execute such reviews.

f. The USAEC will receive, review, and through ACSIM, approve all draft five-year review reports, and retain a copy of all final review reports in its Technical Information Center. The ACSIM approval of the review report is required because the five-year review is used to make a significant decision about whether or not the Army must allocate funds for treatment system operation and LTM.

ATTACHMENT E
RELATED ISSUES

ATTACHMENT E

RELATED ISSUES

1. Unexploded Ordnance (UXO)

Responding to UXO is one of the DoD's most difficult and underfunded challenges. At present, UXO response is technologically limited, lengthy and expensive. The total acreage requiring UXO response is unknown and there is no comprehensive cost estimate for UXO response. In the past UXO response was not considered an environmental issue, but rather solely a safety issue. However, the Federal Facility Compliance Act of 1992 required the EPA to determine when conventional and chemical military munitions become a hazardous waste under RCRA. Thus, now UXO response must address safety and environmental concerns.

The EPA issued the Military Munitions Rule, effective August 12, 1997 in response to the requirement of the Federal Facility Compliance Act of 1992. Recognizing that part of DoD's mission is to train troops in the safe and effective use of munitions, the Military Munitions Rule identified military munitions as a hazardous waste when UXO is (1) removed from the range for storage, reclamation, treatment, or disposal, or (2) recovered then disposed of by burial/land-filling, either on or off-range. The Munitions Rule also recognized that fired munitions that land off range and are not promptly rendered safe and/or retrieved are subject to RCRA. In the Munitions Rule, EPA postponed action on whether to identify military munitions left on closed or transferred ranges as subject to RCRA.

The DoD proposed the Range Rule on September 26, 1997 to address explosive safety, human health, and environmental concerns related to military ordnance on closed, transferred, and transferring ranges. The Range Rule lays out the program the DoD will use to address UXO at closed, transferred, and transferring ranges.

Response to unexploded ordnance at *active* ranges on operating installations will remain an ineligible restoration cost and should not be programmed with ER,A resources. Response to unexploded ordnance at *closed* ranges, upon publication of the final Range Rule will be new restoration requirements. A *closed range* is a military range that has been taken out of service as a range and that either has been put to new uses that are incompatible with range activities or is not considered by the military to be a potential range area. A *closed range* is still under the control of a DoD component.

2. Lead-Based Paint Hazards

The appropriateness of using CERCLA to address lead in soil as a result of historic use of lead-based paint is an issue of debate between the DoD and the EPA.

EPA is of the opinion that lead released from lead-based paint is a hazardous substance under CERCLA and that the President has the authority to take removal and other response measures pursuant to section 104 of CERCLA. DoD questions the appropriateness of using CERCLA mechanisms to address lead from lead-based paint only at property being transferred at DoD installations. It is DoD policy to comply with the requirements of the Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X of the Housing and Community Development Act, Public Law 102-550).

DoD and the EPA are currently negotiating how DoD will respond to lead-based paint hazards at military properties. Guidance for addressing lead-based paint hazards is expected in FY99. Until further policy and guidance is presented, costs of lead-based paint surveys, containment, removal or disposal (except when incidental to a response action) continues to be an ineligible cleanup cost.

3. Land Use Controls

Land Use Controls (LUCs) are measures the Army can take to limit access to areas of contamination and protect property users and the public. LUCs include institutional controls and engineering controls. Institutional controls (ICs) are legal mechanisms that insure that any restrictions on land use and any engineering controls put in place to implement a selected remedy are maintained. Engineering controls are those physical mechanisms that implement the remedy selected for the cleanup of a site. As the IRP progresses and more and more remedies are put in place, numerous questions have arisen regarding the decisions leading up to use of LUCs.

The DoD and the Army are currently developing policy on the use of LUCs under the DERP for active/operating installations. Guidance on LUCs is expected in FY99.

4. Site Close-Out

The purpose of the IRP is to protect public health and the environment from releases of hazardous substances from past disposal and spill sites. If a site does not threaten public health or the environment, it should be closed out. Currently, the Army is working with the other DoD Component Services to develop guidance for uniform close-out considerations and procedures.

The conditions required to justify site closeout decisions are site-specific. Key objectives of site closeout are to ensure that:

- The site closeout decision is formally made by MACOM (or the Installation Commander, if that responsibility has been so delegated).
- The site closeout decision is documented.
- Regulatory authorities and the public are notified of the site closeout decision.
- Concurrence on the site closeout decision is received, if necessary, from the EPA and the state.
- Deletion is conducted, if the site is on the NPL.
- In general, the decision can be justified on any of the following findings:
- No evidence is collected in a preliminary assessment that indicates use of the site for hazardous waste handling, storage, or disposal.
- A site inspection or site characterization shows there is no possibility of direct contact, fire or explosion, and samples taken at the site show that no hazardous substances are migrating or likely to migrate from the site.
- The conclusion of a public health evaluation or baseline risk assessment states that there is no significant threat to public health or the environment.
- Site closeout is the selected alternative from the Selection of Remedy step.
- The successful completion of monitoring, removals, remedial actions, or post project activities has occurred.

5. Natural Resource Injuries

In 1998, DoD formed a committee to create policy and guidance to comply with the natural resource sections of CERCLA and the Clean Water Act. This committee has not yet completed this policy. However, where appropriate, installations may need to consider Natural Resource Injuries (NRIs) before remedy selection.

NRIs refer to a measurable adverse change in the chemical or physical quality or viability of a natural resource caused by a release or threatened release of a hazardous substance". Injuries can occur to the following types of natural resources: surface water, groundwater, air, and geologic or biological resources. In many cases, investigations leading to a cleanup decision identify and quantify some injuries.

Until the DoD committee publishes its policy and guidance on natural resource injuries, it is recommended that any natural resource issues that arise at an Army installation be elevated up the Army chain of command for resolution.

6. Cost-Recovery/Cost Sharing

Section 348 of the Fiscal Year 1998 Defense Authorization Act required DoD to develop uniform guidelines for the Component Services and Defense Agencies regarding the policies and practices for recovering environmental cleanup costs from, or sharing costs with, third parties that have contributed to the contamination of DoD property. DoD has provided new direction to the Component Services concerning cost-recovery and cost sharing. The DoD directs Component Services to:

Identify all opportunities for the potential recovery or sharing of costs associated with environmental restoration from DoD contractors and other parties, public and private, that may have contributed to environmental contamination at DoD sites.

Investigate each activity where cost-recovery/cost sharing potential exists to determine if the likelihood of success to pursue cost-recovery/cost sharing outweigh the costs associated with pursuing such an action.

Pursue cost recovery/cost sharing activities to the extent practicable if such activity appears to be potentially cost-effective by:

- Obtaining all data that is relevant to cost recovery and cost sharing activities;
- Identifying any Defense contractor negligence or other misconduct that may limit or preclude DoD's obligation to indemnify or reimburse the contractor for the costs of environmental restoration at a DoD site; and
- Initiating actions, where appropriate, to recover the environmental cleanup costs incurred or to be incurred by the Department,
- Report annually, no later than November 30, to the Deputy Under Secretary of Defense (Environmental Security), each cost-recovery or cost-sharing action underway or completed. Include site name, location, status underway or complete, amount recovered/shared, and cost of pursuing the action. This information will be included in the Fiscal Year DERP Annual Report to Congress.

The Army is currently developing implementation guidance for recovering environmental cleanup costs from, or sharing costs with, third parties that have contributed to the contamination of Army property.

7. Chemical Warfare Agents

Environmental media potentially contaminated with residual amounts of chemical warfare agents (CWA) often pose problems for restoration projects that are disproportionate to the contamination's possible adverse environmental or public health impact. The issue of public sensitivity, coupled with the fact that, until recently, comprehensive information on the chronic toxicity associated with low-level exposures to CWA was difficult to obtain, clearly contributes to the additional complications. Ultimately, focusing on the potential human or environmental health aspects of the contamination (rather than on ancillary issues), as with industrial pollutants, will lead to the most cost-effective and responsible remedy.

Intrusive operations in areas potentially contaminated with CWA have unique safety and procedural complications, but it is important, not to overstate these complications. It is particularly important to thoroughly examine the need and specific objective of intrusive operations, in order to assure that the benefits of the effort are commensurate with the costs, and that the Army is in a position to effectively deal with the possible results of intrusive operations.

Specific policy and guidance on intrusive activities at CWA sites is being developed by the USAEC, along with supplemental documents addressing such things as sampling procedures, other specific technical and regulatory issues, and the role of the Project Manager, Non-Stockpile Chemical Materiel in handling recovered chemical munitions.

8. Radiological Surveys

Radiological surveys are conducted at areas identified in the PA where radioactive materials may have been used. In areas where it is unlikely that radioactive materials were used, a simple survey can be used to determine if radionuclides are present above background level. In areas where there is knowledge of the use or storage of radioactive material a more intensive radiological survey must be conducted. The intensity of the survey should account for the past use of the site and be based on factors such as:

- Suspected or known use of radioactive materials at a site,
- Storage conditions of the radioactive materials (sealed or unsealed sources, indoor or outdoor facility),
- Condition of the sealed sources
- Half-life of the radioactive material

Locations that are important to review include cannibalization or demilitarization facilities or yards where tanks, trucks, vehicles, or other systems may have been disassembled or dismantled. Many of these systems historically had radium painted dials that may have been broken during dismantling, releasing radioactive contamination to the surrounding area. Radium was not typically licensed and standard records may not exist. Also, when identifying the type of radioactive contamination that may be present, it is important to consider naturally- occurring radioactivity. Naturally occurring (background) radiation is found in all soils, rocks, bricks and cement, surface water, and groundwater.

During the Radiological Survey planning stages, it is important to involve all the appropriate regulatory agencies. This allows the radiological survey to be consistent with the most stringent detection limit requirements. A number of regulatory agencies are involved in the regulation of radioactive materials and wastes. The Nuclear Regulatory Commission (NRC) is required under the Atomic Energy Act (AEA) to regulate by-product, source, and special nuclear material. In some cases, this authority is delegated from the NRC to agreement states. Some states have promulgated their own regulations to deal with the use, handling, and disposal of radioactive materials. Different regulators may have different requirements with regard to how the survey is conducted and how the results are reported. There are also different reporting and health requirements. There may be two state agencies (public health and environmental) which have regulations governing radioactive materials. At the federal level, the environmental agency involved is the U.S. Environmental Protection Agency (EPA).

It is important when conducting the Radiological Survey to determine the type of materials used at the site and whether the materials were licensed under the NRC, an Agreement State, a Department of the Army Radiation Authorization or Department of the Army radiation permits.

If the Radiological Survey determines that radioactive contamination is present at a site above the applicable dose-based standard, decontamination is required. For large decontamination efforts, a Decommissioning Plan must be prepared. The guidance for preparing a Decommissioning Plan differs depending on the types of licenses. The requirements can be found in 10 CFR Parts 30, 40, or 70.

If the survey concludes that there is no contamination above the applicable dose-based standard, the radiological survey report will be instrumental in terminating a license and/or releasing the area for property transfer.

Active/operating Army installations with identified areas where radioactive materials may have been used should review the *Multi-agency Radiation Survey and Site Investigation Manual* (MARSSIM) for guidance to address the site and proceed with the Radiological Survey, decommissioning, termination of licenses and/or releasing the area for property transfer.

See the Multi-agency Radiation Survey and Site Investigation Manual on the Internet at <http://www.epa.gov/radiation/marssim>. Other radiological survey references are presented in Attachment F of this management plan.

ATTACHMENT F

**AVAILABLE RELATED ENVIRONMENTAL
GUIDANCE**

ATTACHMENT F

AVAILABLE RELATED ENVIRONMENTAL GUIDANCE

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