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MINUTES AND AGENDA FROM RESTORATION ADVISORY BOARD COMMUNITY  
RELATIONS SUBCOMMITTEE MEETING DATED 11 MARCH 1997 CNC CHARLESTON SC  
3/11/1997  
CNC CHARLESTON

# Agenda

# Restoration Advisory Board Community Relations Subcommittee

03/11/97  
3:30 PM to 4:30 PM  
Building NH-51  
CSO Conference Room

**Attendees:**

Louis Mintz, Arthur Pinckney, Wannetta Mallette Pratt, Fouche'na Sheppard,  
Ralph Laney [Guest], Daryle Fontenot

## Agenda topics

Meeting Overview

~~OSHA/RCRA Q & A Fact Sheet~~

~~Investigation Results Fact Sheet for Zones aA, B, C & I~~

✓ Property Transfer Fact Sheet; New RAB; RAB Goals  
New RAB and RAB Goals Fact Sheet

✓ Earth Day Tour of the Base

✓ Other Agenda Items

- Web Page check

**Resource persons:**

Diane Cutler



# Expediting BRAC Cleanups Using CERCLA Removal Authority

Spring 1997

Office of the Deputy  
Under Secretary of  
Defense (Environmental  
Security)

BRAC Environmental  
Program Fact Sheet

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CERCLA and the NCP define a **removal action** as any one or all of the following:

- 1) the cleanup or removal of released hazardous substances,
- 2) actions to mitigate a threat or release of hazardous substances,
- 3) actions to monitor and evaluate release conditions,
- 4) disposal of removed material, and
- 5) actions to mitigate or prevent damage to public health, welfare, or the environment.

## BACKGROUND

 is a part of the Department of Defense (DoD) initiative on fast-track cleanup at closing installations. DoD strives for expedited cleanup and reuse of property. This initiative is part of DoD's implementation of the President's program to revitalize communities in which DoD installations are closing. One method by which cleanups at closing installations can be expedited is through the use of the removal authority under section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The purpose of this fact sheet is to provide information on the CERCLA removal authority and identify opportunities for Base Realignment and Closure (BRAC) cleanup teams (BCT) to use this authority. This fact sheet is not intended to serve as policy. This fact sheet also does not discuss, and is not intended to affect, cleanups that may be required by a regulatory agency under other environmental authorities, such as the Resource Conservation and Recovery Act (RCRA).

### What is CERCLA removal authority?

A removal action typically addresses situations that present an immediate or short-term threat to human health or to the environment, whereas a remedial action typically addresses situations that present a more long-term threat to human health or the environment. The CERCLA removal authority provides a streamlined method for quickly evaluating and responding to releases of

hazardous substances. A CERCLA removal action may cover a broad range of response actions, including containment, treatment, and disposal. Responses taken using the CERCLA removal authority may be either interim or final.

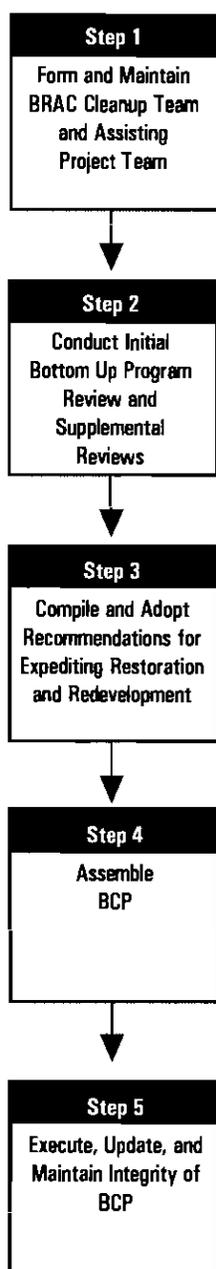
### How do removal actions differ from early remedial actions?

Early actions can be taken to achieve risk reduction at sites using either the CERCLA section 104 removal or remedial authority. While this fact sheet addresses removal actions, please note that sometimes it may be more appropriate to undertake early actions using remedial authority. It is also important to remember that these early remedial actions will require a record of decision (ROD).

### Can DoD take removal actions?

DoD has the authority to identify removal situations and conduct removal actions. The authority and responsibility have been conferred by Executive Order 12580 and by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR part 300, sections 300.405–300.415). The authority and responsibility also is outlined in many federal facility agreements. The NCP defines DoD as the lead agency for implementing the CERCLA program at DoD sites. The BRAC environmental coordinator (BEC) is responsible for working with the EPA and state BCT members at closing installations to identify opportunities for conducting

## Five-Step BCP Process



removal actions and to ensure that all the necessary documentation for initiating, completing, and closing out a removal action is prepared and submitted to the appropriate regulatory agency officials. The BEC should work with the other BCT members to decide whether to implement a removal action and to ensure that all the requirements are met, including the community relations activities.

### When can a removal action be taken?

A removal action may be initiated at any point in the investigation or cleanup phase at any or all of the sites at a BRAC installation if data or information shows that this type of response action is appropriate or necessary. This includes the preliminary assessment and site inspection (PA/SI) process and remedial investigation and feasibility study (RI/FS) process. If the site conditions at an installation pose a threat to human health or the environment, a removal action may be appropriate and helpful in expediting cleanup. At BRAC installations, the decision to implement a removal action should be part of the process of implementing and updating the BRAC cleanup plan (BCP).

### How does a removal action fit into the BCP process?

The BCT should conduct an initial bottom-up review of all past and ongoing environmental activities, concurrent with conduct of the environmental baseline survey (EBS) that characterizes the existing environmental condition of the property. If possible, members of both the project team and the BCT should identify opportunities for removal actions during the second and third steps of the BCP process. The bottom-up review and the EBS should generate enough information for the BCT to

determine whether a removal action is appropriate. Even though ideally a removal action should be initiated as a result of the bottom-up review or the EBS, there may be new circumstances or additional data or information that is obtained after the initial BCP is completed that may support a decision to implement a removal action. This information can be obtained through the fifth step of updating the BCP.

## THE REMOVAL RESPONSE PROCESS

A removal action consists of five steps: first, an evaluation of the site conditions where a removal action will be taken; second, an assessment of the applicability of specific situations or "removal factors" that affect the level of risk at a removal site; third, determining the urgency of the situation; fourth, planning or scoping the removal action and documenting the decision of which action will be taken; and finally, taking the removal action and documenting the completion of the action. Details for each step follow:

### ✓ Step 1: Removal Site Evaluation

Existing data from a variety of sources including initial assessment studies, bottom-up program reviews, EBSs, PAs, SIs, and RIs should be used to assess the nature and extent of contamination and the potential for the contamination to migrate and adversely affect human health or the environment. Additional data should be collected by the BCT and assisting project team only if existing data is not available.

### ✓ Step 2: Assessing NCP Removal Factors

The following factors are to be considered in determining whether a removal action is appropriate:

- Actual or potential exposure to humans, animals, or the food chain
- Actual or potential contamination of drinking water supplies or sensitive ecosystems
- Drums, barrels, tanks, or other bulk containers that may pose a threat of release
- High contaminant concentration levels in soils largely at or near the surface that may migrate
- Weather conditions that may cause migration or releases
- Threat of fire or explosion
- Availability of other federal or state response mechanisms to respond to the release
- Other factors or situations that may pose threats to public health or welfare or to the environment

<b>COMMUNITY RELATIONS REQUIREMENTS FOR REMOVAL ACTIONS</b>				
Requirements	Emergency Action	Time-Critical Action		Non-Time-Critical Action
	(cease within 30 days of initiation)	(completed in 120 days or less)	(completed in more than 120 days)	(completed after a planning period of 6 months or more)
Designate spokesperson	✓	✓	✓	✓
Conduct community interviews			✓	✓
Incorporate into existing Community Relations Plan (if available) or prepare formal Community Relations Plan			✓	✓
Publish notice of availability of administrative record file within 60 days of initiation of on-site removal activity and place administrative record file in a central location near the site	✓	✓	✓	
Provide public comment period of not less than 30 days, as appropriate		✓	✓	✓
Establish information repository and administrative record no later than when the EE/CA approval memorandum is signed				✓
Publish notice of availability and brief description of the EE/CA in a major local newspaper of general circulation and make EE/CA and administrative record available in the information repository				✓
Hold a public meeting during the public comment period				✓
Prepare a written response to significant public comments	✓	✓	✓	✓

describes two different types of removal situations: (1) those situations that require action within 6 months of determining that a removal response is appropriate; and (2) those situations for which a planning period of 6 months or more is appropriate. Three different types of removal actions are available to the BEC to address those situations:

- emergency actions for situations that need immediate attention (within hours);
- time-critical actions for situations that need attention soon (within 6 months); and
- non-time-critical actions for situations that can be addressed later (after a 6-month or more planning period)

The BEC should work with the EPA and state BCT members on-site to determine whether a removal action is appropriate based on these factors. Once a determination is made that site conditions meet one or more of the NCP removal factors listed above, the BEC, in consultation with the other BCT members, must determine what type of removal action to take.

✓ **Step 3: Determining Urgency**

The primary factor used to determine the type of removal action to take is the urgency of the situation. The NCP

A secondary factor in determining the type of removal action to take is the nature of the problem and the available solutions. A single site can be addressed by both time-critical and non-time-critical actions. For example, in response to a chemical spill, a time-critical action can be used to mitigate the immediate threats by using berms or other devices for containment, and a non-time-critical action can be used to take the final action by using treatment and disposal of the chemicals that were contained.

Non-time-critical removal actions also are being conducted to address situations that typically were addressed with a remedial action in the past. BECs and BCTs should consider conducting non-time-critical removal actions that will achieve results

comparable to a remedial action, but which may be completed in less time than the typical remedial action.

#### ✓ **Step 4: Scoping the Action and Documenting the Decision**

The time-critical planning process will require that the BEC document:

- the objective and scope of the action;
- the types of responses that will meet the objective; and
- that federal and state applicable or relevant and appropriate requirements (ARAR) were evaluated and which ARARs were considered practicable to meet.

In accordance with CERCLA, the BEC must give the involved federal, state,

## Common MISCONCEPTIONS

### **MISCONCEPTION #1 - "Removal actions are only temporary solutions."**

Removal actions are sometimes temporary solutions, but the NCP allows much more. According to Section 300.415(b)(1) of the NCP, the lead agency may take any appropriate removal action to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or the threat of release. Therefore, removal actions are not just temporary stabilization measures but may be final measures that eliminate the threats.

### **MISCONCEPTION #2 - "A problem that has been around for 20 or 30 years cannot be considered to be time-critical."**

The urgency of a situation that meets an NCP removal factor is evaluated when a problem is recognized, not necessarily when it occurs. Releases or threats of releases frequently occur well before they are recognized as problems.

### **MISCONCEPTION #3 - "DoD removal actions must be completed in 12 months and must not cost more than \$2 million."**

The statutory limits of 12 months and \$2 million placed on removal actions apply only to EPA removal actions funded using the Superfund Trust Fund. The Superfund law prohibits DoD from using Superfund Trust Fund monies for taking response actions. Therefore, DoD removal actions are not subject to these statutory time and dollar limits.

### **MISCONCEPTION #4 - "If action is not taken on a time-critical situation in 6 months, the situation is now considered non-time-critical and an EE/CA must be conducted."**

Funding and personnel resource shortages may delay initiation of time-critical removal actions beyond the 6 month time frame described in the NCP. The delay, however, does not necessarily change the situation itself from time-critical to non-time-critical. The lead agency should make every effort to initiate activities as soon as possible, and take appropriate measures if they are not able to initiate activities within 6 months. Appropriate measures may include emergency actions to mitigate immediate threats and monitoring of the situation to determine if it is worsening.

and local agencies the opportunity to review and comment on proposed removal actions. This review and comment can be accomplished, in part, by providing the EPA and state members of the BCT the draft action memorandum. A public comment period is held only if the lead agency determines it is appropriate.

The non-time-critical planning process will require that the BEC prepare an Engineering Evaluation/Cost Analysis (EE/CA) that documents:

- the contamination problems at the site and the threat to human health and the environment that the contamination poses;
- the objectives to be accomplished and the scope (interim or final) of the action;
- ARARs and other to be considered (TBC) requirements with which the action must comply; and
- alternatives evaluated for addressing the contamination problems and a recommended removal action alternative

Much of the information for the EE/CA can be obtained from the EBS or other similar studies that have characterized the contamination problem and provided alternatives for remediation. The BEC must issue the EE/CA for a 30-day public comment period and hold a public meeting. After considering public comments, the removal action is selected by DoD.

An Action Memorandum also can be prepared to formally document the selection of time-critical and non-time-critical removal actions.

#### ✓ **Step 5: Taking the Action and Documenting Completion**

The next step is for the BEC to conduct the removal action. DoD contracts usually require the preparation

of a removal action work plan by the contractor that will be conducting the action. The contractor also should be required to prepare a completion report that documents how the action was conducted and that verifies that the removal action objectives were met.

## **KEYS TO SUCCESSFUL USE OF REMOVAL ACTIONS**

There are several factors that can lead to the successful use of removal actions at BRAC installations. These factors should be considered by the BEC and other installation personnel involved in the cleanup of a BRAC installation. The factors include recognizing the Superfund removal authority as a valid and available response tool, coordinating with EPA and state BCT members when planning removal actions and maintaining a partnership throughout the process, and using the flexibility of the NCP to make the most of removal actions.

### **📌 *Recognize the CERCLA removal authority as a valid and available response tool***

Become familiar with the removal response process and reevaluate site conditions to determine if there are situations that can be addressed quickly and effectively with removal actions. Many situations addressed in the past by EPA using remedial actions now are being addressed by EPA using non-time-critical removal actions. DoD also can accelerate cleanups using the same approach. BECs and other BCT and project team members should educate themselves on the use of removal authority by reading regulations and guidance and taking training courses.

**ARARs are cleanup standards and other requirements that must be met, to the extent practicable, before the completion of a removal action. An "applicable" requirement is one that addresses a specific substance or situation. A "relevant and appropriate" requirement is one that addresses a substance or situation that is similar to a CERCLA situation and is well suited to the existing situation.**

Sampling and analysis plans consist of two parts:

1) the **field sampling plan** which describes the number, type, and location of samples and type of analyses, and 2) the **quality assurance project plan** which describes policy, organizational, and functional activities and data quality objectives and measures necessary to achieve adequate data for use in planning and documenting the removal action.

**Coordinate with EPA and state BCT members when planning removal actions**

DoD has the authority to implement removal actions without the approval of EPA or the state (only the opportunity to review and comment on plans for response action is required; however, per the NCP EPA is required to review and approve the sampling and analysis plan that may be necessary for non-time-critical removal actions). Regulatory representatives may fear that DoD is attempting to avoid their input by using the CERCLA removal authority. By working closely with the EPA and state BCT members throughout the removal response process, such fears should be allayed. At BRAC installations, the BEC should maintain a strong partnership with the

EPA and state BCT members throughout the cleanup and reuse process.

**Use the flexibility of the NCP to make the most of removal actions**

The NCP provides a great deal of flexibility in determining the scope of removal actions. BECs and the EPA and state BCT members working towards cleanup at closing installations should not assume that removal actions are always temporary solutions. Appropriate consideration should be given to solving the problem completely with a removal action.

**USEFUL RESOURCES FOR UNDERSTANDING REMOVAL ACTIONS**

1. NCP 40 CFR Part 300, Sections 300.405 Discovery and notification, 300.410 Removal site evaluation, 300.415 Removal actions, and 300.820 Administrative record file for a removal action; and relevant sections of the preamble of 55 FR, March 8, 1990.
2. "Superfund Removal Procedures—Action Memorandum Guidance," December 1990, EPA, OSWER Publication 9360.3-01, EPA/540/P-90/004, PB90-274473.
3. "Superfund Removal Procedures—Guidance on the Consideration of ARARs During Removal Actions," August 1991, EPA, OSWER Publication 9360.3-02, PB92-963401/CCE.
4. "Superfund Removal Procedures—Public Participation Guidance for On-Scene Coordinators: Community Relations and the Administrative Record," June 1992, OSWER Publication 9360.3-05, PB92-963416.
5. "Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA," August 1993, OSWER Publication 9360.0-32, EPA540-R-93-057, PB93-963402.
6. "Guidance on Accelerating CERCLA Environmental Restoration at Federal Facilities," August 22, 1994, EPA/DoD/DOE.

**NOTICE**

We welcome and invite your comments on this fact sheet, as we seek ways to improve the information provided. Please send comments to the following address:

Office of the Assistant Deputy Under Secretary of Defense  
(Environmental Cleanup)  
Attn: Fast-Track Cleanup  
3400 Defense Pentagon  
Washington, DC 20301-3400

This and other documents on the BRAC Environmental Program are available at:  
<http://www.dtic.mil/envirodod/envbrac.html>



Office of the Deputy Under Secretary of Defense (Environmental Security)

# Innovative Solutions Save Time and Money

The Department of Defense (DoD) and the U.S. Environmental Protection Agency (EPA) are committed to promoting and developing innovative solutions for environmental protection. Innovative processes and technologies make cleanups faster, more effective, and less costly. At Base Realignment and Closure (BRAC) installations, their application leads to enhanced environmental restoration, economic revitalization, and satisfied stakeholders.

## *Innovative Processes Lead to Progress*

DoD and EPA actively encourage the use of innovative processes to improve environmental restoration. They work with state and local regulatory agencies, restoration advisory boards, and other interested stakeholders to promote streamlined decision making, creative management approaches, and strategies for accelerating cleanup efforts.

For example, presumptive remedies can accelerate the cleanup of similar types of sites. These remedies are preferred technologies for common categories of sites that are based on historical patterns of remedy selection and demonstrated success of these remedies. Their use enables site managers to focus the number of technologies considered, focus data collection efforts, and streamline site assessment. As a result, cleanups proceed more rapidly and unnecessary costs are avoided.

Variable oversight is another innovative practice that streamlines the cleanup process. Variable oversight is a common-sense approach to cleanup that combines tailoring, or varying, the level of regulatory oversight at an installation to correspond with the complexity of the facility's environmental problems. While there are core requirements that must be met at all sites, variable oversight involves applying streamlining concepts and tools to reduce time frames and avoid costs.



## *Innovative Technologies Make A Difference*

Federal facilities offer unique opportunities for collaborating efforts on technology innovation. DoD and EPA are committed to facilitating the use of federal facilities as demonstration and testing sites for the application of site assessment and remediation technologies. We encourage reasonable risk-taking in selecting technologies for contaminated soils and groundwater.

Innovative remediation technologies often provide superior alternatives to traditional approaches such as excavation and landfilling for soils and pump-and-treat for groundwater. Examples of non-traditional approaches include phytoremediation, bioremediation, monitored natural attenuation, and air sparging. On-site sampling and analytical approaches offer considerable time and cost savings as compared with conventional laboratory methods. Examples of innovative site assessment methods include on-site colorimetric, immunoassay, and x-ray fluorescence field methods.



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### Innovation Success Stories

#### Umatilla Army Depot, Hermiston, Oregon

EPA Region 10 advocated the use of innovative treatment and on-site analytical technologies for the cleanup of explosives and metals in soil and groundwater. Use of bioremediation and solidification/stabilization treatment and on-site colorimetric, immunoassay, and x-ray fluorescence field methods has avoided more than \$14 million in cleanup costs. The on-site colorimetric and immunoassay methods have provided real-time data for monitoring soil and groundwater treatment processes, reducing sample costs from \$250 per sample to \$60 per sample, and reducing the time needed to conduct analysis from three weeks to one day. Technology evaluation and implementation was made possible by close coordination among Umatilla Army Depot, EPA Region 10, the Oregon Department of Environmental Quality, the U.S. Army Environmental Center, the U.S. Army Corps of Engineers-Seattle District, and the Army Cold Regions Research and Engineering Laboratory.

#### Fort Ord, Monterey, California

EPA Region 9, community groups, private industry, the Air Force, and the state are collaborating on innovative cleanup and reuse solutions, such as creating the Environmental Process Improvement Center to accelerate site cleanup, apply innovative technologies, and share lessons learned. EPA and the Air Force also provided opportunities to test and evaluate innovative cleanup technologies, including use of bioventing and soil vapor extraction, in the installation's public-private sector partnership program.

**Williams Air Force Base, Phoenix, Arizona** Just three years after Williams Air Force Base was closed, portions of the base have been transferred, creating jobs for local community members and saving taxpayer dollars. The force behind this rapid transfer has been an effective partnership among the Air Force, staff of local and state agencies, EPA Region 9, the Native American community, and local groups. Soil and groundwater contamination at the site demanded a creative cleanup approach.

The cleanup team has evaluated several nontraditional approaches, such as soil vapor extraction and natural attenuation, which, if selected, are expected to avoid \$4 to \$5 million in costs and increase the rate of cleanup from 5 gallons per day to 500 gallons per day, shaving years off the cleanup time.

**Fort Ord, Monterey, California** The Army, EPA Region 9, and the State of California Department of Toxic Substances Control worked closely together to streamline the decision-making process and identify and adopt creative approaches to cleanup problems. EPA Region 9 proposed one such solution: to excavate material from one area of the site to be used in the construction of the cleanup alternative at another portion of the site. That transfer provided double savings totaling \$11 million. In addition, EPA Region 9 recommended that the Army develop a "plug-in record of decision," a pre-approved document that establishes criteria for individual sites, so that all sites that require similar remediation activities can be consolidated. This action bypassed the decision-making process and expedited the cleanup process. Using these streamlining approaches, the Army cut approximately one and one-half years from the original cleanup schedule for the entire base.

To learn more about innovation at Federal facilities, visit the following Internet home pages:



Department of Defense  
Office of the Assistant Deputy Under Secretary  
of Defense (Environmental Cleanup)  
DoD's BRAC Environmental Program:  
<http://www.dtic.mil/environdod/envbrac.html>

U.S. Environmental Protection Agency  
Federal Facilities Restoration and Reuse Office:  
<http://www.epa.gov/swerrfr>

U.S. Environmental Protection Agency  
Technology Innovation Office:  
<http://www.clu-in.com>



OFFICE OF THE  
DEPUTY UNDER  
SECRETARY OF  
DEFENSE  
(ENVIRONMENTAL  
SECURITY)

# Overview of the Fast-Track Cleanup Program

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## BACKGROUND

In 1993 President Clinton introduced the five-part Community Reinvestment Program to speed the economic recovery of communities affected by Base Realignment and Closure (BRAC) decisions. The Community Reinvestment Program incorporates the elements of economic development, transition assistance, and environmental restoration to allow for the timely reuse of a closing base's assets. The five major elements of the program are:

- Job centered property disposal that puts local economic redevelopment first
- Fast-track cleanup that removes needless delays, while protecting human health and the environment
- Transition coordinators at every base slated for closure
- Easy access to transition and redevelopment help for workers and communities
- Larger economic development planning grants to base closure communities

The purpose of this fact sheet is to present an overview of the second element: fast-track cleanup. The ultimate goal of the Fast-Track Cleanup Program is to expeditiously make property available for transfer to the community, with the focus of the program on integrating the community's reuse needs into the cleanup to allow for safe reuse to occur.

## PRINCIPLES OF THE FAST-TRACK CLEANUP PROGRAM

The Fast-Track Cleanup Program was developed with three principles in mind:

- Protecting human health and the environment
- Making property available for reuse and transfer as soon as possible
- Providing effective community involvement

The Fast-Track Cleanup Program is not a substitute for, nor does the program supplant, environmental cleanup frameworks established by federal and state environmental laws and regulations. Rather, the focus is on expediting cleanup to make property available for reuse and transfer to affected communities, while still protecting human health and the environment. To that end, the Fast-Track Cleanup Program, in addition to following those established frameworks, relies on a variety of other tools—guides, fact sheets, brochures, handbooks, and workshops—to share lessons learned and provide ways to expedite cleanup and make property available for reuse and transfer. The major elements for implementing the Fast-Track Cleanup Program are described below.

## ESTABLISH CLEANUP TEAMS

The BRAC Cleanup Team (BCT) is comprised of representatives from DoD, the state regulatory agency, and the U.S. Environmental Protection Agency. The composition of the BCT may vary depending on the requirements at the installation. The BCT has the responsibility to emphasize cleanup actions that facilitate reuse and redevelopment of the property. The DoD representative to the BCT is the BRAC Environmental Coordinator (BEC). The BCT is the primary forum in which issues affecting the execution of cleanup to facilitate reuse will be addressed. The BCT is supported by a project team that can include other installation and government agency staff, and contractors. The BCT coordinates closely with the Base Transition Coordinator (BTC) and the Local Redevelopment Authority (LRA) in developing and implementing a cleanup program which facilitates redevelopment.

The members of the BCT should work together to seek innovative approaches to expedite the cleanup at the installation by such means as:

- Using innovative cleanup methods
- Using interim cleanup actions
- Identifying clean parcels and making them immediately available for transfer

## CURRENT AND FUTURE INITIATIVES

- *Policy to address cleanup responsibility after transfer of BRAC property*
- *Guidelines on use of early transfer authority to transfer BRAC property before completion of all response actions*
- *Development of tools on using institutional controls in environmental restoration activities*
- *Development of policy on completion of fast-track cleanup*



**Conduct "Bottom-Up" Review of Environmental Programs**

The BCT is responsible for conducting a "bottom-up" review of existing environmental programs after the installation has been placed on a BRAC list. The purpose of the review is to identify opportunities for acceleration of cleanup and property transfer. This has been accomplished for all four BRAC rounds.

**ADDITIONAL INFORMATION**

For further information, please contact:

OADUSD (Environmental Cleanup)  
Attn: Fast-Track Cleanup  
3400 Defense Pentagon  
Washington, DC  
20301-3400

or visit DoD's BRAC Program home page:  
<http://www.dtic.mil/envirodod/envbrac.html>

*Keys to the Fast-Track Cleanup Program are teamwork and partnerships. Early, consistent, and frequent dialogue and coordination is essential to the success of the program. Outlined below are roles and responsibilities of some key players in the program.*

**Prepare, Implement, and Execute a BRAC Cleanup Plan (BCP)**

The results of the bottom-up review are documented in a BRAC Cleanup Plan (BCP), which sets priorities for the requirements, schedules, and costs of environmental programs. The BCP is a key management tool for planning and carrying out the environmental restoration, reuse, and transfer of property, and is intended to be the following:

- A concise living document owned by the BCT and updated as necessary
- A document that contains elements to immediately support the integration of environmental restoration and reuse activities and requirements

**MAKE PROPERTY AVAILABLE FOR REUSE AND TRANSFER**

**Accelerate National Environmental Policy Act (NEPA) Requirements**

DoD guidance, and the base closure law, require the completion of National Environmental Policy Act (NEPA) analysis and documentation within one year after the reuse plan is completed by the LRA. The redevelopment plan forms the basis for the proposed action and alternative analysis for the NEPA process.

**Make Clean Parcels Available**

DoD has improved the process of identifying uncontaminated or clean parcels that are available for transfer by providing for the earlier involvement of the appropriate regulatory agencies and earlier initiation of environmental baseline surveys to identify clean parcels. The review process to identify clean parcels has been completed for all four BRAC rounds.

**Determine Suitability of Property for Reuse**

DoD has established two processes to identify and document properties environmentally suitable for transfer or lease.

A Finding of Suitability to Transfer (FOST) process has been established to identify and prepare property for transfer by deed. Such transfers are usually for property where environmental response is not needed or has been taken. However, under certain conditions, new authority now permits earlier transfer. The FOST process also looks at the compatibility of an anticipated reuse with completed restoration activities and identifies restrictions necessary to protect human health and the environment.

A Finding of Suitability to Lease (FOSL) process has also been established for leasing of property that cannot be transferred by deed because environmental restoration activities are still ongoing. The FOSL process also looks at the compatibility of a proposed reuse with ongoing restoration activities and identifies restrictions necessary to protect human health and the environment and prevent interference with the cleanup.

**INDEMNIFICATION**

DoD will indemnify lessees or owners of transferred property for claims arising from contamination resulting from past DoD operations. This allows DoD to more readily lease or transfer real property and promote reuse.

**BRAC ENVIRONMENTAL COORDINATOR (BEC)**

The BEC is appointed by the DoD Component responsible for the installation and is given the authority, responsibility and accountability for environmental programs related to the transfer of installations' real property. The responsibilities of the BEC include: forming the BCT, participating as member of the RAB, implementing all environmental cleanup programs related to closure in accordance with the BRAC Cleanup Plan, and acting as a liaison with appropriate installation and headquarters commanders on closure-related environmental compliance matters.

**RESTORATION ADVISORY BOARD (RAB)**

Restoration Advisory Boards (RAB) have been established at installations to provide a forum for discussion and exchange of cleanup information between government agencies and the public. The RAB is comprised of representatives from the DoD Component, EPA, state, (generally the members of the BCT) and the local community. The RAB is jointly chaired by an installation representative and a member of the local community. Through the RAB, stakeholders may review progress and provide input to the decision making process. A variety of vehicles are used by the RAB to disseminate information: public meetings, hulletins and central repositories.

**BASE TRANSITION COORDINATOR (BTC)**

The BTC is appointed by DoD and works as an ombudsman for the community. The BTC serves as the local liaison between the BCT and the LRA to help facilitate redevelopment of the property and the creation of new jobs for the community. The BTC has the responsibility to ensure that property disposal and reuse issues are closely coordinated with restoration initiatives, thereby enabling property to be transferred as efficiently and effectively as possible.

**LOCAL REDEVELOPMENT AUTHORITY (LRA)**

The LRA is usually created by elected local or state officials and recognized by DoD. The LRA is responsible for representing the communities' interests and developing or implementing the reuse plan of the property. The LRA has the sole responsibility for preparing a redevelopment plan for the property that will be made available to the community. The LRA serves as the community's point of contact for all matters related to reuse, acting as an interface between the community and the installation (through the BTC).



## NAVAL BASE, CHARLESTON

### Environmental Cleanup Program

*This fact sheet is one of a series to inform interested citizens about the environmental investigations and cleanup actions at Naval Base, Charleston. Other fact sheets will be written at appropriate points in the program and in response to public interest. Distribution is coordinated through the Public Affairs Office at Naval Facilities Engineering Command, Southern Division, (803) 820-5771.*

### ZONES A, B, C, & I - ENVIRONMENTAL INVESTIGATION RESULTS

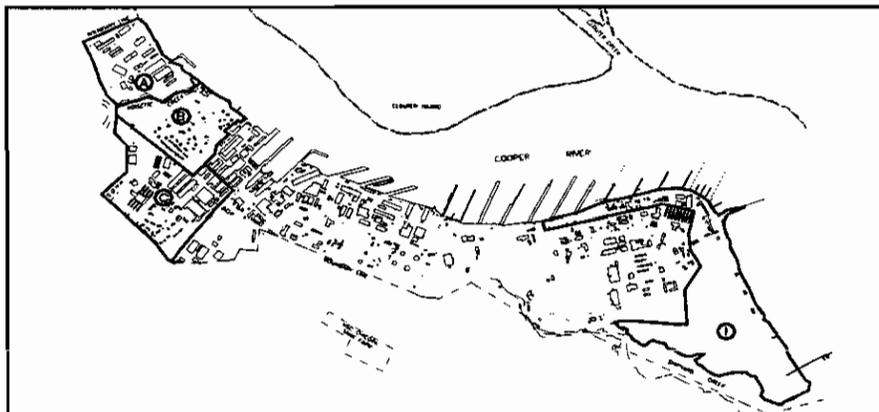
#### SUMMARY

Results of the environmental investigation for Zones A, B, C, and I have been compiled, interpreted, and presented to state and federal regulators who will use the results as a basis for making decisions about continued cleanup efforts. This fact sheet summarizes the results of the RCRA Facility Investigation (RFI) recently completed at these Zones.

#### BACKGROUND

Naval Base Charleston was geographically divided into 12 zones (A - L) to aid in prioritizing the environmental investigation of the base. Zone H was investigated first due to its potential for reuse, followed by C, I, A and B. The remaining zones are in varying stages of the investigative process.

The boundaries of Zones A, B, C and I are highlighted in the accompanying map. Zone A includes the warehouses and scrap metal yard. Zone B is the golf course and residential areas. Zone C consists of office space and warehouses. Zone I is the southern end of the base excluding the waterfront.



Naval Base Charleston

#### REVIEW OF THE INVESTIGATION AND CLEANUP PROCESS

Beginning in 1993, water, soil, and sediment samples were collected as set forth in the regulator-approved Work Plan. The samples were then analyzed by a laboratory, and the results used to evaluate risk to human health and the environment. The Zone-specific RCRA Facility Investigation (RFI) Reports include all the information collected during this process.

Using information from the risk evaluation, the Navy and regulators will work together to make decisions about the site, such as:

- ① Should cleanup be undertaken?
- ② What should cleanup levels be?
- ③ What cleanup methods should, or can be used?

Answers to these questions are essential for planning the next step in the process, which is cleanup.

## RESULTS

A summary of Zones A, B, C, and I risk assessment results is provided on the accompanying table. The following is a brief description of each column header which should help explain the results.

### SITE

Each site, called either a Solid Waste Management Unit (SWMU) or Area of Concern (AOC) has its own unique identification number.

### MATRIX

The "matrix" is the type of material that was sampled, such as water or soil. GW = groundwater. In some cases, quarterly groundwater monitoring was conducted and is specified by quarter (e.g., 1st Qtr. GW).

### INCREMENTAL LIFETIME EXCESS CANCER RISK (ILCR)

These columns provide risk information on the probability of getting cancer from exposure to the contaminants at that site.

- 1 in 10,000 risk =  $10^{-4}$
- 1 in a million risk (1,000,000) =  $10^{-6}$

- Cancer risk (or ILCR) greater than one in 10,000 ( $>10^{-4}$ ) generally requires cleanup action.
- Cancer risk less than one in a million ( $<10^{-6}$ ) generally does not require cleanup action.
- Cases falling in between these two values will require risk management decisions regarding cleanup, as explained on page 1.

The table shows the risk factors both for site workers, (W), and potential site residents, (R).

### HAZARD INDEX

The Hazard Index is a value used to express toxicity risk (non-cancer causing risk).

- A Hazard Index less than one ( $<1$ ) indicates that no toxic effect is likely.
- A Hazard Index greater than one ( $>1$ ) indicates that a toxic effect is likely.

The table shows the risk factors for both site workers, (W), and potential site residents, (R).

### TOTAL PETROLEUM HYDROCARBONS (TPH)

Total Petroleum Hydrocarbons are elements of petroleum products. The State of South Carolina requires that if TPH values are above 100 parts per million in soil, cleanup is required. A "Yes" in this column indicates the site requires cleanup.

### PRIMARY CONTRIBUTORS TO RISK/HAZARD

This column lists the chemicals at each site that cause the most concern regarding risk and hazard. Complete results can be found in the RCRA Facility Investigation Report found at the Information Repository.

### SUMMARY OF RISK AND HAZARD PROJECTIONS

Site	Matrix	ILCR			Hazard Index		TPH	Primary Contributors to Risk/Hazard	Comments
		> 10 <sup>-4</sup>	10 <sup>-4</sup> /10 <sup>-6</sup>	< 10 <sup>-6</sup>	< 1	> 1			
<b>ZONE A</b>									
SWMU 1 & 2	Soil, GW	---	---	---	---	---	---	Risk Assessment has not been completed.	
SWMU 38	Soil	R,W				R,W	Yes	Aluminum, PCBs, Arsenic, DDT, DDE, DDD	
	1st Qtr. GW		R,W		W	R		DDT, DDD, Thallium	
	2nd Qtr. GW		R,W		R,W			DDT, DDD	
	3rd Qtr. GW		R,W		R,W			DDT, DDD	
SWMU 39	Soil, GW	---	---	---	---	---	Yes	Risk Assessment has not been completed.	
SWMU 42/AOC 505	Soil		R,W		W	R		PCBs, Arsenic, BaP, Beryllium	
	1st Qtr. GW		R,W			R,W		Chloromethane, 1,1-DCE, Manganese, 1,1,2,2-TCA, PCE	
	2nd. Qtr. GW		R	W	W	R		Aluminum, Chromium, Manganese, PCE, Vanadium	
	3rd. Qtr. GW		R	W	R,W			PCE	
SWMU 43	Soil			R,W	R,W			None	
AOC 506	Soil			R,W	R,W			None	
	GW			R,W	R,W			None	
<b>ZONE B</b>									
AOC 507	Soil		R	W	R,W			BaP	
<b>ZONE C</b>									
SWMU 44	Soil	R	W		W	R		Arsenic, BaP	
	GW	R,W				R,W		Aluminum, Arsenic, Manganese, Beryllium, 2,3,7,8-TCDD	
SWMU 47/AOC 516	Soil		R,W		W	R	Yes	Aluminum, Arsenic, Lead, Thallium, Beryllium, BaP	
	GW	R,W				R,W	Yes	Antimony, Arsenic, Lead, Manganese, 3,3-Dimethylbenzidine	
AOC 508 & 511	Soil		R,W		R,W		Yes	BaP, Chlordane, DDT, Dieldrin	
AOC 515 & 519	Soil			R,W	R		Yes	None	
AOC 523/SWMU 49	Soil			R,W	R,W			None	
	GW	R,W				R,W	Yes	Aluminum, Arsenic, Manganese	
AOC 510	Soil			R,W	R,W			None	
	GW			R,W	R,W			None	
AOC 512	Soil		R	W	R,W			Beryllium, BaP	
AOC 513	Soil			R,W	R,W			None	
AOC 517	Soil			R,W	R,W			None	
ADC 518	Soil		R	W	R,W			Chlordane	
AOC 520	Soil			R,W	R,W			None	
<b>ZONE I</b>									
AOC 671	Soil		R	W	R,W			BaP, N-Nitroso-di-n-propylamine	
	GW			R,W	R,W			None	
AOC 672 & 673	Soil		R,W		W	R		Arsenic	
AOC 675 & 676 & 677	Soil			R,W	R,W			None	
	GW			R,W	R,W			None	
AOC 678 & 679	Soil		R	W	R,W			Isodrin	
	GW	R	W		R,W			1,4-Dichlorobenzene, Aroclor-1260	
AOC 680	Wipe			R,W	R,W			None	
<p> <span style="display: inline-block; width: 30%;">BaP = Benzo(a)pyrene equivalents</span> <span style="display: inline-block; width: 30%;">PCBs = Polychlorinated Biphenyls</span> <span style="display: inline-block; width: 30%;">DDD = DichloroDiphenylDichloroethane</span> </p> <p> <span style="display: inline-block; width: 30%;">1,1-DCE = 1,1-Dichloroethene</span> <span style="display: inline-block; width: 30%;">1,1,2,2-TCA = 1,1,2,2-Tetrachloroethane</span> <span style="display: inline-block; width: 30%;">DDE = DichloroDiphenylDichloroethylene</span> </p> <p> <span style="display: inline-block; width: 30%;">PCE = Tetrachloroethene</span> <span style="display: inline-block; width: 30%;">TCDD = Tetrachloro dibenzo dioxin</span> <span style="display: inline-block; width: 30%;">DDT = DichloroDiphenylTrichloroethane</span> </p>									

Table continued on next page

Site	Matrix	ILCR			Hazard Index		TPH	Primary Contributors to Risk/Hazard - Comments
		> 10 <sup>-4</sup>	10 <sup>-4</sup> /10 <sup>-6</sup>	< 10 <sup>-6</sup>	< 1	> 1		
ZONE I - Continued								
AOC 681	Soil			R,W	R,W			None
AOC 685	Soil		R,W		R,W			BaP, Arsenic, Beryllium
AOC 687/SWMU 16	Soil			R,W	R,W			None
	GW	R,W				R,W		Arsenic, Methylene chloride
AOC 688	Soil			R,W	R,W			None
AOC 689 & 690	Soil		R	W	R,W			BaP
SWMU 12	Soil			R,W	R,W			None
	GW	R,W				R,W		2,3,7,8-TCDD, Arsenic, Cadmium, Manganese, Nickel
RTC	Soil			R,W	R,W			None
DMA	Soil			R,W	R,W			None
BaP = Benzo(a)pyrene equivalents		PCBs = Polychlorinated Biphenyls			DDD = DichloroDiphenylDichloroethane			
1,1-DCE = 1,1-Dichloroethene		1,1,2,2-TCA = 1,1,2,2-Tetrachloroethane			DDE = DichloroDiphenylDichloroethylene			
PCE = Tetrachloroethene		TCDD = Tetrachloro dibenzo dioxin			DDT = DichloroDiphenylTrichloroethane			

### FOR MORE INFORMATION

The RCRA Facility Investigation (RFI) Reports for Zones A, B, C & I are available for public access at the Information Repository maintained at the Dorchester Road Regional Branch of the Charleston County Library, (803) 552-6466.

For more information on the Naval Base Charleston environmental cleanup program, call or write: Mr. Jim Beltz - Public Affairs Office, Naval Facilities Engineering Command - Southern Division, P.O. Box 190010, North Charleston, SC 29419-9010, (803) 820-5771.

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