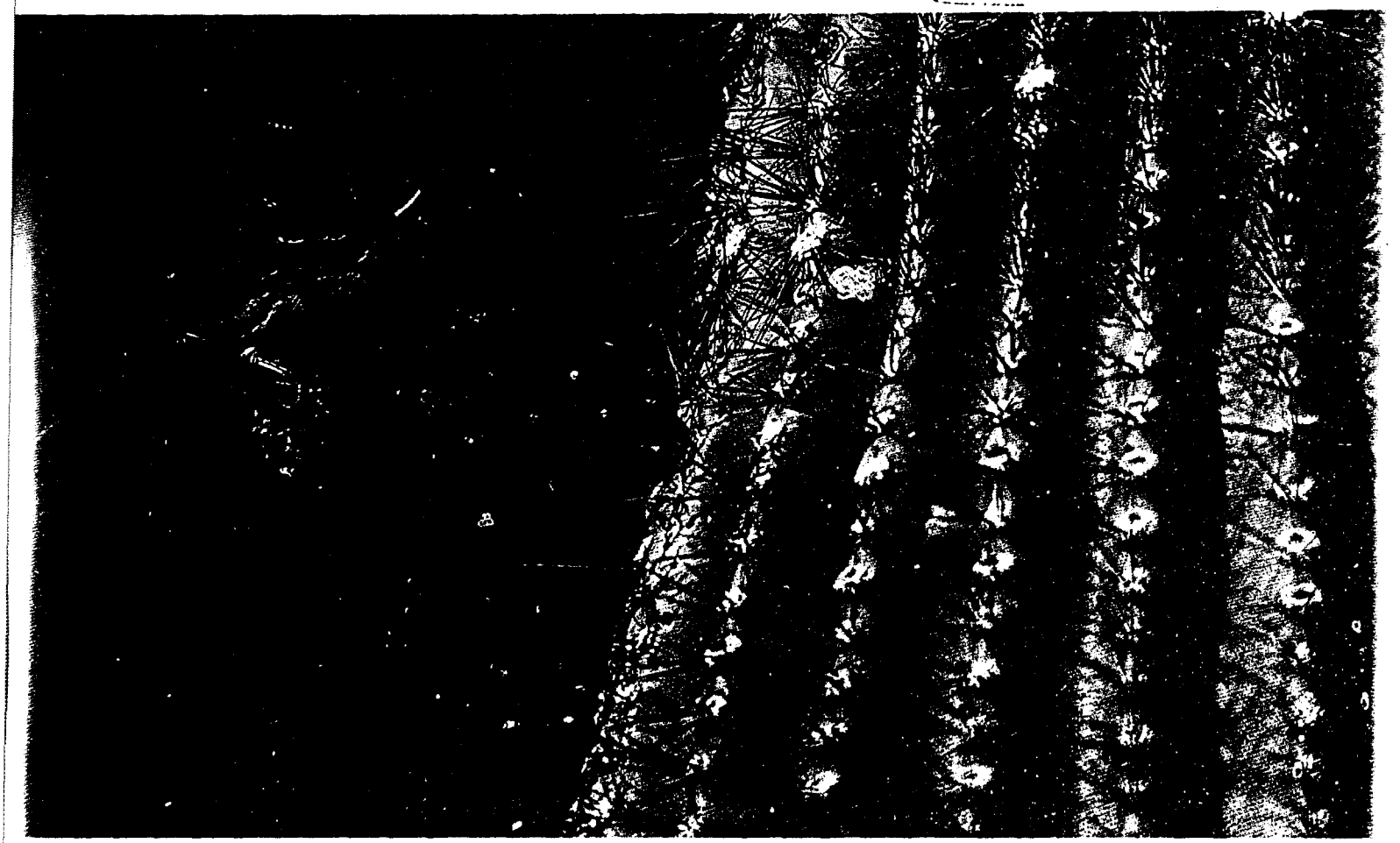
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THIS IS THE FIFTH ANNUAL REPORT TO THE CONGRESS ON THE DEFENSE ENVIRONMENTAL RESTORATION PROGRAM (DERP) IN RESPONSE TO THE SPECIFIC INFORMATION REQUESTED BY SECTION 211 OF THE SUPERFUND AMENDMENT AND REAUTHORIZATION ACT (SARA) OF 1986. THE REPORT EXPLAINS AND GIVES THE STATUS OF: (a) THE INSTALLATION RESTORATION PROGRAM, (b) OTHER HAZARDOUS WASTE OPERATIONS (c) RESEARCH, DEVELOPMENT, AND DEMONSTRATION AND (d.) TRAINING OF DOD PERSONNEL IN DERP ACTIVITIES. PROGRESS AT NPL SITES IS INCLUDED ALONG WITH AN EXPLANATION OF THE PROCESS. THE REPORT ALSO PROVIDES INFORMATION ON EACH INSTALLATION IN THE PROGRAM.

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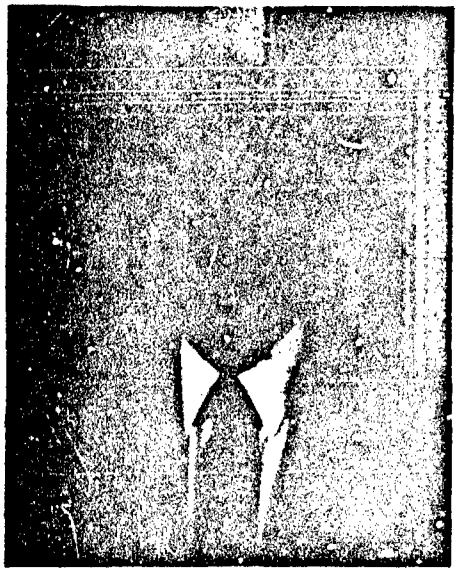
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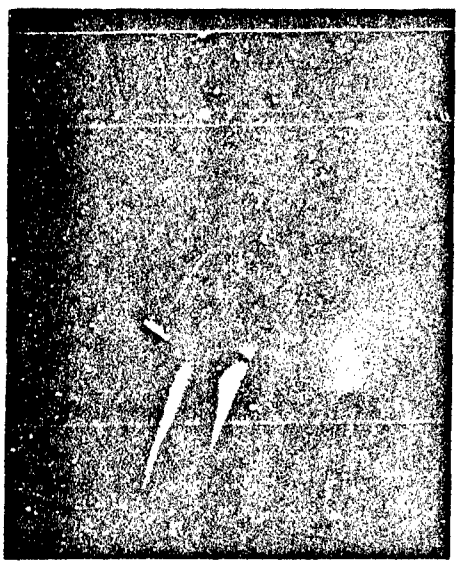
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"Global stewardship is our shared responsibility ana shared opportunity."

President George Bush



"Defense and the environment is not an either/or proposition. To choose between these is impossible in this real world of serious defense threats and genuine environmental concerns."

Secretary of Defense Richard Cheney

Foreword

I am pleased to provide the Congress with this report on the accomplishments of the Department of Defense Environmental Restoration Program (DERP) for Fiscal Year 1990. This last fiscal year has seen steady progress on all fronts as well as a continued increase in the level of activity under DERP. The primary focus of DERP continued to be the investigation and cleanup of contaminated DoD sites and formerly used properties. To this end, over 96 percent of the funds authorized by Congress for DERP in Fiscal Year 1990 were applied to Installation Restoration Program (IRP) efforts. Other significant DERP efforts included research and development, waste minimization, and management system improvements.

DoD's first priority in the IRP is to identify and clean up those sites that present the highest risk to public health and the environment. By the end of the fiscal year, 89 DoD installations and 12 formerly used properties were included on EPA's National Priorities List (NPL). Remedial Investigation/Feasibility Study work was ongoing at 81 of the DoD NPL installations and removal actions and/or Interim Remedial Actions had been conducted at 68 of the DoD NPL installations by the end of Fiscal Year 1990.

The total number of sites covered by the IRP increased by 20 percent in Fiscal Year 1990, to more than 17,000 sites at over 1,800 installations. These new sites are attributable to the inclusion of more than 200 smaller installations, such as U.S. Army Reserve Centers, in the IRP. By the end of the fiscal year, Preliminary Assessments had been completed at more than 16,000 of these sites and Site Inspections at more than 9,000 sites. Remedial Investigations/ Feasibility Studies were underway or completed at more than 5,400 sites and Remedial Actions had been initiated or completed at more than 1,400 sites.

By the end of Fiscal Year 1990, IRP work had been completed and no further action was required at more than 6,300 of the sites included in the IRP. These are sites where pollution hazards have been removed or studies have shown that no threat to human health or the environment exists and no remedial actions are necessary. Although studying sites that eventually are found to pose no risk is a time-consuming process requiring considerable resources, it is an essential activity representing significant progress in the IRP.

Another measure of IRP progress is in the area of interagency cooperation. During Fiscal Year 1990, Interagency Agreements were signed with EPA and the states for 31 DoD NPL installations, bringing the total number of installations with signed agreements for site investigation and cleanup to 51. In addition, Defense and State Memoranda of Agreement were

finalized between DoD and 12 states in Fiscal Year 1990. This progress illustrates the emphasis DoD has placed on developing workable solutions for site cleanups in cooperation with other cognizant agencies and the public.

We also have made progress in several related areas under DERP:

- *Our management capabilities have been strengthened through personnel training and improvements to site tracking and priority setting tools.*
- *Research and development activities have resulted in better, more cost-effective investigation and cleanup techniques.*
- *Waste minimization projects have been completed to reduce hazardous waste generation rates at our active installations.*

Through these and other activities, we have made significant headway in building an environmental ethic within DoD. The perseverance and commitment of our personnel, from the installation level up to this Headquarters, have enabled us to lead the way among Federal agencies in the investigation and cleanup of our facilities. This continuing dedication to duty, both in the defense of our national security and in the protection of our environment, will enable us to meet the challenges ahead.

As we make the transition from the investigation of our sites to the more costly cleanup phase, we must ensure that our efforts are properly focused to obtain the greatest benefit possible for our cleanup dollars. Many challenges await us in the upcoming years. Although we have come a long way in the seven years that DERP has existed, we still have far to go. The course we have charted for the future is sound and will ensure the achievement of our environmental restoration goals.

The programs and activities presented in this report provide Congress and the public a comprehensive assessment of our efforts to date and our plans for the future. We look forward to working together with all involved parties in continuing the critical work conducted thus far under DERP.



Thomas Baca
Deputy Assistant Secretary of Defense
(Environment)

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The Defense Environmental Restoration Program

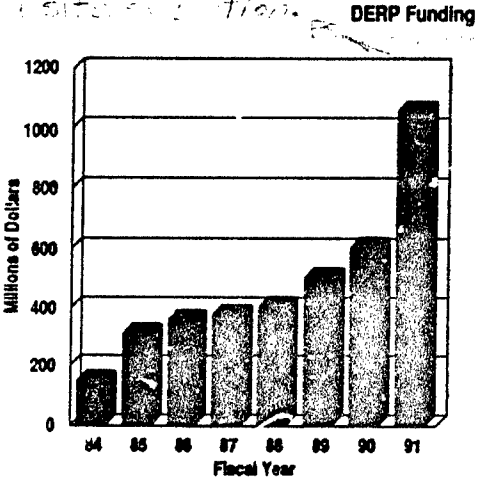
The Defense Environmental Restoration Program (DERP) was established in 1984 to promote and coordinate efforts for the evaluation and cleanup of contamination at Department of Defense (DoD) installations. The program currently consists of two major elements:

- The Installation Restoration Program (IRP), where potential contamination at DoD installations and formerly used properties is investigated and, as necessary, site cleanups are conducted.
- Other Hazardous Waste (OHW) Operations, through which research, development, and demonstration programs aimed at reducing DoD hazardous waste generation rates are conducted.

DERP is managed centrally by the Office of the Secretary of Defense. Policy direction and oversight of DERP is the responsibility of the Deputy Assistant Secretary of Defense (Environment). Each military service and the Defense Logistics Agency (DLA) are responsible for program implementation at their installations.

The Superfund Amendments and Reauthorization Act of 1986 (SARA) provide continuing authority for the Secretary of Defense to carry out this program in consultation with the U.S. Environmental Protection Agency (EPA). Executive Order 12580 on Superfund Implementation, signed by the President on January 23, 1987, assigned responsibility to the Secretary of Defense for carrying out the Department's Environmental Restoration Program within the overall framework of SARA and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). The Defense Appropriations Act provides funding for DERP.

Previously, DERP activities included Building Demolition and Debris Removal (BDDR) and hazardous waste disposal. No BDDR activities have been conducted under the program since FY 87 because higher priority IRP and OHW projects required the funds. Similarly, hazardous waste disposal costs are currently funded through each component's operation and maintenance budget and have not been a part of DERP since FY 86.



DERP funding has grown steadily, from $150 million in FY 84 to more than $1 billion in FY 91.

The Installation Restoration Program

The Installation Restoration Program (IRP) conforms to the requirements of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). EPA guidelines are applied in conducting investigation and remediation work in the program.

The initial stage, a **Preliminary Assessment** or **PA**, is an installation-wide study to determine if sites are present that may pose hazards to public health or the environment. Available information is collected on the source, nature, extent, and magnitude of actual and potential hazardous substance releases at sites on the installation. The next step, a **Site Inspection** or **SI**, consists of sampling and analysis to determine the existence of actual site contamination. The information gathered is used to evaluate the site and determine the response action needed. Uncontaminated sites do not proceed to later stages of the IRP process.

Contaminated sites are fully investigated in the **Remedial Investigation/Feasibility Study** or **RI/FS**. The RI may include a variety of site investigative, sampling, and analytical activities to determine the nature, extent, and significance of contamination. The focus of the evaluation is to determine the risk to the general population posed by the contamination. Concurrent with these investigations, the FS is conducted to evaluate remedial action alternatives for the site.

After agreement is reached with appropriate EPA and/or state regulatory authorities on how the site will be cleaned up, **Remedial Design/Remedial Action** or **RD/RA** work begins. During this phase, detailed design plans for the cleanup are prepared and implemented.

The notable exception to this sequence involves Removal Actions and Interim Remedial Actions (IRAs). These actions may be conducted at any time during the IRP to protect public health or control contaminant releases to the environment. Such measures may include providing alternate water supplies to local residents, removing concentrated sources of contaminants, or constructing structures to prevent the spread of contamination.

The National Priorities List (NPL)

EPA has established a Hazard Ranking System (HRS) for evaluating contaminated sites based on their potential hazard to public health and the environment. A Revised Hazard Ranking System (HRS2) for evaluation of future sites has been proposed by EPA. The application of the HRS, using PA/SI data, generates a score for each site evaluated. The score is computed based on factors such as the amount and toxicity of the contaminants present, their potential mobility in the environment, the availability of pathways for human exposure, and the proximity of population centers to the site.

The NPL is a compilation of the sites scoring 28.5 or higher by the HRS. Such sites are first proposed for NPL listing. Following a public comment period, proposed NPL sites may be listed final on the NPL or may be deleted from consideration.

IRP Priorities

The order in which DoD conducts IRP project activities is based on a policy assigning the highest priorities to sites that represent the greatest potential public health and environmental hazards. Top priority is assigned to:

- Removal of imminent threats from hazardous or toxic substances or unexploded ordnance (UXO)
- Interim and stabilization measures to prevent site deterioration and achieve life cycle cost savings
- RI/FSs at sites either listed or proposed for the NPL and RD/RAs necessary to comply with SARA.

Anticipating the need to refine priorities as the DERP matures and a large number of sites simultaneously reach the costly cleanup phase, DoD developed the Defense Priority Model (DPM). The DPM uses RI data to produce a score indicating the relative risk to human health and the environment presented by a site. The model considers the following site characteristics:

- Hazard – the characteristics and concentrations of contaminants
- Pathway – the potential for contaminant transport
- Receptor – the presence of potential receptors.

This risk-based approach recognizes the importance of protecting public health and the environment and helps objectively identify those sites that should receive priority for funding.

In FY 89, DoD completed development of the DPM. DoD solicited comments from EPA, the states, environmental organizations, and the public. In response to comments received, the model was refined. In addition, the model has been automated to facilitate scoring.

DoD component personnel have been trained in the use of DPM and have scored more than 250 sites where RD/RA activities could be initiated in FY 90. In this first year of implementation, scoring results were used primarily to identify scoring difficulties and gauge model performance.

In preparation for the FY 91 program scoring effort, further improvements were made to DPM. Most significantly, the methodology used to calculate toxicity of contaminants was changed to reflect more accurately actual toxicity data. Previously, surrogate values were calculated relative to the chemical benzo(a)pyrene. In addition, all information for contaminant characteristics contained in the DPM chemicals data base was updated. This update was conducted in cooperation with EPA to ensure consistency in methods. The DPM data base currently contains more than 280 chemicals, including explosives and radiologicals. Other improvements to DPM include clarification of terms and increased user friendliness of the automated version.

In the summer of 1990, scoring was accomplished for nearly 300 sites where RD/RA work could be initiated in FY 91. A quality assurance review indicated that site scores were more reliable than last year due to increased experience with the model and improved scoring guidance. Confidence is expected to increase each year the model is applied.

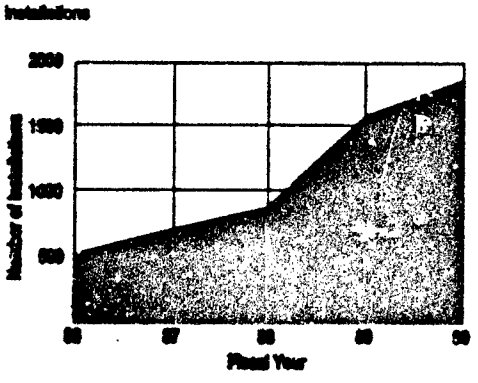
The Department has a continuing dialogue with EPA and states on DPM. During FY 91, DoD intends to continue to improve DPM and proceed with full implementation.

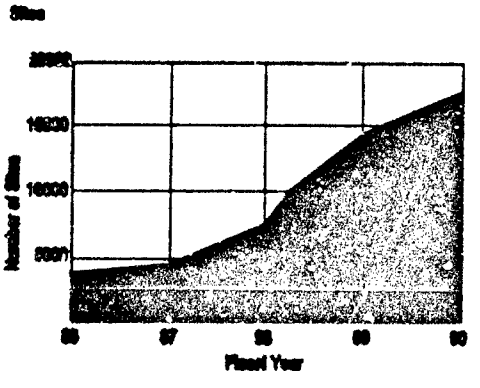


Flashing residual explosives at the West Virginia Ordnance Works NPL site. Highest priority is given to sites such as this, which represent public health and environmental hazards.

IRP Activity Levels Have Increased Significantly

The number of installations included in the IRP has increased steadily since the inception of the program. Consistent with the Department's worst-first policy, emphasis initially was placed on large, industrial facilities with the highest probability for contamination. Efforts expanded yearly to include smaller installations with lower hazard potential. In addition, installation reassessments initiated to satisfy SARA requirements identify additional sites not previously included in the program. It is anticipated that Resource Conservation and Recovery Act (RCRA) corrective action permits will continue to increase the number of IRP sites as these permits are issued to DoD installations.





By FY 89, 14,401 sites at 1,597 installations had been identified. In FY 90, these numbers increased to 17,482 sites at 1,855 installations. The installations added in FY 90 were small, nonindustrial properties. In addition to sites associated with these newly added installations, new sites were defined at installations already in the IRP due to reclassification of contaminated areas into individual sites and inclusion of new sites at installations already in the program. The recent program growth trend has begun to level off and is expected to stabilize over the next few years.

The number of installations listed on the NPL also increased dramatically in FY 90. At the end of FY 89, 41 DoD installations were listed on the NPL and another 46 were on the proposed list. By the end of FY 90, 89 DoD installations were listed on the NPL and none remained on the proposed list. (Because EPA has divided 6 of these installations into 2 NPL listings each, 95 DoD installations listings appear on the NPL.)

IAGs Are A Critical Step in the Cleanup of NPL Sites

SARA requires that an Interagency Agreement (IAG) be reached between EPA and DoD within 180 days after completion of the Record of Decision (ROD) for each NPL-listed facility. The ROD, a public document explaining which cleanup alternatives will be used at an installation, marks the completion of the RI/FS. The completed IAG provides a detailed management plan for the effective cleanup of the facility.

The involvement of EPA and state authorities in preparing the IAG ensures their concurrence, and therefore, enhances the public credibility of the course of action taken by DoD. The IAG also provides a strong management tool for resolving issues rising from overlapping or conflicting jurisdictions.

The IAG negotiation process involves the applicable DoD component and both the EPA regional office and state environmental authorities. The identification and resolution of issues typically takes several months. Once the parties conclude negotiations, the agreement is signed and made available for public comment. Comments received are considered and appropriate changes are made before the agreement goes into effect.

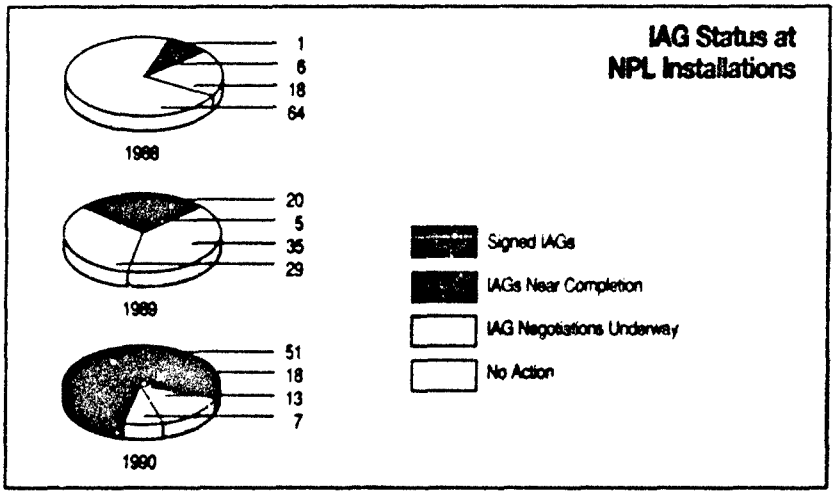
The Department recognizes the advantages of involving all parties well before the IAG is required (i.e., before the ROD). Accordingly, DoD has involved EPA and the states in the IRP process from early assessment and characterization through final cleanup of the site. The Department seeks a cooperative and collaborative ongoing effort with all parties to avoid discovering problems late in the process that could result in costly delays. The early establishment of good working relationships also resolves potentially duplicative and possibly conflicting regulatory requirements governing cleanup, such as those that occur between CERCLA and RCRA.

Significant IAG Progress In FY 90

In June 1988, the Department completed negotiation of IAG model language for NPL sites with EPA. The Office of the Deputy Assistant Secretary of Defense (Environment) subsequently issued guidance to the components concerning the state role in the IAG process. Nationwide, the negotiations simultaneously accelerated. Workshops were held with EPA and state agencies to refine site-specific language for the agreements. Training sessions for DoD personnel who will negotiate agreements also were held.

Negotiations with state agencies revealed concerns, especially regarding funding and jurisdictional matters of RCRA versus CERCLA. These and other issues are continually being discussed to settle such difficulties.

The progress already made is evident from the number of IAGs signed and nearing completion. By the end of FY 89, 19 IAGs had been signed for DoD installations proposed and final-listed on the NPL. By the end of FY 90, 51 IAGs had been signed covering DoD NPL installations. In addition, another 31 IAGs were underway. Of these, 18 IAGs were near completion.



DoD Supports State Participation Through DSMOAs

To facilitate active state participation, a process to allow DoD to reimburse the states for up to one percent of the Defense Environmental Restoration Account (DERA) costs was developed. This procedure was developed through lengthy negotiations between DoD and the Association of State and Territorial Solid Waste Management officials, the National Governors' Association, and the National Association of Attorneys General. Currently, only active DERP sites are eligible under this program.

These negotiations resulted in the development of a model Defense and State Memorandum of Agreement (DSMOA) (54 FR 31358, July 28, 1989). The DSMOA not only addresses state agency support at NPL sites, but also outlines the process for work at non-NPL sites. Along with non-NPL reimbursement, the DSMOA provides a process for DoD and the states to resolve technical disputes before judicial remedies are sought. The dispute resolution process is necessary, as most non-NPL work should not require any sort of formal agreement to accomplish cleanups. The DSMOA also includes provisions reflecting the willingness of the state to accept the DPM as DoD's method of establishing priorities among sites.

Reimbursement is available through a Cooperative Agreement (CA) to those states that have signed DSMOAs. The Commander, U.S. Army Corps of Engineers (USACE), has been designated as the DoD Executive Agent for receiving, processing, and monitoring CA applications. Each CA covers a 2-year period.

The CA provides funding at both the NPL and non-NPL sites within a state. The states' reporting requirements are minimal and allow them to transfer their oversight funding between installations. Past costs incurred after October 17, 1986 (the date SARA was enacted) also are covered in the CA. Currently, past costs at non-NPL sites only can be reimbursed through the CA.

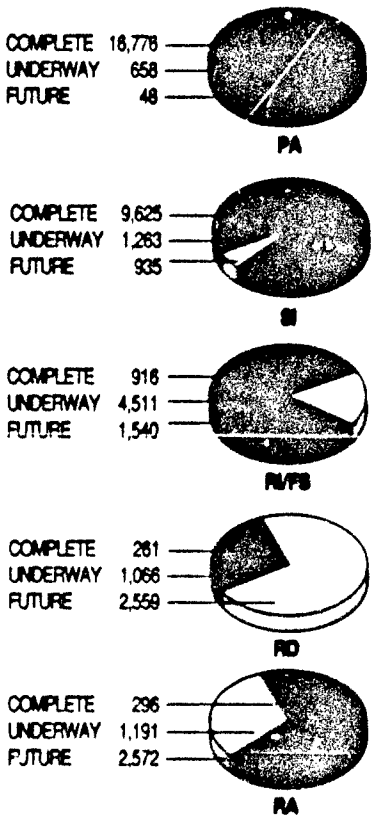
All states and territories have been contacted and encouraged to participate in the DSMOA process. Favorable responses have been received from more than 40 states and territories. DoD signed 12 DSMOAs and 11 CAs in FY 90, totaling $7.5 million.

The progress made in FY 90 in preparing DSMOAs and CAs represents significant achievements that will enhance cooperation among DoD, EPA, and state authorities. The establishment of IAG, CA, and DSMOA models and the training of DoD and state personnel in their development will help provide a nationally consistent process for effective site cleanup.

Installation Restoration Program Status

The Installation Restoration Program gained significant momentum in FY 90. By the end of the fiscal year, 8,689 projects were actively underway at sites throughout the nation. In keeping with the Department's worst-first policy, considerable effort has been focused on the 89 DoD installations included on the NPL. Sixty-eight of the 296 remedial activities implemented to date (removal actions, Interim Remedial Actions, and final Remedial Actions) have been at NPL sites.

IRP Status by Program Phase



The end point for IRP sites is closeout. A closed out site is one where no further actions are considered appropriate and no further response action is planned (NFRAP). NFRAP is a relatively new Superfund Program term that was incorporated into the NCP final rule in March 1990. The primary criteria for NFRAP is a determination that the site does not pose a significant threat to public health or the environment. NFRAP decisions can be made at any point in the IRP process, but must be documented and may be reversed if future information reveals that additional remedial activities are warranted.

This year marks the initiation of NFRAP as an indicator of IRP progress. At the end of FY 90, 6,361 sites, or more than 36 percent, were in the NFRAP category. Closing out these sites has required considerable resource expenditures and represents significant real progress in the IRP.

Installation Restoration Program
Summary of Installations and Sites

Service	Number of Installations	Number of Sites	Sites Requiring No Further Action
Army	1,286	10,459	5,036
Navy	242	2,253	775
Air Force	315	4,513	448
DLA	32	257	102
Total	1,855	17,482	6,361

In spite of the FY 90 progress registered in all phases of the IRP, the number of completed RI/FS and RD/RA activities reported is lower than in FY 89. This is not indicative of lost ground, but of improved tracking of actual site progress and the resulting reclassification of several sites.

A centralized IRP status tracking system was adopted by all Department components in FY 89. The accompanying re-evaluation of project status conducted over the last 2 years used more stringent criteria for determining when a program phase is complete. This resulted in several sites being removed from complete status and recategorized as underway or awaiting further action.

Summary of FY 90 Remedial Activities
Summary for all IRP Installations

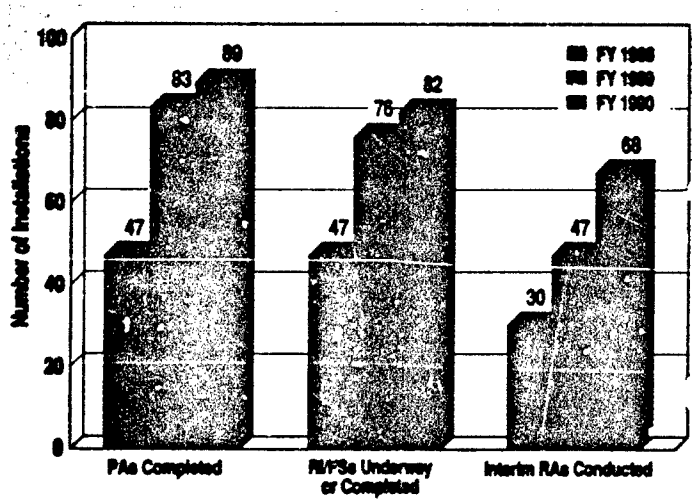
Type of Activity	Number of Activities	Number of Installations
Alternate Water Supply/Treatment	14	11
Incineration	6	3
Site Treatment/ Remediation	103	52
Decontamination	56	32
Waste Removal	201	108
Ground Water Treatment	48	32
TOTAL	428	238

Status as of September 30, 1990.

Installation Restoration Program Status as of September 30, 1990
Summary by Military Service

	Number of Sites (by Phase)														
	PA			SI			RI/FS			RD			RA		
	C	U	F	C	U	F	C	U	F	C	U	F	C	U	F
Army	10,447	5	7	4,469	154	745	301	971	730	134	269	415	135	276	409
Navy	2,222	26	3	1,579	543	64	51	750	531	8	20	1,051	31	50	1,084
Air Force	3,850	625	38	3,320	566	126	557	2,650	276	116	774	999	127	862	984
DLA	257	0	0	257	0	0	7	140	3	3	3	94	3	3	95
Totals	16,776	656	48	9,625	1,263	935	916	4,511	1,540	261	1,066	2,559	296	1,191	2,572

C = Completed Activity • U = Underway Activity • F = Future Activity Planned



Restoration Progress at DoD NPL Installations as of September 30, 1990.

By the end of FY 90, PAs had been completed at 16,776 of the 17,482 identified IRP sites. SIs had been completed at 9,625 of these sites. Based on PA/SI work completed to date, approximately 65 percent of the Department's sites have been found to require further investigation in the RI/FS phase.

By the end of FY 90, RI/FS efforts had been completed at 916 of the sites requiring such investigations. RI/FS activities are either complete or underway at 78 percent of the sites where they are needed. A significant increase in completions is expected during FY 91.

At the end of FY 90, 4,059 remedial activities were known to be needed at IRP sites. Of these, 296 had been completed and 1,191 were underway. During FY 90, 428 remedial activities were undertaken at 238 installations. The number of actions is greater than the number of installations, as more than one type of action was taken at some of the installations.

Solid Progress Is Evident at NPL Sites

The Department made steady gains in the evaluation and clean-up of NPL sites in FY 90. Completed PA activities at listed NPL installations increased from 83 to 89, while the number of RI/FSs underway increased from 47 to 81. Further, the number of installations at which IRAs were taken increased from 30 to 68 in FY 90.

FY 90 also saw the completion of RODs at the following NPL installations: Tinker Air Force Base (AFB) in Oklahoma, Ogden Defense Depot in Utah, West Virginia Ordnance Works, and Fort Lewis in Washington. (A ROD had been completed for the Concord Naval Weapons Station in FY 89; however, this installation was removed from the proposed NPL in FY 90). This progress reflects the emphasis DoD places on high-priority IRP sites.

Formerly Used Defense Sites

The Secretary of the Army is the DoD Executive Agent for the implementation of DERP at Formerly Used Defense Sites (FUDS). As Executive Agent, the Army is responsible for environmental restoration activities under DERP on lands formerly owned or used by any DoD components. The U.S. Army Corps of Engineers (USACE) is responsible for executing the FUDS program. Investigation and cleanup procedures at formerly used sites are similar to those at currently owned installations. However, information concerning the origin of the contamination, land transfer information, and current ownership must be evaluated before DoD considers a site eligible for restoration.

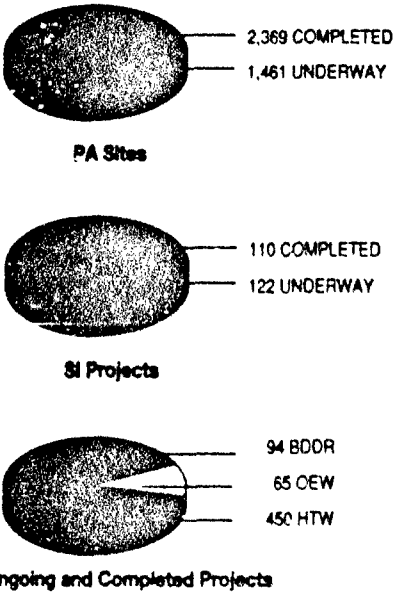
A total of 6,980 FUDS with potential for inclusion in the program have been identified through inventory efforts. By the end of FY 90, PAs had been initiated at 3,830 of the sites, of which 1,461 were underway and 2,369 were completed. Based on the completed PAs, it was determined that 1,588 sites were eligible and 781 sites were ineligible for the FUDS program. Of the eligible sites, 308 require no further action, but each of the other 1,280 sites requires one or more remedial/removal projects. SIs had been completed for 110 projects and were underway for another 122 projects as of the end of FY 90.

DoD has already funded 609 properties for further investigation and remedial action. These activities include 450 projects addressing hazardous or toxic waste (HTW) contamination from formerly used underground storage fuel tanks or landfills, and leaking polychlorinated biphenyl (PCB) transformers. Also included are 65 projects for detection and removal of ordnance and explosive waste (OEW) from former target ranges or impact areas. Prior to FY 88, 94 BDDR projects involving unsafe buildings or structures on formerly owned or used properties were completed. No BDDR projects have been conducted during the last 2 years.

USACE also represents DoD interests at NPL sites where former properties are located and where DoD may be a Potentially Responsible Party (PRP). Former properties that have passed from DoD control may have been contaminated by past DoD operations as well as by other owners, making DoD one of several PRPs. Ongoing USACE efforts will determine the allocation, if any, of DoD cleanup responsibility. USACE also cooperates with EPA, state, and other PRP representatives to facilitate the cleanup process.

At the end of FY 90, 12 FUDS were listed on the NPL. Ten of the sites are described in Appendix E. (The eleventh site, United Chrome Products, was deleted from DERP

Status of Activities at Formerly Used Properties



in early FY 91, as a result of a determination that DoD was not responsible for the contamination of the site. The twelfth site, West Virginia Ordnance Works, is an inactive site that is being remediated as an active site and is described in Appendix B.)

In FY 90, $58.6 million was spent on activities at former sites. The following are examples of work undertaken by USACE at formerly used properties in FY 90. (Appendix E provides additional details for FUDS on the NPL.)

Removal Action at Pine Grove Flats, NV

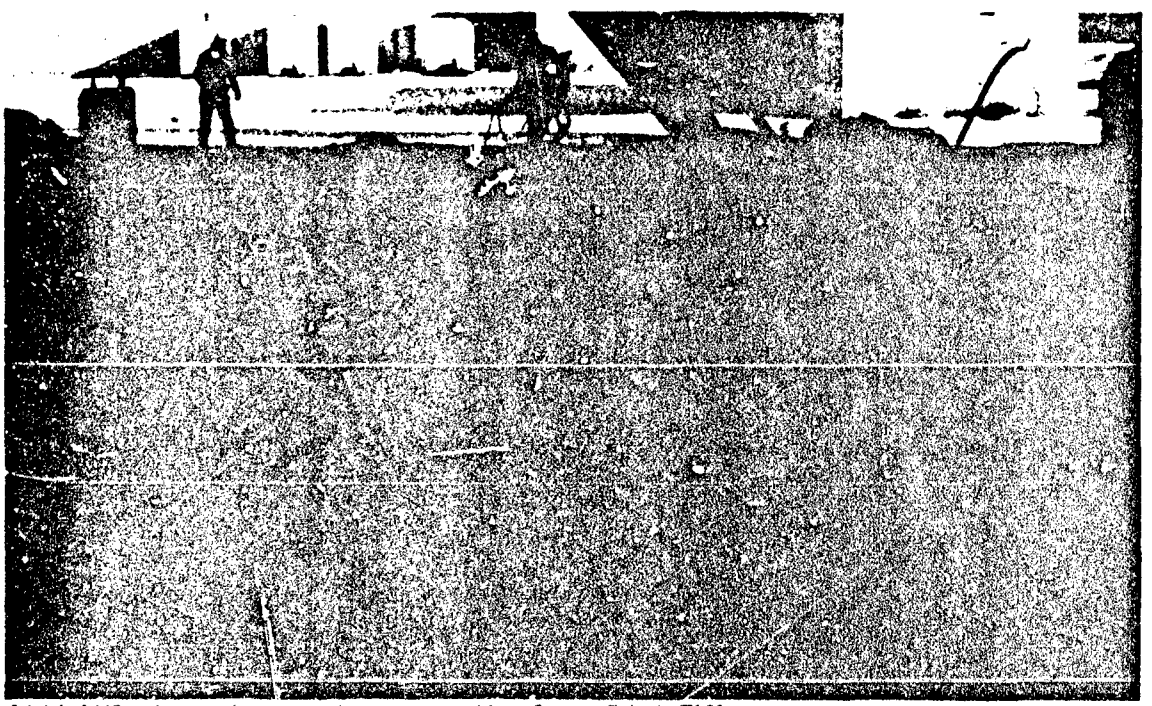
An old mine shaft in a remote part of Nevada was found to contain metal canisters of chemicals. The party that illegally dumped the canisters remains unidentified and no component of DoD ever owned the property. However, labels on the canisters indicated that they were once Army property produced prior to 1966 for deactivating chemical warfare agents. After the State of Nevada issued a Finding of Alleged Violation and Order to USACE and the Bureau of Land Management, USACE removed more than 400 canisters from the 30-foot deep mine shaft. Because of the mine shaft's instability, it was unsafe to enter and a fireman's hook had to be used to remove the canisters. The age of the canisters and the corrosive nature of the chemicals made it necessary to repackage all canisters prior to transportation and disposal. Negotiations with the State of Nevada are ongoing to determine if further response activities are required.

Tank Removal at Quonset Point, RI

During the winter of 1989-90, 113 underground fuel storage tanks were removed from the site. During the removal operation, a significant amount of soil and ground water contamination was encountered. The Rhode Island Department of Environmental Management proposed removing contaminated soil down to the water table, lining the holes with polyethylene, and backfilling with clean material.

The State of Rhode Island accepted a USACE counter proposal, which resulted in an RA consisting of backfilling the holes with the contaminated soil, performing a soil gas analysis supplemented by monitoring wells, and, as necessary, installing skimming wells to recover free product in the ground water. An RI/FS will be conducted to determine the extent of environmental contamination and the need for long-term remediation.

These negotiations were initiated by USACE, resulting in a substantial savings of $500,000 to the government, while achieving compliance with regulatory requirements and maintaining good relations with the State of Rhode Island regulatory agencies.



A total of 113 underground storage tanks were removed from Quonset Point in FY 90.

Rapid Response at Valley Forge General Hospital, PA

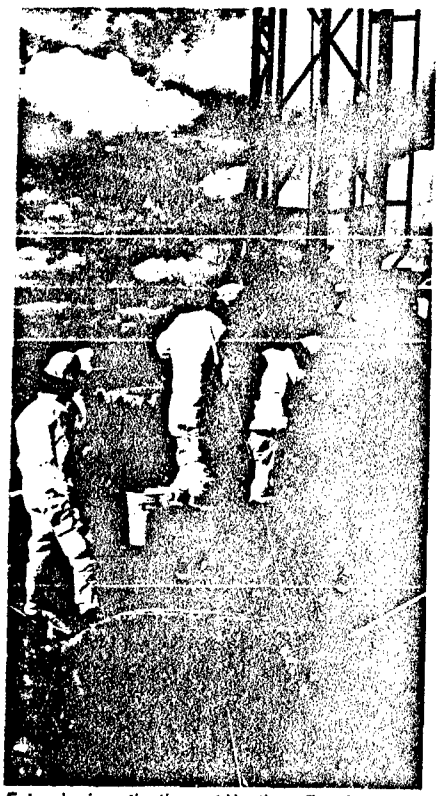
In May 1990, the presence of pesticides and herbicides was discovered by property owners in an unused part of the hospital complex. One month later, the USACE Rapid Response Team overpacked, transported, and disposed of approximately 10 drums of hazardous chemical waste. The Team was able to perform a quick removal of the chemicals. Local residents were pleased with DoD's concern for public health and the environment.

Removal Action at Port Heiden, AK

More than 8,000 drums and several large-capacity above ground and underground fuel tanks were abandoned at Port Heiden Radio Relay Site by the Army and the Air Force after World War II. The remote location of the site required large-scale mobilization using barges for equipment and living quarters before the RA began in the summer of 1990. HTW as well as other regulated materials were removed from the site and transported to approved disposal facilities in the continental United States. Unregulated wastes were recycled, to the extent practical, incinerated onsite, or buried in local approved landfills. The removal action was successfully completed before the winter season began.

ROD at Hastings East Industrial Park, NE

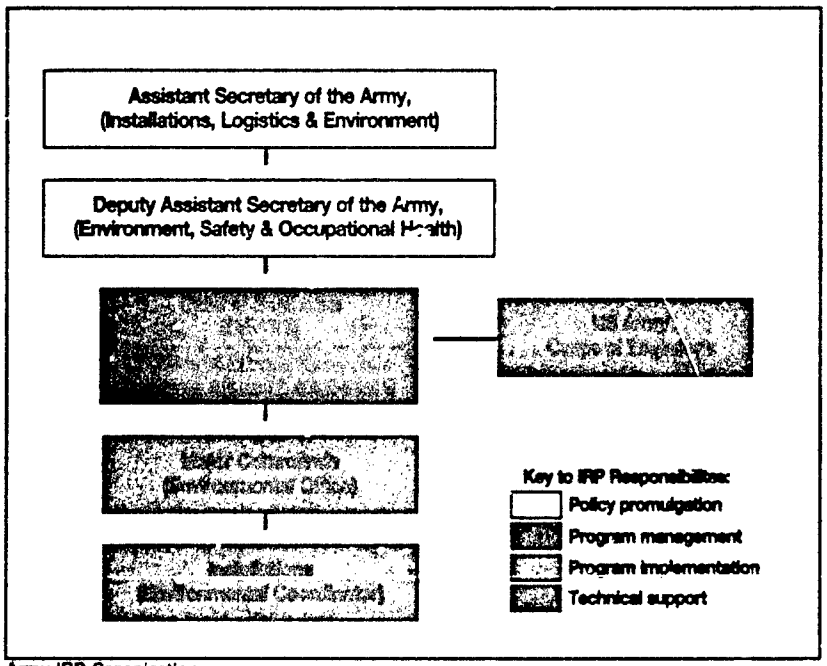
In September 1990, USACE achieved a major milestone when a ROD was signed to allow the official cleanup of the contaminated soil operable unit at the Hastings East Industrial Park, formerly the Blaine Naval Ammunition Depot. In 1991, USACE will prepare engineering design documents for incineration of explosives-contaminated soils.



Extensive investigations at Hastings East Industrial Park culminated in the FY 90 signing of a ROD for the cleanup of this FUDS.

Army IRP Progress

The most significant IRP growth among DoD components in FY 90 occurred in the Army's program. This growth was the result of aggressive action taken by the Army to evaluate all installations and Army reserve centers. The number of sites included in the Army IRP increased from 8,642 in FY 89 to 10,459 in FY 90. IRP activities have been completed and no further remedial action is planned at 5,036 Army sites, or almost one-half of the sites in the program.



Army IRP Organization

By the end of FY 90, PA work had been completed at all but 12 Army IRP sites and SI work had been completed at 4,469 sites, or 83 percent of the sites where it is known to be required. The number of completed RI/FSs decreased in FY 90 due to extensive re-evaluation of site status, principally at NPL installations with signed IAGs. However, the number of sites where RI/FS work is underway or complete increased from 1,106 in FY 89 to 1,272 in FY 90. By the end of FY 90, 411 remedial activities were underway or completed at Army IRP sites.

In FY 90, IAGs were signed covering 13 Army NPL installations, bringing the total number of Army NPL installations covered by IAGs to 23. RI/FS activities are underway at 28 of the Army's NPL facilities. Removal actions and IRAs have occurred at 30 Army NPL facilities.

The following are examples of significant Army IRP project activities conducted in FY 90. (Appendix B provides additional details for installations final-listed on the NPL.)

Landfill Closure at Iowa Army Ammunition Plant, IA

In August 1990, the Army completed the excavation of 3,500 cubic yards of lead-contaminated soils and the construction of a 15,000-cubic yard clay cap on the landfill. These actions were performed under a RCRA closure plan that was approved by EPA in September 1988. The discovery of additional contaminated soils requiring excavation had delayed efforts to complete overall construction. Remedial actions are ongoing that will allow final closure of the site.

Cleanup Agreement Signed at APG

In March 1990, the Army and EPA signed an agreement to clean up two Superfund sites at Aberdeen Proving Ground. One of the sites, the Edgewood Area, was used for testing and disposal of chemical and conventional munitions since 1918. The agreement sets schedules, assigns responsibilities and provides for cooperation and consultation with all involved agencies.

ANAD Ground Water Cleanup, AL

A series of ground water pump-out systems have been installed to control ground water contamination at the Anniston Army Depot (ANAD) Alabama. Volatile organic compounds (VOCs) were disposed of in three areas: the Trench Area, the Landfill Area, and the Northeast Area. Sixteen extraction wells have been installed in these three areas to collect contaminated ground water which is then treated to remove contamination.

Cleanups at Rocky Mountain Arsenal, CO

To accelerate remediation at the Arsenal, the Army, EPA, Colorado Department of Health, and Shell Oil Company have agreed that 13 IRAs should be conducted to reduce contaminant migration and remove health threats. IRAs completed within the last year include the installation of two new intercept and treatment systems and the closure of approximately 352 abandoned wells. An extensive community relations plan was implemented to guide and facilitate the Army's interaction with the communities near the Arsenal and to increase public awareness. Approximately 14 public meetings, workshops, and training sessions have been conducted in the area.

"There is an unabashed willingness to comply with environmental regulations at APG."

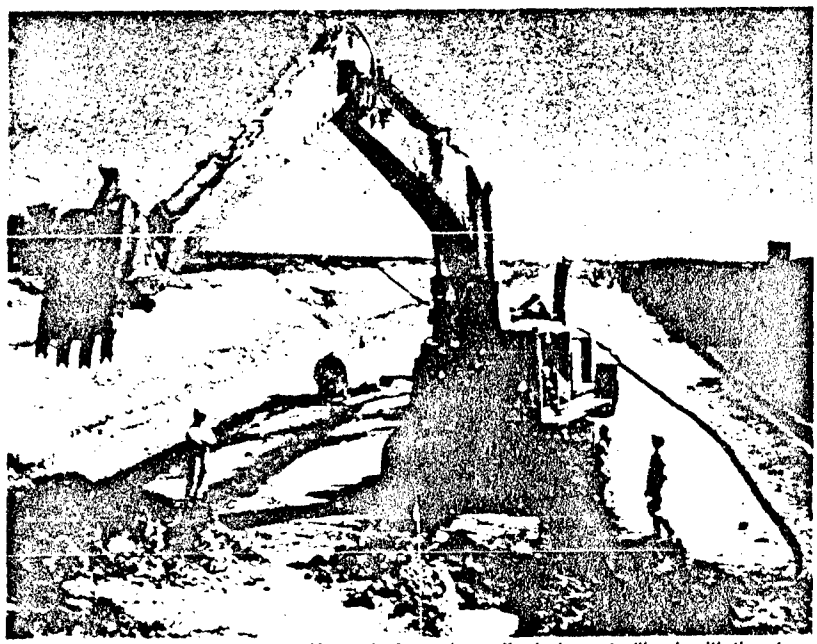
Senator Barbara Mikulski, Maryland

Incineration of Contaminated Soils at Louisiana AAP

In March 1990, the Army completed the incineration of 102,000 tons of explosives-contaminated soils. Revised excavation criteria were approved by the State of Louisiana and EPA, allowing shallow excavation of the soils from the Area P lagoons in lieu of deep excavation. Because of the high concentrations of explosives in the shallow soils, these revised criteria were estimated to achieve greater than 99 percent explosive removal while reducing the amount of soils requiring destruction. These measures resulted in estimated cost savings of $10 million. The total project cost is approximately $33 million.

Ground Water Cleanup at Sharpe Depot, CA

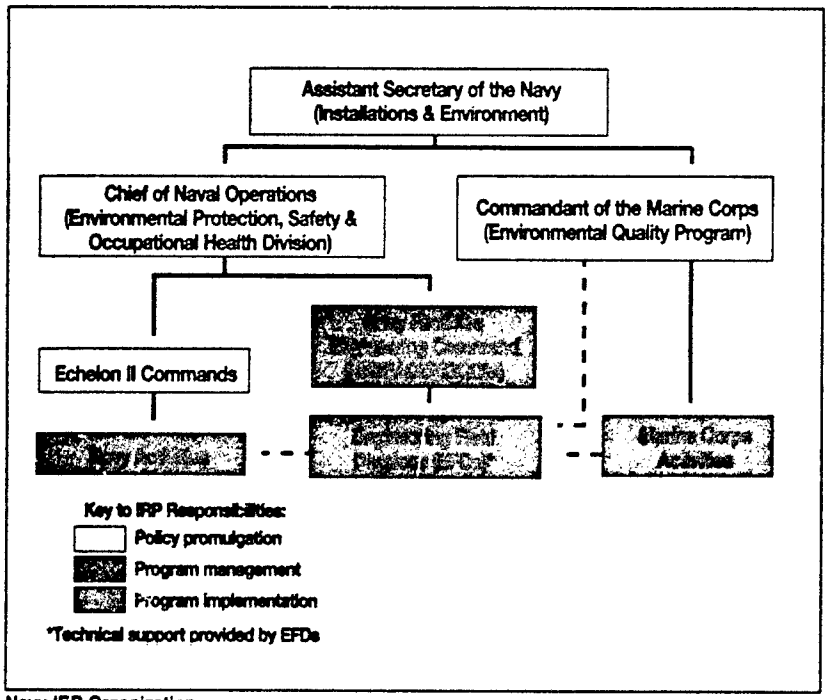
Sharpe Depot is using extraction wells to withdraw contaminated ground water and air stripping towers to remove volatile organics from the water. Past practices involved discharging treated water to a canal. However, in September 1990, the Army began sending the cleaned water to a nearby power plant for use in steam generation. This practice has significantly reduced problems associated with discharging treated water in the canal and decreased the use of water resources in the area. The rate of water supplied to the power plant, now 300 gallons per minute (gpm), is expected to increase to 500 gpm in 1991.



Interim Remedial Actions at Rocky Mountain Arsenal are effectively controlling health threats posed by past activities.

Navy IRP Progress

The number of Navy sites included in the IRP increased slightly in FY 90. An additional 222 Navy sites were added to the IRP last year, bringing the total to 2,253 sites at 242 installations. IRP activities have been completed at 775 sites, or 34 percent of the sites in the Navy program.



Navy IRP Organization

PA completions at Navy sites increased from 1,980 to 2,222 during FY 90 and SI work was completed at 1,579 sites as of the end of the fiscal year. The number of sites at which RI/FS work was completed increased from 10 to 51 sites in FY 90. At the end of the fiscal year, RD work had been performed at 8 sites, while 31 RA activities were completed at Navy sites.

IAGs were signed covering five of the Navy's NPL installations in FY 90, bringing the total number of Navy NPL installations covered by IAGs to eight. SIs have been completed at 20 of the Navy's listed NPL installations. RI/FS activities are underway at 19 Navy NPL facilities and removal actions and IRAs occurred at 9 Navy NPL facilities in FY 90.

The following are examples of significant Navy IRP project activities conducted in FY 90. (Appendix B provides additional details for installations final-listed on the NPL.)

Cleanup Agreement for Camp Pendleton, CA

In October 1990, an agreement was signed by federal, state, and military officials to clean up hazardous waste at Camp Pendleton. This marks the first cleanup agreement in EPA's western region. Cleanup work will include the removal of contaminated material from the Marine Corps base, a major toxic site and the last large undeveloped coastal property in Southern California. Field investigations identified several contaminants, including spent oils, solvents, pesticides, metals, and PCBs at 22 areas throughout the 125,000-acre base. Cleanup costs currently are estimated at $29.5 million.

Camp Pendleton cleanup agreements "...lay the foundation for the effective working relationships which will be crucial to cleaning up these sites expeditiously and in a manner fully protective of public health and the environment."

Daniel McGovern
Region IX Administrator
Environmental Protection Agency

Removal Actions at Saint Lawrence Island, AK

A PA conducted by the Navy at Saint Lawrence Island in 1989 identified transformers and drums containing hazardous chemicals that posed a threat to human health and the environment. The overall contamination at the site has resulted from spills, leaks at storage areas, burial in landfills, and random disposal of drums.

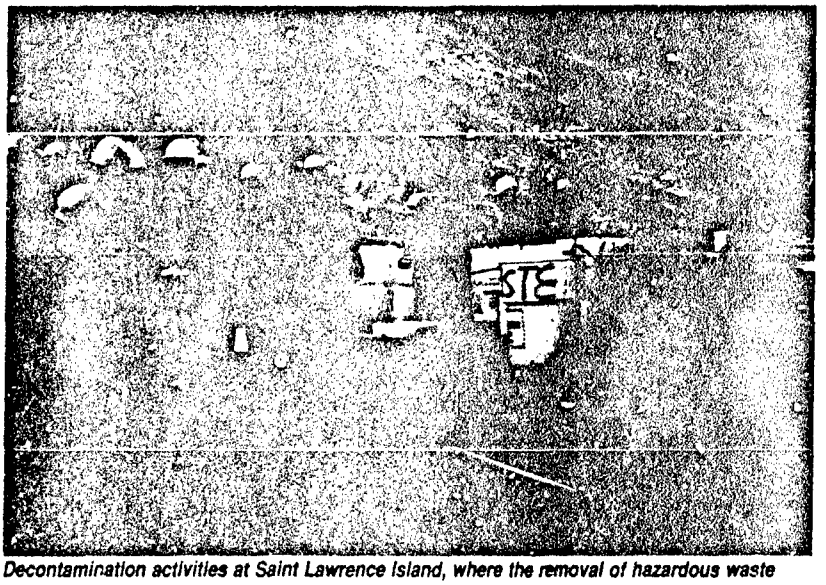
In July 1990, the Navy initiated the removal of approximately 1,000 drums, 30 transformers, and 17 compressed gas cylinders from the site. The cleanup crew was operating under arduous conditions in an area where access limitations required importation of utilities, supplies, equipment, and personnel by helicopter. Hazardous wastes removed from the site were packaged and airlifted offsite. Transfer of these hazardous contaminants removed the potential for immediate danger to life and health, preserved the delicate arctic ecology, and began the process of environmental cleanup in the area.

NIROP Ground Water Cleanup, MN

In September 1990, a ROD was signed between the Navy, the Minnesota Pollution Control Agency, and EPA, which will allow for the cleanup of contaminated ground water at the Naval Industrial Reserve Ordnance Plant (NIROP). The ROD outlines a two-phased plan that calls for the installation of five pumping wells, and the construction of a treatment plant to pump and treat ground water to meet federal drinking water standards. The selected cleanup plan is designed to prevent further movement of trichloroethene (TCE) contaminated ground water toward the Mississippi River.

ROD for Ships Parts Control Center, Mechanicsburg, PA

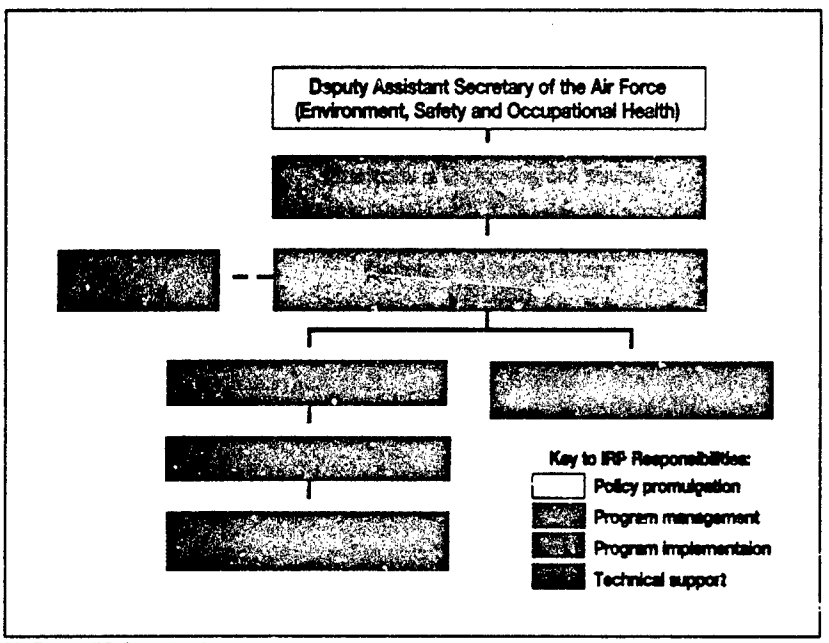
A ROD was signed in September 1990 to allow for the cleanup of a storm water drainage ditch contaminated with PCBs. Remediation for the first segment of this non-NPL cleanup has been awarded. This work includes excavating sediment to bedrock for the first 2,300 linear feet of the ditch. In response to low contaminant concentrations and safety considerations due to sinkholes in the unstable karst terrain, the Navy has fenced the area. Dams have been installed to trap sediments. The remainder of the remediation will include removal of sediments where composite samples indicate concentrations over 5 parts per million (ppm) of PCBs and the addition of another gabion dam. Long-term monitoring and confirmatory sampling are included in the overall ditch remediation.



Decontamination activities at Saint Lawrence Island, where the removal of hazardous waste eliminated potential immediate dangers to life and health.

Air Force IRP Progress

The number of Air Force IRP sites increased by almost 30 percent in FY 90 to 4,513 sites at 315 installations. IRP activities have been completed and no further remedial action is planned at 448 Air Force sites.



Air Force IRP Organization

PA work has been completed at 3,850 of the Air Force's 4,513 IRP sites, while SI work has been completed at 3,320 sites. Although the Air Force's reclassification of site status resulted in a decrease in RI/FS completions in FY 90, the number of sites where RI/FS work is underway or complete increased from 2,248 in FY 89 to 3,207 in FY 90. Further, RI/FS investigations are underway or have been completed at every major Air Force installation and most major industrial plants. No increases in completed RD/RA work were registered at Air Force facilities in FY 90. However, more than 500 remedial activities were initiated, bringing the total number of RAs underway or completed to 989.

During FY 90, the Air Force completed and signed IAGs for 11 NPL installations. This brought the total number of Air F rce NPL installations with signed IAGs to 18. PA/SI work has been completed at all of the Air Force's 31 listed NPL installations and RI/FS activities are underway at all of these facilities. Removal actions and IRAs have occurred at 28 of the Air Force's NPL facilities.

The following are examples of significant Air Force IRP project activities conducted in FY 90. (Appendix B provides additional details for installations final-listed or proposed for the NPL.)

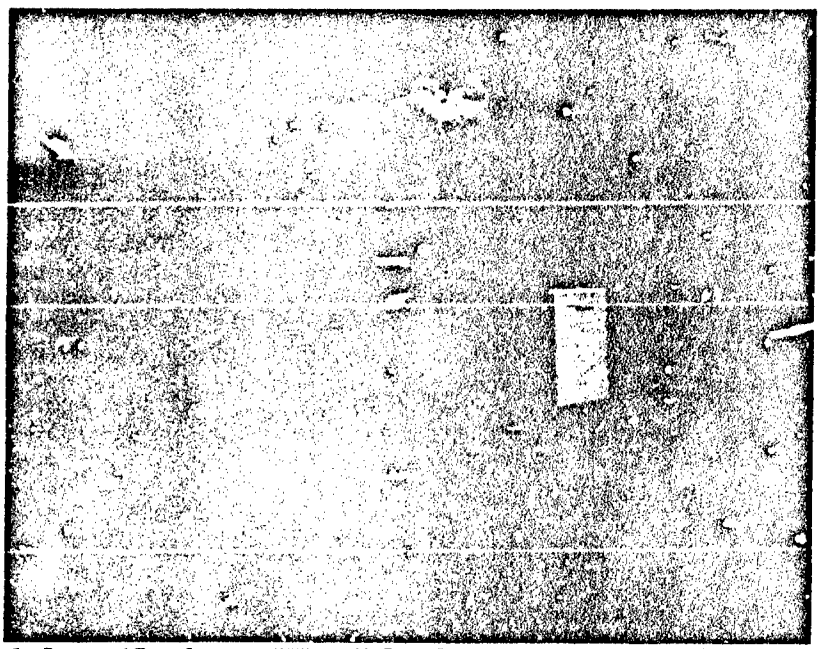
ROD at Tinker AFB OK

Tinker AFB became the first Air Force installation to sign an agreement for cleaning up an NPL site. The ROD was approved by EPA, along with Tinker AFB and the Oklahoma State Department of Health. Approximately 100 people attended a public meeting held in April 1990 to discuss cleanup options for the three segments of the site. The meeting allowed the public an opportunity to ask questions and voice concerns regarding the intended cleanup alternatives.

The proposed cleanup alternative for the ground water includes installing 129 extraction wells, constructing a separate wastewater treatment facility to treat extracted ground water, and reusing the treated water in Tinker's existing industrial processes.

Ground Water Treatment at McClellan AFB, CA

Investigations at McClellan AFB have revealed ground water contamination caused by rainwater leachate from a 10-acre waste pit area. A cap was constructed over the waste pits to prevent further leaching of contaminants into the ground water. A series of extraction wells have been installed to pump ground water to an onsite treatment plant. The plant has been in operation since 1987 and currently is receiving the pumped water at a rate of 250 gpm. The treatment system consists of air stripping and carbon filtration. The treated water is released into Magpie Creek; however, future plans call for reclaiming the treated water for industrial uses.



The Pump and Treat System at Williams Air Force Base is currently recovering fuel from groundwater on a continuous basis.

Cleanup Effort Earns Environmental Honors at Kelly AFB, TX

Kelly AFB has earned national recognition for its efforts in cleaning up a jet fuel spill on the east side of the base near Quintana Road. Renew America, a nonprofit organization based in Washington, DC, that promotes a safe and healthy environment, awarded Kelly AFB an Environmental Achievement Award certificate for the Quintana Road Pilot JP-4 Fuel Recovery Project.

The award selection is based on the ability of a project to protect, restore, or enhance the environment. The success of the project was due to close, continuing cooperation between the neighborhood, the Air Force, the city of San Antonio, and regulatory agencies.

Innovative Cleanup System at Williams AFB, AZ

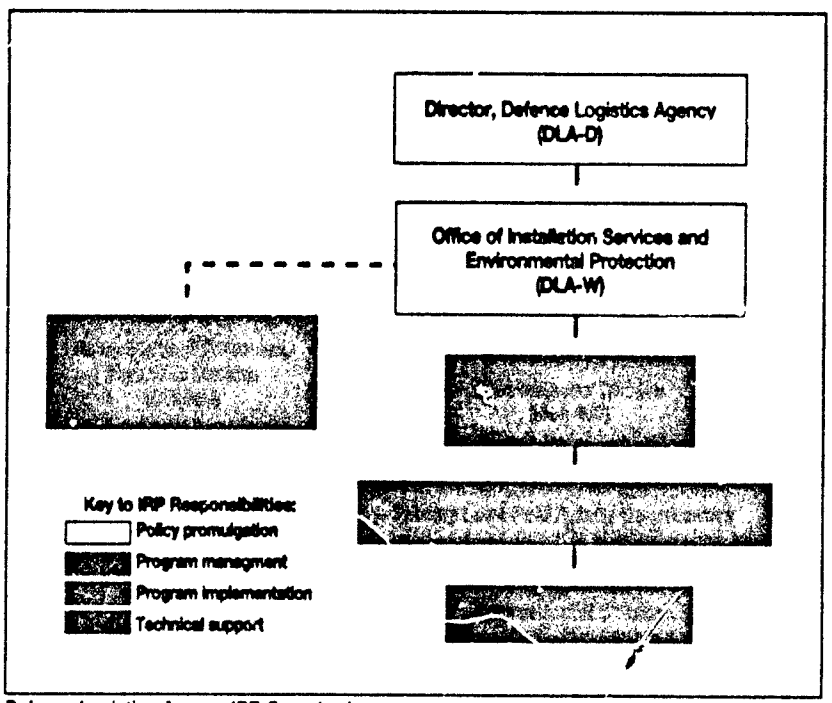
Williams AFB is using a new aquifer pumping system to treat contaminated ground water at the site. The system became operable in August 1990, recovering fuel that had contaminated ground water from a leaking underground storage tank. The down-hole pumping system is equipped with a product pump inlet approximately 13 feet above the water pump inlet. Fluid levels are monitored with a pressure transducer to ensure that the fluid/air interface is maintained across the product inlet. David Annis, Project Manager for the Arizona Department of Water Resources, observed a system demonstration and stated that the testing and recovery system was impressive, and it was obvious that a great deal of effort had been put into both designing the system and adapting it to conditions at the site.

The Quintana Road project was "...an environmentally successful program, one that can be replicated...in many communities interested in solving similar environmental problems."

Tina Hobson
Executive Director
Renew America

Defense Logistics Agency IRP Progress

The Defense Logistics Agency (DLA) IRP continued to show steady progress in all areas in FY 90. The number of installations and sites in DLA's program increased slightly in FY 90 to 32 sites at 257 installations. IRP activities have been completed and no further remedial action is planned at 102 sites, or almost 40 percent of the DLA sites in the program.



Defense Logistics Agency IRP Organization

PA/SI work has been completed at all of DLA's 257 sites and RI/FS work is complete or underway at 147 of the 150 sites targeted for such studies. Six remedial activities are complete or underway at DLA sites.

In FY 90, IAGs were signed covering two DLA installations. These were the first IAGs completed for DLA NPL installations. PA/SI work has been completed and RI/FS activities are underway at all three of the DLA installations final-listed on the NPL. Removal actions and IRAs have occurred at one of DLA's three NPL facilities.

In July of FY 90, Sharpe Army Depot (AD) was transferred from the Army to DLA, making Sharpe AD the fourth DLA installation listed on the NPL. Because the Army was responsible for most of the work conducted at the installation through FY 90, Sharpe AD is not included in the DLA program counts presented in this report.

The following are examples of significant DLA IRP project activities conducted in FY 90. (Appendix B provides additional details for installations on the NPL.)

ROD at Ogden Defense Depot, UT

Ogden Defense Depot became the first DLA installation to sign an agreement for cleaning up an NPL site. EPA Region VIII, the State of Utah, and the depot approved a ROD for cleanup operations. A public hearing was held in July 1990 to discuss cleanup options for both the soil and ground water. The meeting provided the public an opportunity to voice their concerns and ask questions regarding the cleanup alternatives.

Approximately 40 cubic yards of soil will be removed and incinerated. A pump and treat system with reinjection into the aquifer is the proposed remedial action for ground water.

Bioremediation at Defense Fuel Support Point in Casco Bay, ME

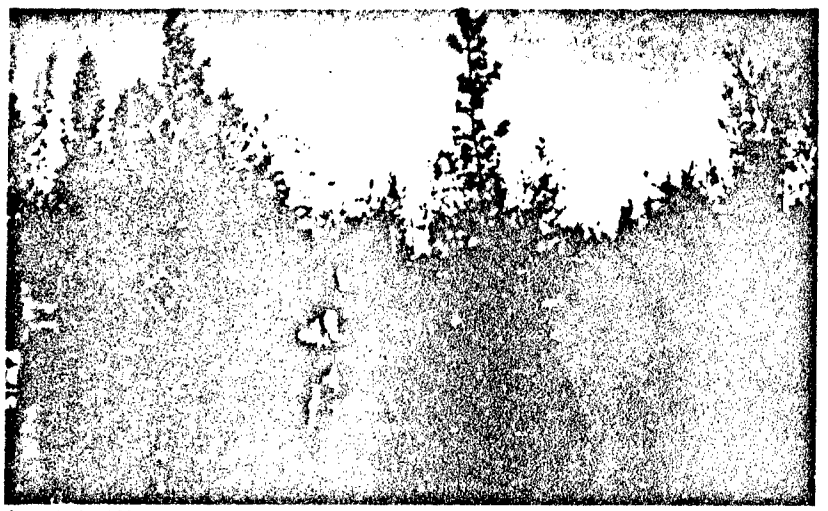
Bioremediation of soil contaminated with 6,500 mg/kg of JP-5 jet fuel began in August 1990. By November, concentration levels had been reduced by 70 percent. Approximately 600 cubic yards of contaminated soil was removed to a tank dike area where it was fertilized using nitrogen, phosphorous, and potassium. Natural rainfall provided soil moisture. The soil was spread thinly (6 inches) to allow for maximum oxygen diffusion into the soil.

Earlier laboratory data had demonstrated the presence of sufficient populations of JP-5 degrading bacteria. The bacteria utilize the jet fuel as a food source and require only oxygen, nutrients, and water to reduce the contaminants to harmless byproducts. The cleanup process is expected to be completed in early 1992.

Removal Action at the Arctic Surplus Site, Fairbanks, Alaska

Through a Consent Order with EPA, DLA performed a removal action at this privately owned site. This site was placed on EPA's NPL during 1989. DLA's objective was to remove the major wastes to avoid any potential for public exposure. Surplus materials had been placed at the Arctic Surplus Site by the private owners and operators of the salvage yard. Most of these materials were purchased through the local DRMO, a DLA tertiary level field activity. DLA became involved at the site because of the potential imminent threat to public health.

By the end of FY 90, activities completed at the site included staging 3,041 empty 55-gallon drums, sampling and testing 1,878 full 55-gallon drums, draining and packaging 676 batteries, excavating 84 cubic yards of chlordane-contaminated soils and 200 cubic yards of lead-contaminated soils, and testing and draining 135 transformers. In addition, an incinerator was disassembled and associated dioxin-contaminated materials and soil were removed. The waste materials collected during these activities are being transported to permitted toxic waste landfills and incineration facilities.



A total of 1,878 55-gallon drums were tested at the Arctic Surplus Site in 1990.

Other Hazardous Waste Program Progress

The Other Hazardous Waste (OHW) Program, the second element of DERP, examines current operations to find cost-effective approaches to DoD's waste management activities and to prevent pollution at the point of generation. Funds are provided to promote DoD's total quality management of hazardous waste initiatives. Such efforts include research, development, and demonstration of pollution prevention and hazardous waste management technology. This work involves studies of UXO detection and range clearance methods; investigation of alternate products, revised specifications, and improved acquisition and operating practices; procurement of hazardous waste reduction equipment; information exchange; and other environmental restoration and pollution prevention activities.

In July 1989, DoD published a directive entitled "Hazardous Materials Pollution Prevention." In this Directive, the prevention of pollution is emphasized to replace historical end of pipe solutions. This policy requires that hazardous materials be selected, used, and managed over their life cycle so that DoD realizes the lowest cost to properly protect human health and the environment. The preferred approach is to avoid or reduce hazardous materials use. With the issuance of this Directive, DoD components are required to:

- Include guidance on hazardous materials in all directives, regulations, manuals, specifications, and other guidance documents issued
- Develop and maintain effective programs to manage hazardous materials responsibly, including the examination of alternatives to such materials, and ultimately, reductions in the amount and toxicity of materials used
- Establish adequate reporting to track progress in achieving program goals
- Participate in information exchange on hazardous materials pollution prevention
- Cooperate with environmental agencies pursuing similar objectives.

The July 1989 Directive augments extensive waste minimization work already underway within the services, especially the logistics community. It requires that environmental concerns be integrated into the Department's everyday work.

In FY 90, $22.5 million in DERP funds were provided for hazardous waste minimization projects. Notable examples of OHW Program accomplishments are provided below.

Hazardous Waste Source Reduction

The Aircraft Intermediate Maintenance Department (AIMD) at the Marine Corps Air Station, Yuma, Arizona has reduced its generation of liquid hazardous waste by 90 percent. This was accomplished by segregating all sources of concentrated hazardous waste and minimizing the amount of hazardous material used in each process. All rinse water generated by AIMD shops is analyzed, allowing elimination of source contamination through product substitution or changed operation techniques. Estimated cost savings per year are $270,000, with a corresponding annual waste reduction of 108,000 gallons.

Aerobic Biodegradation

The Air Force Engineering Service Center is developing a full-scale aboveground bioreactor capable of treating ground water and waste streams contaminated with mixtures of chlorinated aromatic compounds. Bench scale experiments have shown that it can aerobically biodegrade complex mixtures of solvents and chemicals to non-detectable levels.

The pilot-scale bioreactor was tested at Kelly AFB under a variety of operating conditions. The system reduced concentrations of various solvents from the parts per million level down to the parts per billion level at a 40-minute retention time. Several chlorinated solvents previously considered nonbiodegradable were readily degraded by this system. A second field test is scheduled for 1991 to collect additional operating data for use in the design of a full-scale system.

Aluminum Ion Vapor Deposition

The Army is conducting a test program at ANAD, Alabama to determine the feasibility of using Ion Vapor Deposition (IVD) of aluminum in lieu of cadmium plating at Depot facilities. Cadmium plating operations are a large source of hazardous waste generation at many ADs. Aluminum IVD does not generate hazardous waste and the aluminum is nontoxic. Worker exposure to toxic materials is reduced by the elimination of plating solutions. Further, aluminum IVD provides superior corrosion resistance compared to cadmium plating.

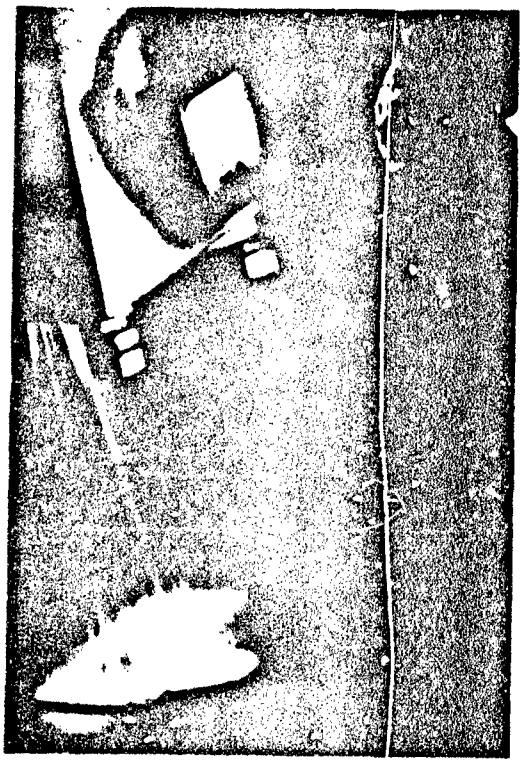
Chlorofluorocarbons Substitution

This research is intended to identify and validate less or non-ozone depleting alternative materials for chlorofluorocarbons (CFCs). The research includes establishing benchmark values for military specifications materials using standardized techniques for board assembly and testing, and evaluating new and existing alternative cleaning materials using the same procedures as benchmark testing. Further studies will include testing of a terpene-based solvent that does not contain CFCs, identifying and quantifying contaminants in recycled CFC cleaning solvents, and determining the possible adverse effects of ultrasound cleaning on the reliability of soldering joints and internal wire bonds on printed wire assemblies.

Spray-Casting

The Air Force Engineering Service Center is developing a spray-casting process to replace electroplating operations. Current electroplating processes involve the use of concentrated, complexed metal plating solutions that require extensive ventilation and health and safety procedures.

The use of this technique will provide significant benefits, including the elimination of hazardous waste, reduction of health and safety problems, and decreased air quality problems and ventilation costs. Annual savings of $450,000 associated with material usage and waste disposal costs are projected. In addition to these benefits, superior coating engineering properties (i.e., yield strength, tensile strength, hardness, ductility) can be achieved. A full-scale demonstration is scheduled at Tinker AFB in FY 93/94.



Spray-casting is being developed as a pollution-free alternative to electroplating.

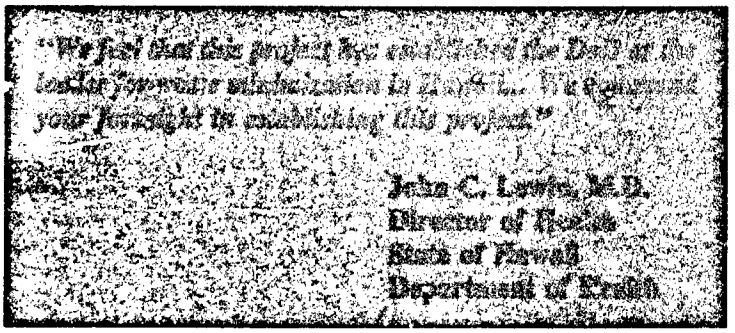
Hawaii Hazardous Waste Minimization Project

The Hawaii Hazardous Waste Minimization Project is a multi-phase venture in which efforts are being developed and implemented to reduce hazardous waste generation rates and off-island disposal needs for all military operations in the State. Near-term recommendations have been developed and are being pursued at 21 Army, Navy, Air Force, Marine Corps, DLA, and National Guard installations. These near-term measures, defined as activities that could reasonably be implemented within one year, are estimated to result in reductions in DoD's waste generation rates in Hawaii by up to 28 percent once implemented. Potential savings of almost $500,000 per year are projected for all of the near-term measures being pursued.

The next several phases of the project, which is being managed by the Navy, will formulate, implement, and evaluate long-term waste minimization measures. The entire project is scheduled for completion by 1996.

Asbestos Replacement

A study for asbestos replacement in packing/gaskets has been initiated and two of the three phases of the study have been completed. Physical parameter and detrimental material screening tests have been completed. Laboratory testing of a fixed test fixture to simulate rotary and reciprocating fixtures according to Navy standards is underway. Further investigations include additional rotary testing and follow-on in-service evaluations at the Great Lakes Naval Training Center. The importance of this study's success is exemplified by the approaching EPA ban on asbestos.



Electroplating Metals Recovery

Naval Aviation Depot, Norfolk has developed a successful program to reduce cyanide wastewater generation in their electroplating lines by 50 percent. The Depot has installed two electrolytic recovery units, one on the cadmium-cyanide plating line and one on the silver-cyanide plating line. These units electrochemically oxidize dissolved cyanides in the rinsewaters to produce cyanates. Simultaneously, the metals (cadmium and silver) are reduced to their elemental state and recycled to the plating tanks. Approximately 99 percent metal recovery is achieved.

The Depot's goal is to reduce all hazardous waste generation by exploring additional technologies, including recycling of chromium rinsewater and scrubber waters from a hard chrome plating line, substituting for hard chrome plating, converting from water-base filters to dry filters in paint booths, freeze crystallization treatment for metal-laden rinse water, and ozone treatment for organic chemicals.

Solvent Distillation

The disposal of PD-680 waste has been eliminated at Naval Air Station Whidbey Island, Washington. PD-680 is an organic-based solvent used in parts washers for cleaning and degreasing operations. Used solvents are now sent offsite and distilled for reuse, reducing costs associated with waste disposal and material usage.

Hazardous Materials Reduction Program

A chemical use reduction program has been established at Tinker AFB, Oklahoma within the last year. This special program reviews the justification and authorization for using hazardous materials base-wide. Although the program is new, it has already accomplished a reduction in the use of some chemicals by one-third. The program is currently being expanded to manage all chemicals on base by FY 91.

Inventory Control

A training program to educate users in the identification, control, and use of hazardous materials has also been implemented at the Naval Air Station, Whidbey Island. The program is intended to improve inventory control by avoiding overstocking of hazardous materials and by turning in unused materials to supply for possible resale and reuse prior to shelf-life expiration. Institution of the training program has reduced hazardous waste by approximately 12,000 pounds per year.

Research, Development, and Demonstration

Traditional approaches to hazardous waste site cleanup may not be permanent or cost-effective solutions. These approaches can require large capital outlays and operating costs and may merely move the problem from one location to another. DoD is working to identify and develop permanent cleanup technologies and innovative waste site investigation techniques that will be efficient and cost-effective. In addition, significant effort is being focused on the development and testing of methods to reduce the generation of hazardous wastes at DoD facilities. While these efforts require large financial commitments upfront, the potential future cost savings are enormous.

In FY 90, DoD invested approximately $47 million of Environmental Restoration Account funds in Research, Development, and Demonstration (RD&D) of cleanup technologies and hazardous waste minimization.

RD&D efforts are coordinated by an Installation Restoration Technology Coordinating Group (IRTCG) which consists of representatives from each component. The IRTCG encourages improved communication among the components to ensure the most effective possible use of limited RD&D funds. In addition, a DoD/EPA/DOE working group established in 1985 addresses the cost of hazardous waste cleanups, evaluates innovative technology needs, and develops a coordinated approach to these efforts.

The following examples of recent RD&D projects demonstrate the progress made by DoD and illustrate the potential benefits of well-directed research work.

Composting of Explosives-Contaminated Soil

A full-scale pilot demonstration is underway at Umatilla Army Depot, OR, to optimize the composting of explosives-contaminated soils. Tests are being conducted to reduce treatment time, identify different compost amendments, and find the least expensive materials to add to the compost system. A mechanical composter, approved for use with explosives-contaminated soil, has been procured and will be used in comparison tests with static pile composting.



The explosives-contaminated soil composting system is being used at Umatilla Army Depot as part of a pilot RD&D program.

Ground Water Modeling

The Air Force Institute of Technology's School of Civil Engineering and Services has made significant changes to a contaminant transport model used in IRP activities to study ground water contamination. The new model includes key physical mechanisms that were omitted from the original model as a result of mathematical simplifications. It can provide more accurate outputs for given ground water conditions and parameters. The model is currently in use at Tyndall AFB.

Depot Hazardous Waste Minimization (HAZMIN) Technology

DoD depot operations involving equipment maintenance generate hazardous waste as the result of painting, paint removal, cleaning, and plating processes. New technologies to decrease the amount of waste produced are needed because of the high cost, future liability, and potential increased restrictions on current treatment and disposal methods. To achieve these objectives, the Army is evaluating several measures, including using high-efficiency paint application systems to decrease air emissions, extending the bath lives of chemical paint stripping formulations by filtration, and reclaiming and reusing plating solutions through the use of electrodialysis. These test programs are being conducted at Sacramento (CA), Letterkenny (PA), and Corpus Christi (TX) ADs.

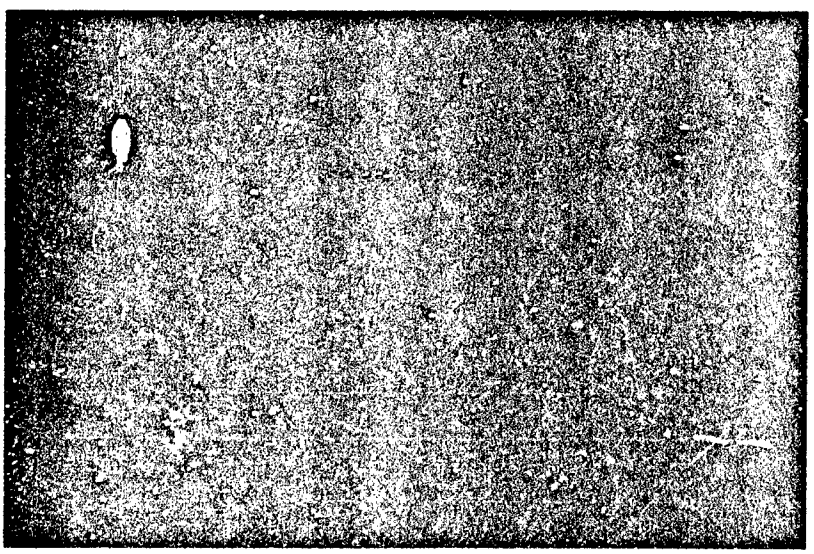
In Situ Field Bioindicator Systems

The Navy currently has no reliable system that can be used to routinely monitor and quantify environmental impacts at contaminated sites. To better assess such impacts on the marine environment and establish a clear cause-and-effect relationship with hazardous wastes of concern, the Navy is developing a system to allow physical and chemical measurements to be conducted simultaneously with measurements of biological response in the field (in situ). The system is planned for use in a variety of environments to address various Navy environmental problems.

In Situ Vitrification

In situ vitrification (ISV) is a thermal process that converts contaminated soil and waste into a durable product containing glass in crystalline phases. In this process, the soil is heated to a molten stage and allowed to cool to the final vitrified product. ISV is designed to retain or immobilize heavy metals, other organics, and radionuclides in the glass structure and to destroy or capture organics in an off-gas treatment system.

Bench- and pilot-scale ISV tests were conducted at Arnold AFB to test the removal of contaminants present in soils at the base fire training area. In this demonstration, inorganics were effectively retained within the melt and 89 percent of the organics in the soil were destroyed, with an overall destruction and removal efficiency of 99 percent. A full-scale remediation at Arnold AFB is scheduled to begin in 1991.

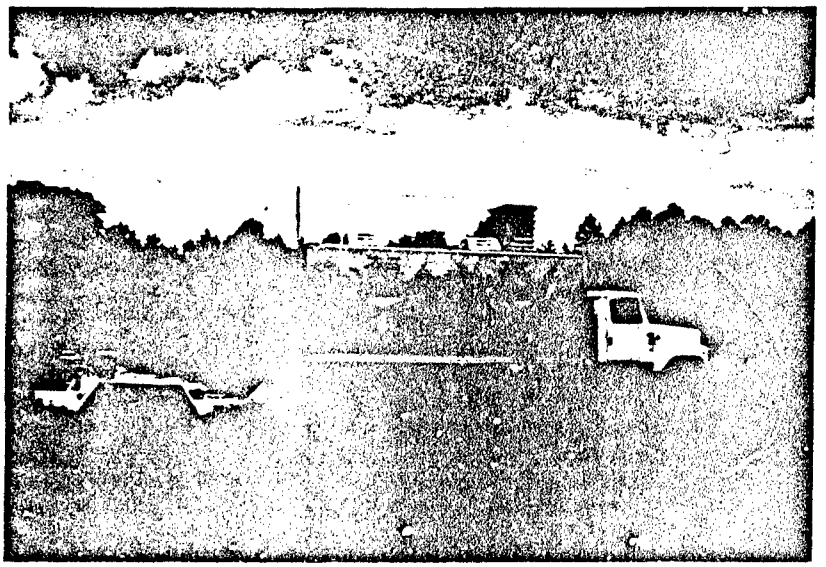


Considerable efforts are being expended in developing improved models for predicting the movement of contamination in ground water.

Site Characterization and Analysis Penetrometer System

The Army has developed a state-of-the-art Site Characterization and Analysis Penetrometer System (SCAPS) for use in mapping areas of soil and ground water contamination. The SCAPS is mounted on a uniquely engineered truck designed with protected work spaces to allow access to toxic and hazardous sites. The SCAPS screening penetrometers are equipped with sensors that can determine physical and chemical characteristics, strength, electrical resistivity, and spectral properties of soils.

During initial field testing performed in July through September 1990, the SCAPS equipment successfully delineated petroleum, oil, and lubricant contaminated zones at Jacksonville Naval Air Station and Tyndall AFB. Major development efforts are currently being directed toward the production of sensors capable of detecting solvents and hydrocarbon products at low levels, explosives wastes, and toxic and hazardous metal wastes. The goal is to produce sensor systems that respond rapidly to the presence of specific contaminants at low levels in soil. This effort is being jointly funded by the Army, Navy, and Air Force.



The Site Characterization and Analysis Penetrometer System allows rapid collection of samples and exploration of subsurface conditions at contaminated sites.

Toxicology Demonstration

Three sites at the Naval Air Station, Whidbey Island, are being investigated for toxicological impacts on wildlife and the environment. The study is being conducted by the Institute of Wildlife and Environmental Toxicology at Clemson University, where analytical samples collected from the ongoing field work are being analyzed. Radio transmitters have been attached to one adult female and three juvenile Northern Harriers to document feeding and foraging activities. Heron nestlings have also been identified and colony breeding and nesting activities are being monitored. A program review and workshop was conducted in August 1990.

Fluidized Bed Paint Stripper/Degreaser

The Army is evaluating the feasibility of using a heated fluidized bed of aluminum oxide to remove paint and grease from tactical equipment parts at maintenance depots. Production scale testing is being conducted at Red River (TX) and Letterkenny (PA) ADs. The fluidized bed system can substantially reduce the generation of hazardous waste and provide a safer work environment. Close coordination is being maintained with the Air Force and Navy during this test program.

Hot-Gas Decontamination

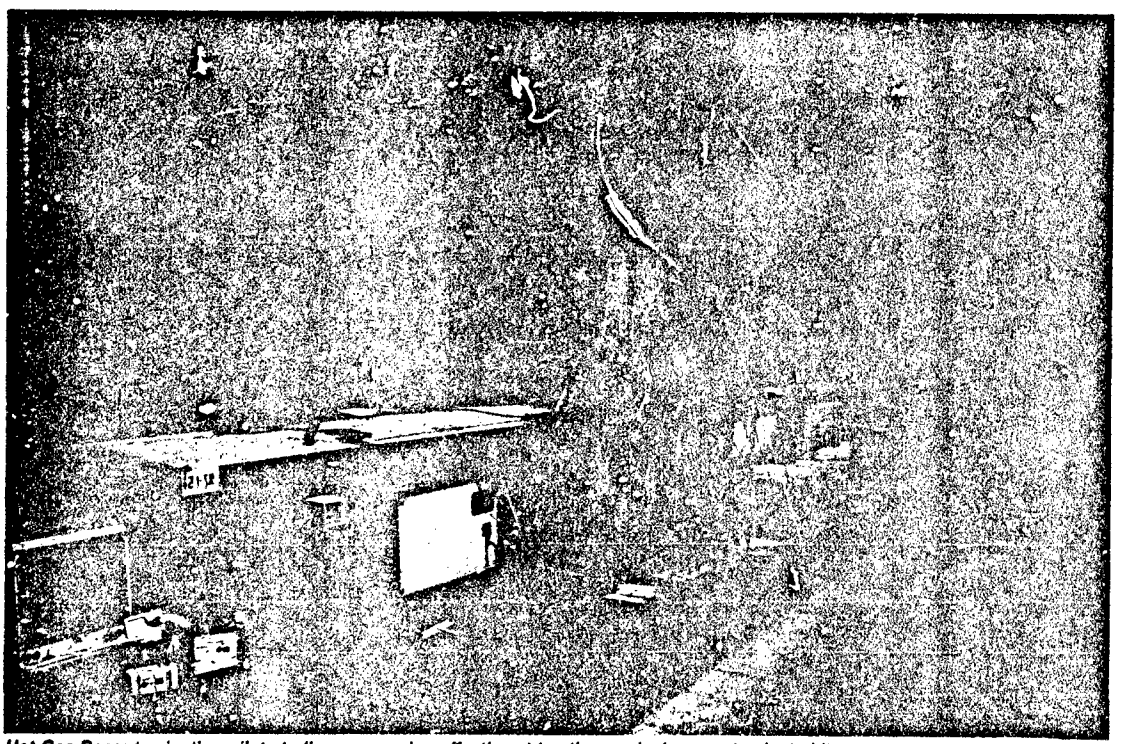
The U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) conducted a pilot study to determine the operating conditions required to effectively decontaminate explosives-contaminated equipment. Previous pilot studies showed that structural components can be decontaminated using a heated gas to thermally decompose or volatilize explosives, with subsequent incineration of the off-gases. The compounds evaluated in this study were trinitrotoluene (TNT) and ammonium picrate. Test items included piping, motors, powder boxes, and sewer lines. The hot-gas process was effective in treating items contaminated with TNT and ammonium picrate.

USATHAMA is evaluating the process to determine its effectiveness on items contaminated with chemical agents and other energetic and pyrotechnic materials.

Hydroblasting Wastewater Recycling

The Naval Civil Engineering Laboratory conducted field tests of a recycling system to reduce the volume of hydroblasting wastewater generated at the Naval Shipyards. Hydroblasting uses a sodium nitrate solution to remove the soft deposits on boiler tubes and other parts of ship boilers.

Field testing showed that hydroblasting wastewater can be recycled nine times without adversely affecting boiler tube cleaning operations, potentially reducing wastewater generation by 90 percent and resulting in a 2.7 million gallon reduction in wastewater generation at Naval Shipyards. Associated disposal costs can be reduced by almost $8 million with system implementation and the remaining 10 percent of the wastestream treated to meet sewer discharge requirements. A portable hydroblasting wastewater recycling unit is scheduled for implementation testing at Pearl Harbor Naval Shipyard in 1991. The technology will then be available to other Naval Shipyards and Shore Intermediate Maintenance Activities.



Hot-Gas Decontamination pilot studies are proving effective at treating explosives-contaminated items.

Agricultural Soil Amendments from Wastes

The Army, in coordination with EPA, Region IX, California Department of Health Services, and California Regional Water Quality Control Board, has conducted an Engineering Evaluation/Cost Analysis (EE/CA) evaluating the use of zinc-laden sediments from the Riverbank Army Ammunition Plant (RBAAP) as an agricultural soil amendment. Sediments with elevated levels of zinc have accumulated in the RBAAP evaporation/percolation ponds from past plant operations and waste treatment techniques.

Under the RBAAP IAG, the contaminated sediments are required to be addressed because of the presence of zinc in excess of the Total Threshold Limit Concentration (TTLC) criteria, as defined under Title 22 of the California Code of Regulations.

The EE/CA recommends the use of the zinc-rich sediments as a soil amendment on zinc-deficient agricultural land. When applied in agronomically appropriate amounts, the zinc in the sediments will enhance the agricultural productivity of the soils. Coincidentally, zinc deficiency is by far the most important micronutrient problem in California soils. Specifically, agricultural soils in the Riverbank area, and extending throughout the areas of eastern Stanislaus and eastern Merced Counties and southern San Joaquin County, are considered to be among the most zinc-responsive soils in the State.

Implementation of this removal and soil amendment action, scheduled for 1991, complies with both the letter and the spirit of the NCP by "promoting treatment versus nontreatment options and use of innovative technologies." Use of the sediments as a soil amendment will both remediate the contaminated site and provide a beneficial source of critical plant nutrients to enhance the productivity of the farmland to which it will be applied.

Antifreeze Recycle/Substitution

A study has been initiated by DLA to evaluate the substitution of antifreeze. Antifreeze is not regulated as a hazardous waste under RCRA, but is regulated by some states. The study includes screening possible alternative materials and evaluating three commercial recycling systems. It is intended to reduce the large quantities of antifreeze waste costs associated with waste disposal and material purchase costs.

Integrated Risk Assessment Demonstration

Estimating the risk posed by contaminated marine sediments based on laboratory chemical analyses only has proven inadequate. To predict the environmental impact without overestimating or underestimating the scope of remediation, an integrated risk assessment that incorporates biological assessment techniques with chemical techniques may be the best approach.

This demonstration will support two programs, including the assessment of the Aquatic Hazardous Waste Site at the Naval Air Station North Island and the monitoring of contaminated sediments at the Naval Station, San Diego. It will integrate existing techniques at these two sites to provide the Navy with a multidimensional approach to assess the chemical and biological implications of contaminants in marine sediments. Standard protocols will be developed for risk assessments and data interpretations.

Training of DoD Personnel in DERP Activities

The Defense Environmental Restoration Program requires a team effort to complete effectively its varied and complicated tasks. This is especially true in the IRP portion of the program. DoD has implemented training programs so that personnel can effectively manage various aspects of the cleanup process. The following are examples of courses of instruction provided in FY 90.

Health and Safety Training

DoD personnel who may be exposed to hazardous substances through their work in the IRP are routinely provided training regarding safe operating practices while working in areas of potential contamination, use of personal protective equipment, and the operation of contaminant monitoring systems. This training fulfills the requirements of the Occupational Safety and Health Act and helps assure the safety of DoD personnel working at IRP sites.

DLA DERP Training

During FY 90, DLA personnel participated in a variety of training programs to improve their effectiveness in managing DERP. Several DLA environmental officers attended EPA courses on RI/FS procedures and DoD-sponsored courses on DPM use. The DLA Office of Installation Services and Environmental Protection FY 90 conference included several blocks of instruction on the DERP. All DLA environmental officers attended these sessions.

DERP Training of USACE Personnel

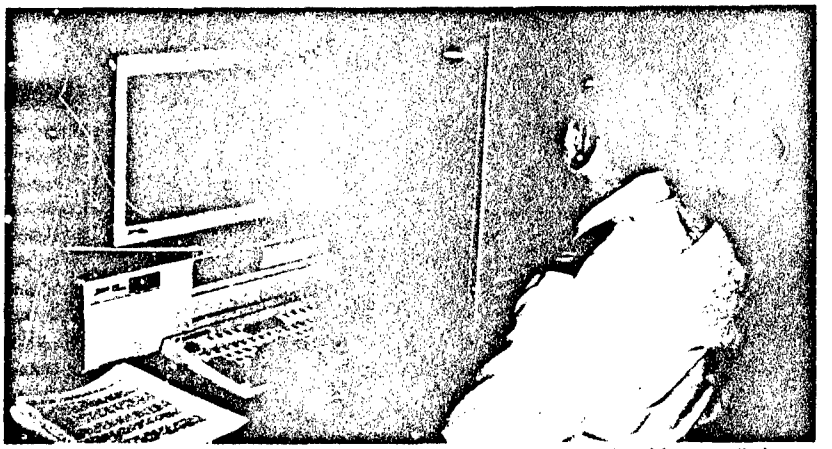
USACE is conducting response activities under both the FUDS and IRP portions of DERP. Courses to meet training needs are taught by inhouse USACE instructors, USEPA contractors, and contractors under the sponsorship of the Proponent Sponsored Engineer Corps Training (PROSPECT) Program. These courses are designed to enhance the technical skills needed to accomplish the hazardous waste mission. Topics include environmental laws and regulations, safety and health for hazardous waste sites, air surveillance for hazardous materials, risk assessment guidance, hazardous materials treatment technology, ground water investigations, sampling for hazardous materials, and radiation safety. During FY 90, 629 USACE employees involved in DERP successfully completed these courses.



DoD personnel receive the health and safety training needed to meet OSHA requirements.

DPM Training

To prepare remedial project managers for scoring sites for the FY 91 program, DoD developed an intensive two-day DPM training class. The class includes explanations of the model components, data input requirements, and hands-on scoring experience using the automated DPM. Approximately 150 DoD personnel attended classes held in various locations throughout the United States in FY 90. These personnel scored nearly 300 sites where remedial design/action is planned for FY 91.



DPM training prepares IRP project managers to score sites being considered for remediation.

Defense Environmental Restoration Training

In late FY 90, a contract effort was initiated to study the full spectrum of training requirements in DERP. The first phase calls for a needs assessment of all key individuals involved in DERP activities. Particular attention is being given to installation commanders, directors of engineers and housing, environmental coordinators, onsite workers, and DERP project management officers. Additional efforts include identifying training that currently exists that can be directly or indirectly used to meet DoD's needs. Follow-on work will include developing and testing a project manager's course for new employees working within the Army system.

Environmental Law for the Non-Lawyers

The Navy developed and sponsored this course for personnel who are involved in the IRP and work in the environmental field. As a tool to improve comprehension of the laws and regulations that potentially impact remedy selection and implementation, the course is particularly relevant to decisionmakers involved in the remediation process. Topics included: CERCLA; RCRA; SARA; the Historic Site Preservation Act; the Clean Air Act; the Endangered Species Act; the National Environmental Policy Act; fiscal and contracting laws pertinent to environmental issues, an introduction to law, legal research, and civil procedure; sovereign immunity; enforcement mechanisms; and personal liability.

IRP Training of Air Force Personnel

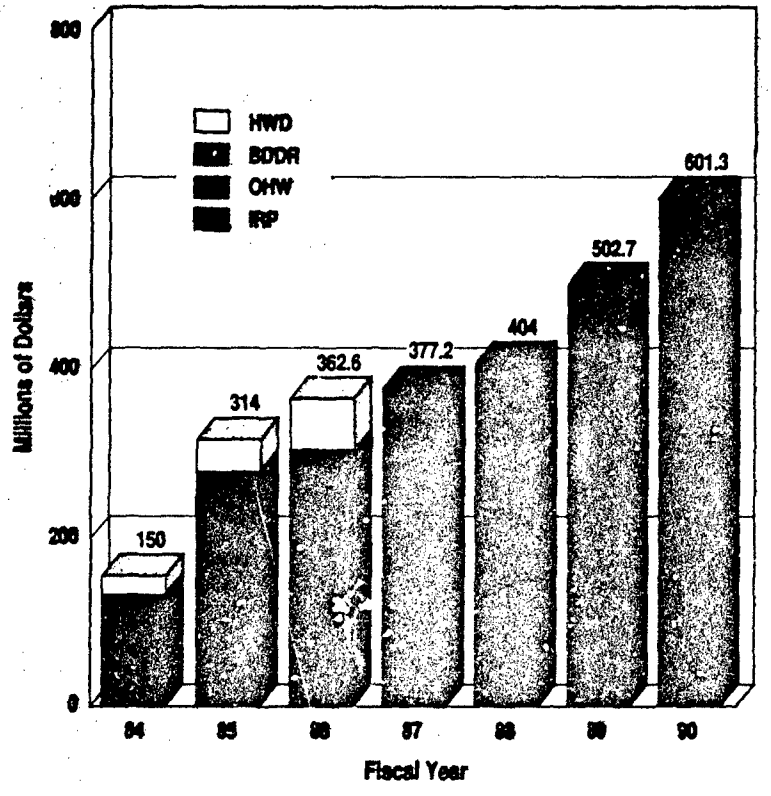
An installation restoration course offered by the Air Force Institute of Technology at Wright-Patterson AFB, Dayton, Ohio has proven very successful. More than 200 engineers, lawyers, public affairs personnel, and bioenvironmental engineers have been trained. This course provides an overview of Air Force policy and management guidance, hydrogeology, community and regulatory relationships, interagency agreements, and cleanup case histories. The course is offered four times a year and it is anticipated that over 300 individuals will be trained in FY 91.

DERP Training of High-Level Personnel

In the spring of 1990, the Air Force established an environmental course for their commanders and general officers. This intensive one-week course challenges senior leadership to become the drivers for preparing schedules for cleaning up sites on their installations, developing a team approach with regulators for site cleanup, and establishing a working relationship with community leaders. This course will be offered four times in FY 91. To date, more than 60 senior leaders have attended the course and it is anticipated that over 100 individuals will attend in FY 91.

Program Funding

In FY 84, Congress consolidated and expanded DoD programs to clean up hazardous waste in a separate appropriation entitled the Defense Environmental Restoration Account (DERA), under the Defense Appropriations Act. This has allowed the Department to accelerate the work and add research and other components to DERP. More than 84 percent of DERA funds have been allocated to the IRP since FY 84. In FY 90, 96 percent was expended in the IRP portion of the program. This heavy emphasis is expected to continue in FY 91 because of the growth in these high-priority requirements. The FY 91 DoD Authorization Act provides $1.1 billion in DERA funding.



The Department has estimated the total cost of future DoD IRP activities at installations and formerly used properties to be $9 billion (baseline) to $14 billion (adjusted) in FY 87 dollars. The bulk of this funding is for the more costly RD/RA cleanup phase of the program.

The baseline cost estimate was developed from information on site cleanup requirements that is currently available. The adjusted cost estimate includes projections for sites where extensive data collection is underway. Once this work is complete, a better definition of the sites that actually require cleanup will be possible.

Cleanup standards also remain uncertain. Some agreements for remedial action at NPL installations have not been reached with EPA and state agencies. DoD will review the total program cost estimate periodically as the program matures and more information becomes available.

Appendix A
Information Requested by the Superfund Amendments and Reauthorization Act

This Appendix to the Annual Report provides information requested in Section 120(e)(5) of the Superfund Amendments and Reauthorization Act of 1986 (SARA), which applies to all Federal Facilities, and Section 211 of SARA (codified at 10 USC 2706), which pertains to the Defense Environmental Restoration Program.

Federal Facilities Reporting Requirements

Section 120(e)(5) of the SARA legislation specifies that each Federal department or agency shall annually report on the following items:

- A report on the progress in reaching interagency agreements.
- The specific cost estimates and budgetary proposals involved in each interagency agreement.
- A brief summary of the public comments regarding each proposed interagency agreement.
- A description of the instances in which no agreement was reached.
- A report on progress in conducting investigations and studies under Paragraph (1). [Paragraph (1) discusses the timing of RI/FS work at NPL sites].
- A report on progress in conducting remedial actions.
- A report on progress in conducting remedial actions at facilities which are not listed on the National Priorities List.

In addition, SARA specifies "With respect to instances in which no agreement was reached within the required time period, the department, agency, or instrumentality filing the report under this paragraph shall include in such report an explanation of the reasons why no agreement was reached. The annual report required by this paragraph shall also contain a detailed description on a State-by-State basis of the status of each facility subject to this section, including a description of the hazard presented by each facility, plans and schedules for initiating and completing response action, enforcement status (where appropriate), and an explanation of any postponements or failure to complete response action. Such reports shall also be submitted to the affected States."

Appendix B contains a description of each installation final-listed on the NPL (no installations were proposed for listing on the NPL as of September 30, 1990). Each description summarizes the background of the installation, including the types of environmental hazards present, the status of IAG negotiations, the status of IRP response actions, and schedules for initiating and completing those response actions. The information in Appendix B addresses the requirements of the preceding paragraph. Appendix E

describes formerly used defense sites (FUDS) that are listed on the NPL. Appendix B, Table B-1, catalogs DoD facilities that are final-listed on the NPL and Appendix E, Table E-1, catalogs FUDS that are final-listed on the NPL. The following paragraphs provide detailed responses to the SARA information requirements.

Progress in Reaching Interagency Agreements

During FY 90, efforts to complete IAGs in compliance with SARA, Section 120 were accelerated through workshops held with DoD, EPA, and state representatives as well as diligent work by the components. These IAGs received a high priority because they establish comprehensive installation-specific arrangements for proceeding with DoD's waste cleanup activities. It is DoD's goal to have an agreement in place for all installations final-listed or proposed for listing on the NPL. Extensive field negotiations took place in FY 90 with EPA and state authorities. As a result, a firm foundation for the agreement process has been built allowing DoD components to enter into consistent, workable agreements nationwide.

A significant FY 90 accomplishment was the signing of IAGs for 31 installations listed on the NPL, bringing the total number of signed IAGs to 51. The installations with finalized agreements are shown in Table A-1. West Virginia Ordnance Works also is included on the table because it has been funded as an active Army installation. The large increase in signed agreements can be attributed to the extensive model language agreement and guidance developed in FY 88, coupled with an all-out effort by the components to negotiate agreements. In FY 90, the DoD components continued to hold workshops for their field personnel on the IAG model language and other aspects of negotiating IAGs.

Interagency Agreement Cost Estimates and Budgetary Proposals

DERP funding is discussed in the body of this report. The estimate for total program funding is based on existing budget documentation, including program cost data from the individual DoD component IRPs, and consideration of existing Superfund cost data. Table A-1 lists the installations with signed IAGs along with the estimated expenditures to-date and the estimated additional cost to implement each IAG. Total IRP costs associated with signed IAGs is $3.27 billion. These costs include past IRP costs along with future budgetary estimates for continued investigation and cleanup of the sites at installations where an IAG has been finalized.

Additional details of past expenditures at all DoD NPL installations are shown in Appendix B, Table B-1. That table includes additional funding data for IRAs, RAs, and RI/FSs.

Public Comments Regarding Proposed Interagency Agreements

As of September 30, 1990, public comments had been received on 5 of the 31 IAGs completed in FY 90. These comments are summarized below.

Brunswick Naval Air Station, Brunswick Maine

Comments were received from one citizen and the State of Maine. The citizen's comments were resolved in discussions and did not result in a change to the IAG. The State concerns were resolved through amendments to the IAG, and the State became a party to the agreement in October 1990.

Table A-1
Installations Covered by Signed IAGs as of September 30, 1990

Location	Through FY 90 $(K)	Estimated Additional Cost to Implement IAG $(K)
ARMY		
Aberdeen PG, MD (2)*	19,806	208,740
Alabama AAP, AL	11,143	17,240
Anniston AD, AL	6,422	4,863
Cornhusker AAP, NE	11,964	13,016
Ft. Lewis, WA (2)*	7,093	20,263
Ft. Ord, CA	9,205	39,807
Ft. Riley, KS	1,046	4,422
Iowa AAP, IA	3,501	4,434
Joliet AAP, IL (2)*	9,703	12,687
Lake City AAP, MO	26,259	32,848
Letterkenney AD, PA (2)*	12,065	7,527
Lone Star AAP, TX	3,419	6,002
Louisiana AAP, LA	43,969	1,076
Milan AAP, TN	4,479	8,701
Riverbank AAP, CA	8,013	4,035
Rocky Mt. Arsenal, CO	315,000	696,734
Sacramento AD, CA	11,936	29,306
Savanna ADA, IL	10,635	3,845
Sharpe AD, CA**	11,823	5,154
Tobyhanna AD, PA	3,647	5,612
Twin Cities AAP, MN	27,868	17,865
Umatilla AD, OR	9,967	31,351
Weldon Spring Former Army Ordnance Works, MO***	16,810	183,190
West Virginia Ordnance, WV****	12,397	12,368
Army Total	**666,183**	**1,361,104**
NAVY		
Bangor NSB, WA (2)*	6,171	10,868
Brunswick NAS, ME	5,207	7,370
Moffett NAS, CA	23,869	27,905

*Both NPL listings for this installation are covered under one IAG.
**Transferred to DLA July 1990.
***The dollars listed include money spent at Weldon Spring Quarry/Plant/Pits (USDOE/Army), a third party site.
****A former site, not listed as a federal facility, but funded as a federal facility.

Table A-1

Installations Covered by Signed IAGs as of September 30, 1990

Location	Through FY 90 $(K)	Estimated Additional Cost to Implement IAG $(K)
Navy (Continued)		
NADC (8 Waste Areas) Warminster, PA	864	4,776
NAEC Lakehurst, NJ	6,060	21,634
NAS Whidbey Field, WA (2)*	5,022	29,901
NUWES (4 Waste Areas) Keyport, WA	4,313	21,500
Treasure Island NS-Hunters Point Annex, CA	21,500	97,499
Navy Total	**73,026**	**241,453**
AIR FORCE		
AFP #4 (General Dynamics), TX	12,630	32,370
Castle AFB, TX	12,700	77,300
Dover AFB, DE	8,090	20,910
Edwards AFB, CA	21,000	32,440
Fairchild AFB (4 Waste Areas), WA	4,260	45,740
George AFB, CA	11,900	5,150
Griffiss AFB, NY	7,310	92,690
Luke AFB, AZ	2,600	1,500
March AFB, CA	4,080	80,920
Mather AFB, CA	15,040	13,220
McChord AFB (Wash Rack/Treatment Area), WA	10,600	21,100
McClellan AFB, CA	61,000	109,500
Norton AFB, CA	12,100	43,180
Robins AFB (Landfill #4/Sludge Lagoon), GA	15,570	28,430
Tinker AFB (Soldier Creek/Building 3001), OK	20,100	49,600
Travis AFB, CA	7,050	38,000
Twin Cities AFRB (Small Arms Range Landfill), MN	2,490	2,910
Williams AFB, AZ	5,400	14,810
Air Force Total	**233,920**	**709,770**
DEFENSE LOGISTICS AGENCY		
DGSC, VA	4,930	9,940
Ogden Defense Depot, UT	4,340	33,590
DLA Total	**9,270**	**43,530**
DoD TOTAL	**914,399**	**2,355,857**

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Moffett Field Naval Air Station, Sunnyvale, California

In response to comments received, the IAG for Moffett Field NAS was amended in FY 90 to include schedules for implementing contaminant source controls at sites on the installation.

Conhusker Army Ammunition Plant, Hall County, Nebraska

Comments unrelated to the IAG were received. No revision to the IAG is required.

Weldon Spring Ordnance Works, St. Charles County, Missouri

One comment was received from the State that resulted in revising the IAG site description to reflect the NPL description more accurately.

McClellan Air Force Base, Sacramento County, California

Only one public response was received regarding the proposed McClellan AFB IAG. That response, provided by the McClellan Ecological Seepage Situation, contained 65 identifiable comments. In general, these comments questioned the appropriateness and legality of proposed IAG language, requested the inclusion of additional public participation requirements, and stated that funds to be provided the State under the terms of the DSMOA were inadequate. The EPA, state of California and Air Force issued a joint response addressing all of the comments. Six minor revisions were made to the IAG in response to certain comments. The remainder of the comments were determined to require no modification of the IAG.

Instances Where No Agreement Was Reached

There are no instances where DoD has failed to reach an agreement within the required time period.

Remedial Investigation/Feasibility Study (RI/FS) Progress

Section 120(e)(1) of SARA specifies that RI/FS work must be initiated at sites within 6 months of listing on the NPL. RI/FS work has been started at 81 of the 89 DoD installations final-listed on the NPL. RI/FS start dates are shown in the Installation Narratives in Appendix B.

Remedial Action Progress

Final RD/RA activities based on RI/FS recommendations, and under the terms of an IAG, have been initiated at one DoD NPL installation. Section 120(e)(2) of SARA requires that on-site remedial action must be initiated within 15 months of completion of an RI/FS and the issuance of a ROD at an NPL facility. Only two RODs were completed by the end of 1989. These RODs were for Concord Naval Weapons Station (CNWS) and West Virginia Ordnance Works (WVOW). Remedial action at WVOW was initiated in 1988. In 1990, CNWS was deleted from the proposed NPL.

A total of four RODs were signed for installations during FY 90. These four installations include Tinker AFB, Ogden Defense Depot, Fort Lewis, and WVOW. (The FY 90 ROD for WVOW covers a different Operable Unit than did the facility's FY 88 ROD.) DoD anticipates beginning remedial actions at these sites within the required deadline.

Response actions other than final RD/RA activities have been undertaken at 68 DoD installations with sites on the NPL. This work involves several types of Removal Actions and/or IRAs. These actions are summarized in Table A-2.

Table A-2
Summary of NPL Installation Activities

Type of Activity	Number of Activities
Alternate Water Supply/Treatment	29
Incineration	6
Site Treatment/Remediation	55
Decontamination	21
Waste Removal	63
Ground Water Treatment	46
Long-term Monitoring	49
TOTAL	269

Note: Some installations have more than one type of action underway.

Additional information on RD/RA initiatives at DoD NPL installations is provided in the narratives in Appendix B.

Remedial Actions at Non-NPL Facilities

Remedial actions have been initiated at 1,487 DoD sites (including sites at NPL installations). These include Removal Actions, IRAs and long-term monitoring. Of these, 296 had been completed by the end of FY 90.

Defense Environmental Restoration Program Reporting Requirements

Section 211 of SARA (10 USC 2705) specifies that the Annual Report to Congress shall include:

"(1) A statement for each installation under the jurisdiction of the Secretary of the number of individual facilities at which a hazardous substance has been identified."

"(2) The status of response actions contemplated or undertaken at each such facility."

"(3) The specific cost estimates and budgetary proposals involving response actions contemplated or undertaken at each such facility."

"(4) A report on progress on conducting response actions at facilities other than facilities on the National Priorities List."

Appendix C summarizes the information requested in items 1, 2, and 4 above. It denotes the number of sites undergoing each step of the IRP at any one installation. The response to item 3 above is found in the Program Funding section of this report.

Appendix C, Table C-1 provides an overall summary of the status of IRP work at installations on a state-by-state basis. Table C-2 provides a detailed listing of IRP status for each installation in the program. For each IRP phase listed in Tables C-1 and C-2, four status categories exist: "C," "U," "F," or "N." Category "C" represents the total number of sites for which that particular study or action has been completed. The "U" category denotes the number of sites having that particular study or action underway. The "F" category shows the number of sites scheduled to have that study/action performed in the future. "N" indicates that no further action was recommended for the site at the completion of the particular IRP phase.

Facilities Having Identified Hazardous Substances

The universe of sites at DoD installations in the IRP is summarized on page 7 of this report and explained further in Appendix C. Referring to these tables, a PA is a Preliminary Assessment of an installation to determine if a site may pose hazards to public health or the environment, and may require further study. An SI is a Site Inspection of an installation, which follows a PA and consists of limited sampling and analysis to determine the existence of actual site contamination. The information collected in the SI is used to score the site with the HRS to determine whether a site should be placed on the NPL. The RI/FS involves quantitative sampling and analysis to identify those sites that are contaminated, the types of contaminants present and their levels, and whether the contamination is causing or contributing to any ground or surface water pollution. RD is an engineering phase following the ROD in which technical drawings and specifications are developed for the subsequent remedial action at a site. RA is the actual construction or implementation phase that follows the design of the selected cleanup alternative for a site.

Confirmation of which of the 17,482 potential sites are actually contaminated and are presenting a health or environmental risk requires completion of an RI. Because RIs are still underway at many sites, the absolute number of sites with hazardous substances cannot be determined. A minimum can be calculated by assuming that all sites with RD/RA scheduled, underway at this time or completed have been confirmed as having identified hazardous waste that may present a risk. The present estimate of confirmed hazardous waste sites in DoD is 4,059, the sum of RA work completed, underway, or planned for the future as provided on page 7.

Status of Current or Contemplated/Undertaken Response Actions

The number of response actions undertaken at any one installation is indicated by the sum of the numbers in the "C" and "U" categories of each response action type listed in the tables in Appendix C. Similarly, the "F" category under each type of response action indicates the number of contemplated (future) response actions for each installation. The "N" category indicates that no further action is recommended under the specified response action type. Table C-3 summarizes for each DoD service component the response action status as of September 30, 1990.

Table C-3 shows that 296 cleanups (i.e., removals, interim responses, and remedial actions) have been completed. This includes 135 Army, 31 Navy, 127 Air Force, and 3 DLA actions at IRP sites. In addition, there are 1,191 site actions underway with 2,572 scheduled for the future.

Response Action Cost Estimates and Budgetary Proposals

In FY 90, the Congress appropriated $601.3 million for the DERP, of which $578.5 million was spent on the IRP. These funds were used primarily to expand and accelerate studies and remedial actions at more than 17,000 individual sites. The Program Funding section of this report provides additional funding information.

Response Action Progress at Non-NPL Facilities

DoD has continued to make progress during FY 90 in investigating all sites or facilities on DoD installations potentially contaminated with hazardous substances and cleaning up those sites that pose a threat to human health and the environment, regardless of whether they are on the NPL. A total of 17,482 sites on 1,855 military installations are currently included in the IRP. Of the total number of sites, 2,974 are sites associated with facilities listed on the NPL. Facilities not listed on the NPL have a total of 14,508 sites in various stages of the IRP. RAs are ongoing at 705 sites on non-NPL facilities.

Appendix B provides data regarding IRP response actions at DoD facilities on the NPL. The listing in Appendix C, in addition to providing additional information on NPL sites, provides the status of work at non-NPL facilities.

Appendix B
DoD Installations on the NPL

This Appendix to the Annual Report summarizes information for each DoD installation listed on the NPL as of the end of FY 90 (no DoD installations were proposed for listing on the NPL as of the end of FY 90). Table B-1 provides key data for the facilities listed on the NPL. Narrative summaries of each DoD installation listed on the NPL are provided beginning on page B-8.

As of September 30, 1989, 89 DoD installations were listed on the NPL. Two separate areas of six of these 89 installations are listed twice on the NPL, bringing the total number of DoD NPL listings to 95. In addition, West Virginia Ordnance Works, a former DoD-owned facility, has been included in this Appendix because the Army is remediating the facility as if it were an active Army site.

With the exception of the Concord Naval Weapons Station, which was deleted from the NPL, all of the sites proposed for the NPL in 1989 were final-listed in 1990.

IAG status in Table B-1 reflects the status as of September 30, 1990. The status abbreviations used are:

NS – Negotiations Not Started
IN – Negotiations Initiated
FIN – Finalized (signed).

The IAG year indicated in these tables is the calendar year in which the IAG was (or is expected to be) signed. An "(e)" after the year denotes an estimate.

Table B-1

DoD Installations on the National Priorities List (NPL) [illegible]

Installation	State	HRS Score	Removal Action/Interim Remedial Action Year (Latest)	Removal Action/Interim Remedial Action $(K) Thru FY 90	RI/FS $(K) Thru FY 90	IAG Status	IAG Signing Year
ARMY							
Aberdeen PG (Edgewood Area)	MD	53.57	90	7,971	11,132	FIN	90
Aberdeen PG (Michaelsville Landfill)	MD	31.09	—	0	350	FIN	90
Alabama AAP	AL	36.33	88	940	10,200	FIN	89
Anniston AD (Southeast Industrial Area)	AL	51.91	90	194	6,229	FIN	90
Cornhusker AAP	NE	51.13	88	9,454	2,531	FIN	90
Fort Devens	MA	42.24	—	0	1,941	IN	91(e)
Fort Devens Sudbury Training Annex	MA	35.57	88	0	2,098	NS	—
Fort Dix (Landfill Site)	NJ	37.40	88	1,497	2,277	IN	91(e)
Fort Lewis (Landfill No. 5)	WA	33.79	88	0	3,409	FIN	90
Fort Lewis Logistics Center	WA	35.48	89	245	685	FIN	90
Fort Ord	CA	42.24	90	1,165	4,066	FIN	90
Fort Riley	KS	33.79	90	739	307	FIN	90
Fort Wainwright	AK	42.40	90	450	2,269	NS	—
Iowa AAP	IA	29.73	90	1,923	1,578	FIN	90
Joliet AAP (LAP Area)	IL	35.23	—	0	2,035	FIN	89
Joliet AAP (Mfg Area)	IL	32.08	85	1,496	964	FIN	89
Lake City AAP (Northwest Lagoon)	MO	33.82	90	13,540	12,714	FIN	89
Letterkenny AD (PDO Area)	PA	37.51	89	286	2,789	FIN	89
Letterkenny AD (Southeast Area)	PA	34.21	—	1,321	6,837	FIN	89

(Continued)

Table B-1
DoD Installations on the National Priorities List (NPL)

Installation	State	HRS Score	Removal Action/Interim Remedial Action: Year (Latest)	Removal Action/Interim Remedial Action: $(K) Thru FY 90	RI/FS: $(K) Thru FY 90	IAG: Status	IAG: Signing Year
ARMY (Continued)							
Lone Star AAP	TX	31.85	89	281	3,138	FIN	90
Longhorn AAP	TX	39.83	—	0	891	NS	—
Louisiana AAP	LA	30.26	90	39,762	4,207	FIN	89
Milan AAP	TN	58.15	84	0	4,470	FIN	89
Picatinny Arsenal	NJ	42.92	90	4,976	6,707	IN	91(e)
Riverbank AAP	CA	63.94	90	2,754	5,258	FIN	90
Rocky Mtn. Arsenal	CO	58.15	90	193,061	75,698	FIN	89
Sacramento AD	CA	44.46	90	6,602	5,336	FIN	88
Savanna ADA	IL	42.20	90	8,412	2,187	FIN	89
Schofield Barracks	HI	28.90	90	0	0	NS	—
Seneca AD	NY	35.52	89	957	433	IN	91(e)
Sharpe AD	CA	42.24	90	2,469	9,354	FIN	89
Tobyhanna AD	PA	37.93	90	1,599	1,972	FIN	90
Tooele AD (North Area)	UT	53.95	90	458	9,506	NS	—
Twin Cities AAP*	MN	59.16	90	8,600	19,268	FIN	87
Umatilla AD (Lagoons)	OR	31.31	90	8	9,959	FIN	89
Weldon Spring Former Army Ordnance Works**	MO	30.26	90	15,210	1,600	FIN	90

*Listed as New Brighton/Arden Hills, not as a federal facility.

**The dollars listed include money spent at Weldon Spring Quarry/Plant/Pits (USDOE/Army), a third party site.

(Continued)

Table B-1
DoD Installations on the National Priorities List (NPL)

Installation	State	HRS Score	Removal Action/Interim Remedial Action Year (Latest)	Removal Action/Interim Remedial Action $(K) Thru FY 90	RI/FS $(K) Thru FY 90	IAG Status	IAG Signing Year
ARMY (Continued)							
West Virginia Ordnance*	WV	35.72	90	10,659	1,738	FIN	89
NAVY							
Bangor NSB	WA	55.91	90	1,513	4,658	FIN	90
Bangor Ordnance Disposal	WA	30.42	90	Included above		FIN	90
Barstow MCLB	CA	37.93	90	315	1,749	IN	91(e)
Brunswick NAS	ME	43.38	90	240	4,967	FIN	89
Camp Lejeune Military Reservation**	NC	33.13	90	359	2,698	IN	91(e)
Camp Pendleton MCB	CA	33.79	90	67	2,366	IN	91(e)
Cecil Field NAS	FL	31.99	—	—	797	IN	91(e)
Davisville Naval CB Center	RI	34.52	90	96	1,620	IN	91(e)
El Toro MCAS	CA	37.43	—	—	241	IN	91(e)
Jacksonville NAS	FL	32.08	85	10	1,477	IN	91(e)
MCLB Albany	GA	44.65	90	276	1,422	IN	91(e)
Moffett NAS	CA	29.49	90	1,028	22,861	FIN	89
NADC Warminster (8 Waste Areas)	PA	57.93	90	61	506	FIN	90
NAEC Lakehurst	NJ	50.53	90	70	5,271	FIN	89
NAS Whidbey Island (Ault Field)	WA	47.58	90	96	4,926	FIN	90
NAS Whidbey Island (Seaplane Base)	WA	39.64	90	Included above		FIN	90

*A former site, not listed as a federal facility or included in the count of DoD installations, but funded as a federal facility.
**Once listed as Camp Lejeune Marine Corps Base

(Continued)

Table B-1
DoD Installations on the National Priorities List (NPL)

Installation	State	HRS Score	Removal Action/Interim Remedial Action Year (Latest)	Removal Action/Interim Remedial Action $(K) Thru FY 90	RI/FS $(K) Thru FY 90	IAG Status	IAG Signing Year
NAVY (Continued)							
NIROP Fridley	MN	30.83	90	2,757	2,679	IN	91(e)
NSG Sabana Seca	PR	34.28	90	7	516	IN	91(e)
NUWES (4 Waste Areas) Keyport	WA	32.61	90	169	4,144	FIN	90
Naval Weapons Station Earle (Site A)	NJ	29.65	90	0	666	IN	91(e)
New London SB	CT	36.53	90	1,983	1,770	IN	—
Newport NETC	RI	40.10	90	63	2,044	NS	—
Pensacola NAS	FL	42.40	90	2,026	1,924	IN	91(e)
Treasure Island NS - Hunters Point Annex	CA	48.77	90	2,745	18,303	FIN	90
Yuma MCAS	AZ	32.24	90	0	295	NS	—
AIR FORCE							
AFP #4 (General Dynamics)	TX	39.92	86	2,500	7,315	FIN	90
AFP PJKS	CO	42.93	—	106	153	IN	91(e)
Castle AFB	CA	37.93	89	2,221	6,313	FIN	89
Dover AFB	DE	35.89	86	760	6,425	FIN	89
Edwards AFB	CA	33.62	89	8,666	6,298	FIN	90
Eielson AFB	AK	48.14	89	1,156	5,238	IN	91(e)
Ellsworth AFB	SD	33.62		1,183	482	IN	91(e)
Elmendorf AFB	AK	45.91	89	2,125	1,533	IN	91(e)

(Continued)

Table B-1
DoD Installations on the National Priorities List (NPL)

Installation	State	HRS Score	Removal Action/Interim Remedial Action: Year (Latest)	Removal Action/Interim Remedial Action: $(K) Thru FY 90	RI/FS: $(K) Thru FY 90	IAG: Status	IAG: Signing Year
AIR FORCE (Continued)							
Fairchild AFB (4 Waste Areas)	WA	31.98	89	126	4,199	FIN	90
F.E. Warren AFB	WY	39.23	89	2,054	2,185	IN	91(e)
George AFB	CA	33.62	89	8,203	2,451	FIN	90
Griffiss AFB	NY	34.20	89	4,041	2,769	FIN	90
Hill AFB	UT	49.94	87	7,582	6,384	IN	91(e)
Homestead AFB	FL	42.40	87	1,003	2,530	IN	91(e)
Loring AFB	ME	34.49	89	1,216	4,453	IN	91(e)
Luke AFB	AZ	37.93	89	1,511	682	FIN	90
March AFB	CA	31.94	89	3,505	3,531	FIN	90
Mather AFB	CA	28.90	89	29	14,922	FIN	89
McChord AFB (Wash Rack/ Treatment Area)	WA	42.24	86	1,350	5,243	FIN	90
McClellan AFB	CA	57.93	89	30,328	21,137	FIN	90
Mountain Home AFB	ID	57.80	88	200	782	IN	91(e)
Norton AFB	CA	39.65	89	2,082	6,004	FIN	89
Otis ANG Base/ Camp Edwards	MA	45.92	89	2,458	12,029	IN	91(e)
Pease AFB	NH	39.42	89	3,300	4,714	IN	91(e)
Plattsburgh AFB	NY	30.34	86	20	4,731	IN	91(e)
Robins AFB (Landfill #4/Sludge Lagoon)	GA	51.66	87	3,735	10,918	FIN	89

(Continued)

Table B-1
DoD Installations on the National Priorities List (NPL)

Installation	State	HRS Score	Removal Action/Interim Remedial Action: Year (Latest)	Removal Action/Interim Remedial Action: $(K) Thru FY 90	RI/FS: $(K) Thru FY 90	IAG: Status	IAG: Signing Year
AIR FORCE (Continued)							
Tinker AFB (Soldier Creek/Building 3001)	OK	42.24	87	9,262	8,542	FIN	89
Travis AFB	CA	29.49	86	270	5,214	FIN	90
Twin Cities AFRB (Small Arms Range Landfill)	MN	33.62	87	437	1,437	FIN	89
Williams AFB	AZ	37.93	88	580	3,815	FIN	90
Wright-Patterson AFB	OH	57.85	87	8,476	11,905	IN	91(e)
DEFENSE LOGISTICS AGENCY							
DGSC Richmond	VA	33.85	—	0	4,870	FIN	90
Ogden Defense Depot	UT	45.10	88	646	3,534	FIN	89
Tracy Defense Depot	CA	37.16	89	1,700	4,757	IN	91(e)

Aberdeen Proving Ground (Edgewood Area and Michaelsville Landfill)

Edgewood and Aberdeen, Maryland



Service:	Army
Size:	72,518 Acres
HRS Score:	53.57 (Edgewood Area) 31.09 (Aberdeen Area)
Base Mission:	Develop and test equipment; Provide training
IAG Status:	Pre-ROD IAG signed March 1990
Action Dates:	PA/SI completed 1978; Placed on NPL 1990
Contaminants:	VOCs, arsenic, phosphates, napalm, UXO, nitrates, chemical agents
Funding to Date:	$19.81 million

Preliminary Assessment/ Site Inspection (PA/SI)

Water range areas, contaminated with large quantities of UXO and accessible to local boating during non-testing periods, present a potential safety problem. Off-base contaminant migration could affect four proposed state critical habitats (as defined by the Maryland Endangered Species Act) and a national wildlife refuge. The PA/SI identified eight areas of contamination and recommended three areas for preliminary survey and two for further monitoring. Large areas contaminated or potentially contaminated with UXO, chemical munitions, and manufacturing wastes were identified. Contamination of surface and ground waters was detected; therefore, four wells were removed from service due to VOC contamination. Contaminant migration through surface waters may occur at five sites. RCRA Facility Assessments (RFAs) completed under the RCRA Corrective Actions Permit in 1990 identified 319 solid waste management units (SWMUs). These SWMUs were combined into 13 study areas under an IAG with EPA signed March 10, 1990.

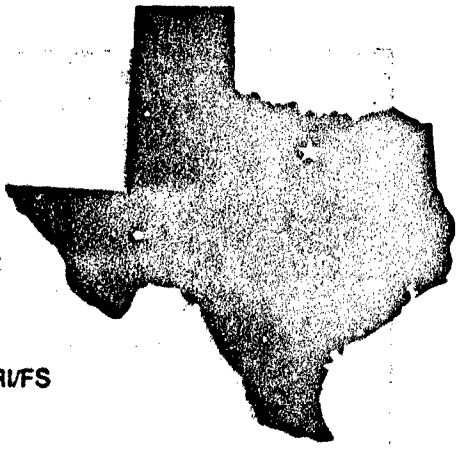
Remedial Investigation/ Feasibility Study (RI/FS)

Recent environmental investigations initially pursued under RCRA Corrective Actions Permits have been submitted to EPA as initial documents under the IAG. The investigations showed that high levels of hydrocarbons have been found in the ground water in four study areas. White phosphorus has been detected in the sediment and surface waters in one of the study areas. O Field, contaminated with large quantities of chemical and explosive materials, is a source of contaminant migration. Arsenic and trichloroaniline have been detected in surface waters. Ground water has been contaminated by VOCs. While no significant off-base migration has been reported from any of the study areas, small amounts of surface water contamination (VOCs) have been identified in on-post tributaries to the Chesapeake Bay. Resampling has confirmed original survey findings. The IAG will require that initial studies be revised into RI/FS efforts under CERCLA/ SARA.

Remedial Design/ Remedial Action (RD/RA)

Removal actions have been completed at three SWMUs. Eight additional removal actions are scheduled for completion in 1991. Proposed plans and RODs for O Field and the white phosphorous site study areas are scheduled for late 1990. Design for ground water cleanup at J Field and the Fire Training Area site are scheduled for late 1991.

Air Force Plant #4 (General Dynamics)
Fort Worth, Texas



Service:	Air Force
Size:	602 Acres
HRS Score:	39.92
Base Mission:	Manufacture aircraft and associated equipment
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	PA/SI completed 1984; Placed on NPL 1990; RI/FS scheduled for completion 1991
Contaminants:	Solvents, paint residues, spent process chemicals, PCBs, waste oils and fuels, heavy metals, VOCs, cyanide
Funding to Date:	$12.63 million

Preliminary Assessment/ Site Inspection (PA/SI)

Air Force Plant #4, owned by the government, is operated by General Dynamics. Approximately 13,000 people in the city of White Settlement rely on the aquifer underlying the base for drinking water. Twenty sites were studied and 10 were identified as potentially contaminated. Ground and surface water contaminants include di-, tri-, and tetrachloroethylene, ethylbenzene, toluene, methylene chloride, heavy metals, cyanide, and petroleum products.

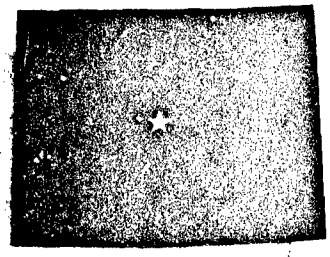
Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS was initiated in August 1986. Confirmation/quantification studies examined 21 sites and confirmed contamination of soil, surface, and ground water. Twelve sites were recommended for additional RI/FS study, and one site will undergo additional sampling. No further action was recommended for eight sites. The RI/FS will be completed in 1991.

Remedial Design/ Remedial Action (RD/RA)

Contaminated soil was excavated at four sites in 1986. Wells for the city of White Settlement are sampled quarterly by EPA with future monitoring planned. A ground water treatment system will be installed in 1991 to address contamination that originated from two spill sites. Long-term monitoring will begin in 1991.

Air Force Plant PJKS
Waterton, Colorado



Service: Air Force

Size: 464 Acres

HRS Score: 42.93

Base Mission: Research and development; Missile assembly; Engine testing

IAG Status: Initiated and expected to be signed 1991

Action Dates: PA/SI completed 1986; RI/FS initiated 1986; Placed on NPL 1989

Contaminants: Chlorinated organic solvents, fuel

Funding to Date: $5.94 million

Preliminary Assessment/ Site Inspection (PA/SI)

The site is surrounded by approximately 5,200 acres of land owned by Martin Marietta (Denver Aerospace). Since 1956, Martin Marietta has developed missiles and missile components for the Air Force at this location. The production, testing, and storage facilities are located southeast of, and at a lower elevation than, the Air Force property. Chlorinated organic solvents frequently were used to clean equipment and piping. Fuels containing hydrazine were developed, purified, and tested in support of the Titan III program.

The Air Force PA/SI investigated potentially contaminated areas on the plant, including the Deluge Containment Pond, a two-million gallon, concrete-lined surface impoundment that receives water potentially contaminated with hydrazine from rocket engine testing; the D-1 landfill, which accepted construction debris, household wastes, and unspecified chemical wastes before its closure and cover in 1974; and three areas of a hydrazine-contaminated water and TCE spill.

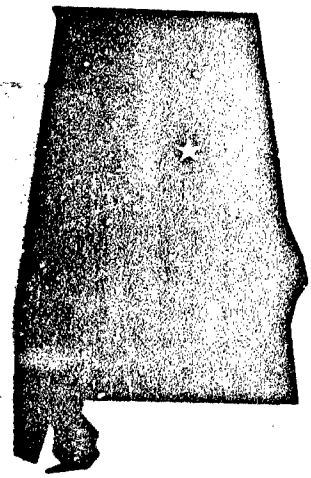
Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS was initiated in March 1986. Samples taken in 1988 from monitoring wells near the contaminated areas detected TCE, 1,1,1-trichloroethane, and Freon 113. Tests conducted in 1986 identified TCE and cis-1,2-dichloroethylene in Brush Creek, which flows from the plant 1.8 stream miles to the South Platte River. The Air Force has prepared a draft RI/FS report, which determined the type and extent of the contamination and identified alternatives for remedial action. EPA is reviewing the draft report.

Remedial Design/ Remedial Action (RD/RA)

RD/RA will begin in 1991.

Alabama Army Ammunition Plant
Childersburg, Alabama



Service: Army

Size: 2,200 Acres

HRS Score: 36.83

Base Mission: Inactive; Former explosives manufacturing plant

IAG Status: Pre-ROD IAG signed December 1989; Became effective March 1990

Action Dates: PA/SI completed 1983; RI/FS initiated 1985; Placed on NPL 1987

Contaminants: Munition-related wastes, heavy metals, nitroaromatic compounds

Funding to Date: $11.14 million

Preliminary Assessment/ Site Inspection (PA/SI)

A PA/SI identified 21 sites as potential contaminant migration sources, with seven targeted for an RI/FS. The studies identified potential vertical contaminant migration within the aquifers and surface water contamination. A confirmation study delineated parameters and migration patterns for one aquifer and identified nitroaromatic compounds in onsite soils and in an aquifer beneath and downgradient from the manufacturing areas.

Remedial Investigation/ Feasibility Study (RI/FS)

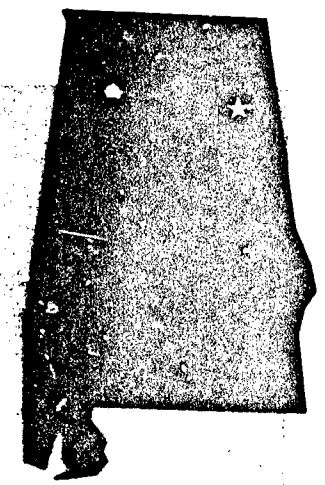
An RI/FS, begun in September 1985, is currently ongoing under the Federal Facilities Agreement (FFA). Investigations to date have determined that the ground water is contaminated with nitroaromatic compounds in concentrations above Federal Ambient Water Quality Criteria (AWQC). Onsite surface water is contaminated with nitroaromatic compounds and lead. Migration of contaminants at levels exceeding criteria is not expected.

Remedial Design/ Remedial Action (RD/RA)

Cleanup of Area A, including soil excavation and decontamination of storage igloos and buildings, was completed in 1988. Additional sampling is to be conducted in FY 91 to confirm completion of cleanup at Area A per EPA Region IV request.

A determination has been made by the Army to incinerate the stockpiled soils from the remediation of Area A that are now stored in Area B as a separate operable unit. An incineration contract was awarded in June 1990, allowing the option of incinerating the explosives-contaminated soils located in Area B.

Anniston Army Depot (Southeast Industrial Area)
Anniston, Alabama



Service:	Army
Size:	15,245 Acres
HRS Score:	51.91
Base Mission:	Maintain combat vehicles and artillery equipment
IAG Status:	Pre-ROD IAG signed June 1990
Action Dates:	PA/SI completed 1983; RI/FS initiated 1983; Placed on NPL 1989
Contaminants:	VOCs, heavy metals, paints, acids, solvents, phenols, degreasers, ammunition wastes, oils and greases, fly ash
Funding to Date:	$6.42 million

Preliminary Assessment/ Site Inspection (PA/SI)

A PA/SI identified 15 past disposal or spill sites potentially contaminated with hazardous wastes. The PA/SI also determined that hazardous wastes from some sites had contaminated the surface water and were probably also contaminating the ground water.

Remedial Investigation/ Feasibility Study (RI/FS)

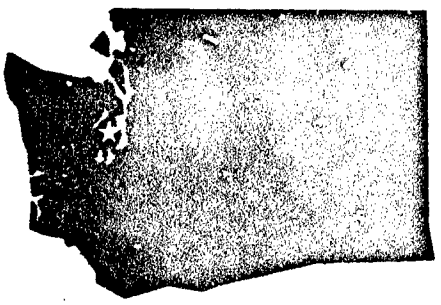
RI/FS work confirmed that the local ground water is contaminated, primarily with VOCs, phenols, and metals. Chrome at levels exceeding the National Pollutant Discharge Elimination System (NPDES) permit have been detected in ground water. Low levels of contaminants have migrated beyond the depot boundary. RIs since 1983 have indicated that contamination on the depot originates from four main sources: the residual Z-1 contamination, the Building 114 dewatering sump, the southern landfill area, and the northeast area near Building 130.

Remedial Design/ Remedial Action (RD/RA)

Approximately 62,000 tons of contaminated materials at Site Z-1 were removed and excavated to a RCRA facility in 1983. An air stripper for removing volatiles from ground water has been operational since 1987. A stream of ground water that was tapped during the building of the basement at Building 114 currently is being treated for removal of VOCs. Expansion of the existing system to allow treatment of chrome currently is being contracted under USACE.

Interim ground water extraction and treatment systems were installed in areas of major contamination within the Southeast Industrial Area, including Site Z-1, the southern landfill, and the northeast area near Building 130.

Bangor Naval Submarine Base
Silverdale, Washington



Service: Navy

Size: 6,692 Acres

HRS Score: 30.42 (Site A)
55.91 (Subase Bangor)

Base Mission: Support for Trident submarines

IAG Status: Pre-ROD IAG signed January 1990

Action Dates: PA/SI completed 1983; Site A placed on NPL 1987; Subase Bangor and Site F placed on NPL 1990; RI/FS initiated 1988

Contaminants: PCBs, waste oil and grease, spent solvents, waste battery acid, pesticides, paints/painting residues, photographic chemicals, metal plating wastes, dyes

Funding to Date: $8.17 million

Preliminary Assessment/ Site Inspection (PA/SI)

During extensive base construction in 1977, significant site contamination was identified. A PA/SI identified 42 sites as potentially contaminated and 10 sites were targeted for RI/FS work. Site A, the Explosive Ordnance Disposal Site, and Site F, the Wastewater Disposal Area for Demilitarization Operations, were of primary concern. Ground water contamination of the uppermost aquifer has been identified at both sites. The primary contaminants of concern are typical constituents of military explosives: cyclonite (RDX) and TNT. The shallow aquifer, soil, and surface water have been contaminated by TNT, RDX, OTTO fuel, and ammonium picrate. The potential for contamination of nearby shoreline sediment from on-base surface water drainage also was evaluated.

Remedial Investigation/ Feasibility Study (RI/FS)

RI field work for Site A was initiated in May 1988, and an RI/FS was completed in November 1990. RI field work for Site F was initiated in November 1989, and an RI/FS will be completed in 1992. RI/FSs for the other eight sites will be completed in 1993.

The Navy detected contamination in area surface waters and shellfish, but since the data are inconclusive, the risks may be very low. As part of an extensive community relations plan, the base has formed a Technical Review Committee (TRC) to allow the local community to review plans. Members include Bangor NSB; Naval Facilities Engineering Command; EPA Region X; State of Washington Department of Ecology; Bremerton/Kitsap County Health Department; Public Utility District #1 of Kitsap County; Hood Canal Coordinating Council; and community representatives from Vineland and Olympia, Washington.

Remedial Design/ Remedial Action (RD/RA)

IRA at Site F is being planned to reduce contaminated ground water migration. Although remediation measures and funding depend on RI/FS conclusions, it is estimated that $25 million will be expended in RD/RA.

Barstow Marine Corps Logistics Base
Barstow, California

Service:	Navy
Size:	5,687 Acres
HRS Score:	37.93
Base Mission:	Store and distribute supplies and equipment
IAG Status:	Initiated and expected to be signed 1991
Action Dates:	PA/SI completed 1986; Placed on NPL November 1989; RI/FS initiated in 1990
Contaminants:	Waste fuels, oils, degreasers, solvents, paints/paint residues, pesticides, PCBs
Funding to Date:	$2.06 million



Preliminary Assessment/ Site Inspection (PA/SI)

A PA/SI was completed in 1986 and identified 36 potentially contaminated sites. The SI recommended that four sites progress into the RI/FS phase. Site 2, the Pesticide Storage and Washout Area at Nebo, is located adjacent to a golf course. Several pesticides and herbicides were detected in its soil, and volatile organic contamination was detected in the ground water. Site 18, the Sludge Waste Disposal Area at Yermo, is east of Building 573 and southwest of the Yermo Industrial Waste Treatment Plant. Trace levels of heavy metals were found in the soil at this site. Site 21, the Industrial Waste Disposal Area at Yermo, is directly west of the effluent ponds at the Yermo Sanitary Wastewater Treatment Plant. PCB contamination was detected in the soil at this site. Site 34, the PCB Storage Area at Yermo, is located adjacent to the Yermo Sanitary Wastewater Treatment Plant. PCB contamination was detected in the soil at this site.

Ground water from the Mojave River Basin beneath the Nebo and Yermo areas used for both domestic and agricultural purposes is contaminated with VOCs. Laboratory analyses conducted in November 1988 indicated VOC contamination of the Yermo drinking and ground water, at concentrations exceeding California drinking water standards. An RFA is scheduled for completion in 1991.

Remedial Investigation/ Feasibility Study (RI/FS)

The RI/FS work plan, health and safety plan, community relations plan, and sampling and analysis plan were completed in 1990. These documents address 38 potentially contaminated sites and include a solid waste water quality assessment test of the Yermo Landfill. The 38 sites are divided into 6 operable units. An FFA was signed in 1990 and establishes an RI/FS schedule for all 38 sites. An investigation of the water quality at 17 offsite drinking water wells in the adjacent community of Yermo was completed in May 1990. Two of the wells showed contamination at trace levels. The offsite wells are scheduled for continued monitoring during the RI. The first TRC meeting was held in November 1990. The TRC includes members from Southwest Division, Naval Facilitics Engineering Command; EPA Region IX; California Department of Health Services; California Regional Water Quality Control Board, Lahontan Region; County of San Bernardino; City of Barstow, public representatives; Base Environmental Officer; Base legal counsel; and the Base Public Affairs Officer.

Remedial Design/ Remedial Action (RD/RA)

A time-critical action to purify the potable water at the Yermo Area was completed in 1989. The activated carbon systems installed are successfully treating and removing VOCs in the ground water.

Brunswick Naval Air Station
Brunswick, Maine



Service:	Navy
Size:	7,259 Acres
HRS Score:	43.38
Base Mission:	Provide facilities, services, materials, and aircraft for anti-submarine warfare
IAG Status:	Pre-ROD IAG signed 1990 between EPA, the Navy, and Maine Department of Environmental Protection
Action Dates:	PA/SI completed 1983; RI/FS initiated 1986; Placed on NPL 1987
Contaminants:	Waste oils, contaminated fuels, solvents, acids, paint residues, photographic chemicals, pesticides/herbicides, asbestos
Funding to Date:	$5.21 million

Preliminary Assessment/ Site Inspection (PA/SI)

A PA/SI identified 10 past disposal or spill sites that could contain hazardous contaminants. Of these, seven were designated as having a high potential for environmental contamination, thus warranting further investigation. Ground water serving 18,000 people, as well as surface water and nearby wetlands, may be threatened by potential contaminant migration.

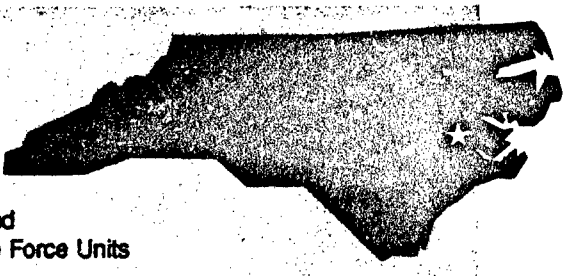
Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS was begun in April 1986 to confirm contamination, evaluate the potential for migration, and determine migration pathways. Exploration at two additional sites was initiated in 1991. A detailed FS for all sites is scheduled for completion in October 1991. The decision document for proposed remedial actions will be initiated in 1991. A TRC, established in December 1987, has held seven meetings to date. TRC members include Northern Division, Naval Facilities Engineering Command; EPA Region I; Maine Department of Environmental Protection; Town of Brunswick; Brunswick-Topsham Water District; and community representatives.

Remedial Design/ Remedial Action (RD/RA)

Initiation of RD/RA work is expected in 1992.

Camp Lejeune Military Reservation
Jacksonville, North Carolina



Service:	Navy
Size:	88,432 Acres
HRS Score:	33.13
Base Mission:	Provide housing, training, logistical, and administrative support for Fleet Marine Force Units
IAG Status:	Initiated and expected to be signed 1991
Action Dates:	PA/SI completed 1983; RI/FS initiated 1984; Placed on NPL 1990
Contaminants:	Waste oils, fuels, solvents, battery acid, lithium batteries, paints, thinners, pesticides/herbicides, PCBs
Funding to Date:	$3.06 million

Preliminary Assessment/ Site Inspection (PA/SI)

A PA/SI identified 77 past spill and disposal sites as potentially contaminated with migrating contaminants. Twenty-four of the sites were targeted for an RI/FS. Two new sites will undergo PA/SI in 1991. Wastes disposed of in landfills create a potential for soil, surface, and ground water contamination. Surface waters drain from the base to the Atlantic Ocean through the New River, both of which support recreational and commercial fishing. Several endangered species, including the American Alligator and the Red-Cockaded Woodpecker, inhabit protected areas on the base. Ground water is the sole source of potable water for the base and surrounding communities.

Remedial Investigation/ Feasibility Study (RI/FS)

An accelerated RI/FS for the Hadnot Point Industrial Area is expected to be completed in 1991. The RI/FS already has identified fuel and chlorinated solvents in the ground water and the contamination source is being investigated. Several on-base drinking water supply wells have been closed. The information available on the remaining 24 sites has been consolidated into an RI interim report focused on scoping the remainder of the RI/FS requirements.

A TRC held its second meeting in August 1990. The next meeting will be scheduled in 1991 as soon as RI/FS documentation for the Hadnot Point Industrial Area and the RI interim report are complete.

Remedial Design/ Remedial Action (RD/RA)

Initiation of RD/RA work is expected in 1992. A fence was installed around the Rifle Range Chemical Dump in 1990.

Camp Pendleton Marine Corps Base
San Diego County, California



Service:	Navy
Size:	125,000 Acres
HRS Score:	33.79
Base Mission:	Provide housing, training, logistical, and administrative support for Fleet Marine Force Units
IAG Status:	Initiated and expected to be signed 1991
Action Dates:	PA/SI completed 1988; Placed on NPL 1990; RI/FS initiated 1989
Contaminants:	VOCs, spent oils, fuels, PCBs, pesticides, solvents
Funding to Date:	$2.43 million

Preliminary Assessment/ Site Inspection (PA/SI)

Twenty subsurface soil borings and 18 ground water monitoring wells have been drilled, and more than 200 individual samples of surface soil, subsurface soil, surface water, and ground water have been analyzed. The 18 chemicals found all have the potential to cause toxic effects, and 12 are known carcinogens. Ground water is the potable water source for the installation. The SI indicated that the potable wells were not contaminated. An RFA is in progress to identify other potential sites for inclusion in the RI/FS.

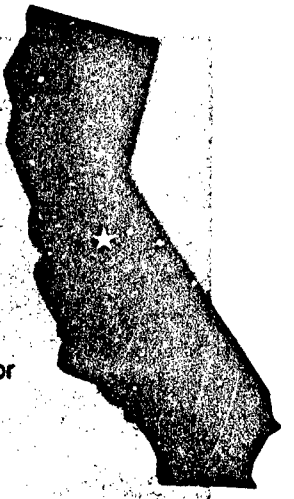
Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS began in September 1989 to investigate the nine original sites. RI/FS scoping documents, including the RI/FS work plan, health and safety plan, community relations plan, and sampling and analysis plan, are currently being developed. An FFA was signed by DoD, EPA, and the State of California in October 1990. A TRC has been formed and includes members from Camp Pendleton MCB; Southwest Division, Naval Facilities Engineering Command; California Regional Water Quality Control Board, San Diego Region 9; EPA Region IX; California Department of Health Services, Toxic Substances Control Division; and public representatives.

Remedial Design/ Remedial Action (RD/RA)

Although no RD/RA activities are currently planned, removal actions will be considered if an imminent threat is identified.

Castle Air Force Base
Merced, California



Service:	Air Force
Size:	2,777 Acres
HRS Score:	37.93
Base Mission:	Train tanker crews; Service KC-135 stratotanker
IAG Status:	Pre-ROD IAG signed 1989
Action Dates:	PA/SI completed 1983; RI/FS initiated 1986; RI/FS scheduled for completion 1991; Placed on NPL 1987
Contaminants:	Spent solvents, fuels, waste oils, pesticides, cyanide, cadmium
Funding to Date:	$12.7 million

Preliminary Assessment/ Site Inspection (PA/SI)

This installation began as an Army base in 1941 and was used as an aircrew training facility. Strategic Air Command (SAC) assumed responsibility for the base in 1946. Mission-support operations have generated varying quantities of hazardous wastes.

PA/SI work was completed in October 1983. The PA/SI consolidated the investigation of 37 initially identified sites into 26 potential contamination source areas. These areas included landfills, discharge areas, chemical disposal pits, fire training areas, fuel spill areas, and PCB spill areas. The Air Force believes that five of the areas (PCB spill sites 4 through 8) require no further investigation because PCB contamination has been removed through appropriate response actions.

Remedial Investigation/ Feasibility Study (RI/FS)

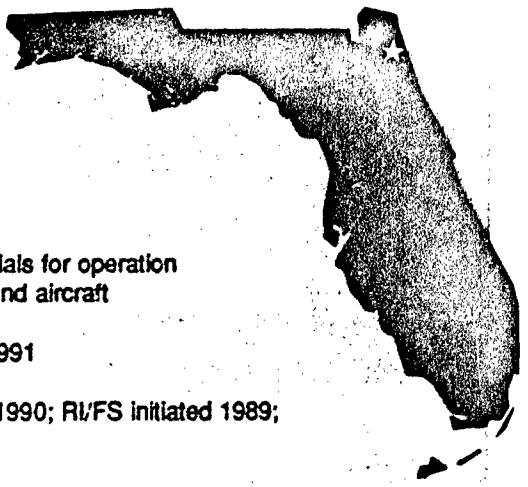
An RI/FS was initiated in September 1986 and grouped the remaining 21 areas into 15 investigative sites plus a new site (the TCE plume). Results to date indicate the shallow ground water aquifer beneath and adjacent to the base is contaminated with nitrates, trace amounts of pesticides, and trichloroethylene at levels exceeding state and federal drinking water standards. The RI/FS will be completed in 1991.

Remedial Design/ Remedial Action (RD/RA)

In 1986, the TCE-contaminated drinking water supply on base was replaced with a potable water well drawing from deeper, uncontaminated aquifers. In 1987, filter systems were installed in off-base wells to remove TCE contamination. Bottled water was supplied to off-base users before filter installation.

In 1988, two deep wells replaced TCE-contaminated water supplies: one for the city of Atwater (2,000 gpm) and one to meet on-base needs (2,100 gpm). These wells extend down between 800 and 900 feet. In 1989, a 1,400-gpm granular activated carbon filtration system for TCE-contaminated ground water was constructed. Additional RD/RA work will begin in 1991.

Cecil Field Naval Air Station
Jacksonville, Florida



Service: Navy

Size: 20,194 Acres

HRS Score: 31.99

Base Mission: Provide facilities, services, and materials for operation and maintenance of naval weapons and aircraft

IAG Status: Initiated and expected to be signed 1991

Action Dates: PA completed 1985; Placed on NPL 1990; RI/FS initiated 1989; SI scheduled for completion 1991

Contaminants: Heavy metals, petroleum/oil/lubricants, paints, solvents, pesticides, fungicides, herbicides, acids, photographic chemicals, paint thinners, blasting grit

Funding to Date: $858,000

Preliminary Assessment/ Site Inspection (PA/SI)

A PA/SI identified 18 sites of potential contamination. Of these, 10 were recommended for further investigation. In 1986, the base was issued a Hazardous and Solid Waste Amendments (HSWA) permit, which identified 14 SWMUs. As required by the HSWA permit, a Remedial Feasibility Investigation (RFI) was performed on the 14 SWMUs. An additional site of potential contamination also was identified during this investigation.

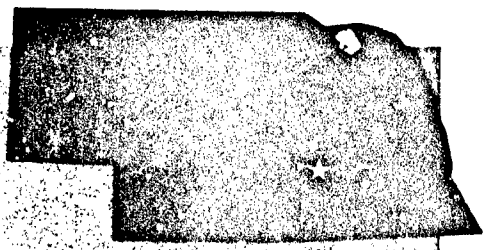
Remedial Investigation/ Feasibility Study (RI/FS)

The Navy has submitted to regulatory agencies and the TRC a draft RI/FS work plan, a community relations plan, a health and safety plan, a sampling and analysis plan, and a site management plan. The first TRC meeting was held on May 11, 1989 and the next meeting will be held when comments concerning the RI/FS work plans have been received. The Navy, EPA, and Florida Department of Environmental Resources (FDER) simultaneously negotiated FFAs for NAS Cecil Field, NAS Jacksonville, and NAS Pensacola. Final signatures occurred in October 1990. Eighteen potential sources of contamination have been identified for further investigation and appropriate corrective action.

Remedial Design/ Remedial Action (RD/RA)

RD/RA work will begin after completion of RI/FS activities.

Cornhusker Army Ammunition Plant
Hall County, Nebraska



Service:	Army
Size:	11,936 Acres
HRS Score:	51.13
Base Mission:	Currently standby status
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	PA/SI completed 1980; RI/FS initiated 1981; Placed on NPL 1987
Contaminants:	Munitions-related wastes
Funding to Date:	$11.96 million

Preliminary Assessment/ Site Inspection (PA/SI)

An Installation Assessment Study (IAS) identified 58 sources of contamination and ground water contamination by explosive compounds. The plant is currently in standby status and the Army is planning to excess it following the completion of environmental studies required for real estate transactions. Preliminary findings from the excessing study indicated extensive asbestos (mostly non-friable) contained in the loading line buildings and UXO in the burning ground area.

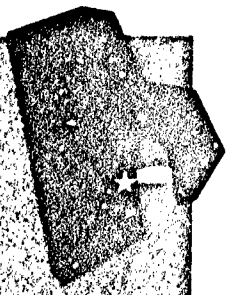
Remedial Investigation/ Feasibility Study (RI/FS)

A contaminant plume that affects more than 500 private wells in Hall County and nearby Grand Island was detected 3 1/2 miles off-post. An RI/FS and a public health evaluation report were submitted to regulators in 1986. RD/RA activities consisting of an alternate water supply and contaminant source remediation were recommended. An IAG, effective September 4, 1990, has been negotiated with EPA and the state. An RI/FS will be initiated to address the entire installation and investigate post-wide for any additional areas of contamination concern. The RI/FS will investigate the burning grounds explosive/UXO contamination and the feasibility of remediation of the contaminated ground water that has migrated off post.

Remedial Design/ Remedial Action (RD/RA)

In 1986, the municipal water system was extended to 800 residences in Grand Island. A dewatering system also was completed to control the high water table. In addition, remediation was initiated on contaminated soil at 58 cesspools and leaching pits to destroy all explosive compounds. Incineration operations began in 1987 and ended in 1988. Approximately 40,000 tons of soil were incinerated. The incinerated soil was landfilled onsite in accordance with procedures agreed to by the Army and Nebraska.

Davisville Naval Construction Battalion Center
North Kingston, Rhode Island



Service:	Navy
Size:	1,284 Acres
HRS Score:	34.52
Base Mission:	Mobilize reserve naval construction battalions; Supply construction equipment
IAG Status:	Initiated and expected to be signed 1991
Action Dates:	PA/SI completed 1984; RI/FS initiated 1988; Placed on NPL November 1989
Contaminants:	PCBs, VOCs, petroleum oil/lubricants, pesticides, lead
Funding to Date:	$1.72 million

Preliminary Assessment/ Site Inspection (PA/SI)

Davisville Naval Construction Battalion Center (NCBC) consists of the Main Center; the West Davisville Storage Area, located in the town of North Kingston, Rhode Island, approximately 10 miles south of Providence; and Camp Fogerty, a training facility located in the town of East Greenwich, Rhode Island, 4 miles west of the Main Center.

A PA/SI addressed 14 sites. A Confirmation Study/Verification Step on 13 sites was completed in February 1987. Three of the sites were recommended for further study by the PA/SI, seven were requested for further study by the Rhode Island Department of Environmental Management, and three were targeted for further study by the Navy. A contract for removal of PCB-contaminated concrete at two other sites is under negotiation. The remaining 10 sites will be studied under an RI/FS. The results of the Verification Step indicated that the 13 sites posed no imminent health hazard.

Remedial Investigation/ Feasibility Study (RI/FS)

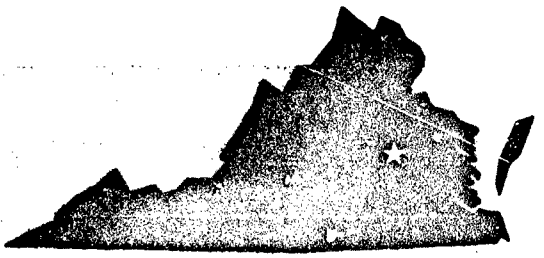
The Navy has completed a work plan for an RI/FS at 10 sites. Eighteen TRC meetings have been held since April 1988. TRC members include Davisville NCBC; Northern Division, Naval Facilities Engineering Command; EPA Region I; Rhode Island Department of Environmental Management; town of North Kingstown; town of East Greenwich; USFDA; USEPA Engineering Research Laboratory, Narrangasett; Naval Ocean Systems Center, San Diego, California; TRC Environmental Consultants; and Narrangasett Bay Project.

In May 1989, the community relations plan was issued for NCBC. Field work for the RI/FS work plan was completed in the spring of 1990. The final RI report is expected to be issued in March 1991.

Remedial Design/ Remedial Action (RD/RA)

Initiation of RD/RA is expected in 1992.

Defense General Supply Center Richmond
Chesterfield County, Virginia



Service:	Defense Logistics Agency
Size:	640 Acres
HRS Score:	33.85
Base Mission:	Manage general supplies for Armed Forces
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	PA/SI completed 1985; RI/FS initiated 1986; Placed on NPL 1987
Contaminants:	Phenols, solvents, paints/paint residues, corrosives, pesticides/herbicides, refrigerants/antifreeze, photographic chemicals, oils
Funding to Date:	$4.93 million

Preliminary Assessment/ Site Inspection (PA/SI)

PA/SI work revealed 30 potential past spill and/or disposal sites. Six of these sites were recommended for further study under an RI/FS. Three of the sites are contiguous, with a high potential for contaminant migration. Both on- and off-base water supplies have been contaminated with phenols; chloroform; methylene chloride; dichlorobenzene; di-, tri- and tetrachloroethylene; and chromium.

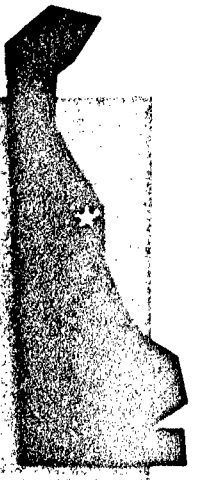
Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS was initiated in September 1986, and to date two draft RIs for the Area 50/Open Storage Area/ National Guard Area and one draft RI for the Acid Neutralization Pits have been submitted to EPA and the Virginia Department of Waste Management (VDWM). Comments on the most recent RIs have been addressed and scopes of work have been prepared and approved by EPA and VDWM. Upon approval of the final RIs by EPA and VDWM, an FS will be prepared and submitted for approval. Three subareas have been determined to be candidates for Focused Feasibility Studies (FFSs). All organic contaminants found in the ground water have been less than 0.1 ppm.

Remedial Design/ Remedial Action (RD/RA)

Once EPA and VDWM approve the FFSs and FSs, a ROD for each study will be issued. The FFSs will be limited to soil remediation. Additional work is required to define completely the extent of ground water contamination in each area. It is anticipated that RODs will be issued during 1991 and RD/RA on soils can begin in late 1991. It is also anticipated that RIs on the extent of ground water contamination will be completed in 1991 and RODs will be issued in early 1992. This will permit RD/RA for ground water to begin during 1992.

Dover Air Force Base
Dover, Delaware



Service:	Air Force
Size:	3,740 Acres
HRS Score:	35.89
Base Mission:	Air lift services for troops, cargo, and equipment
IAG Status:	Pre-ROD IAG signed 1989
Action Dates:	PA/SI completed 1983; RI/FS initiated 1987; RI/FS scheduled completion 1993; Placed on NPL 1989
Contaminants:	Solvents, paints, waste fuel and oils, VOCs, muriatic and nitric acids, caustic soda, cyanide, heavy metals, phenols
Funding to Date:	$8.09 million

Preliminary Assessment/ Site Inspection (PA/SI)

Some wastes were buried in drums and others were disposed of in various on-base locations covering 44 acres. A PA/SI identified 11 areas as potential sources of contamination. Seven of these sites were targeted for RI/FS work. The upper aquifer was contaminated with low levels of VOCs and heavy metals. The deeper aquifer provides drinking water to the base and is not contaminated. A supplemental SI is being performed on 37 additional sites, which were added to the program at the time the IAG was signed in 1989.

Remedial Investigation/ Feasibility Study (RI/FS)

A presurvey, completed in June 1986, investigated 12 sites and confirmed that the concentration of VOCs and metals in soils, sediments, and surface and ground water exceed Delaware's drinking water standards at several sites. An additional eight sites have been identified since the 1986 presurvey was completed. Contaminant source areas and the extent of contaminant migration currently are being investigated under an RI/FS that was initiated in August 1987. Completion of the RI/FS is expected in 1993.

Remedial Design/ Remedial Action (RD/RA)

In 1985, a removal and closure action was conducted at Site WP-21 to clean up the old industrial waste basin, the major source of ground water contamination. Remedial actions were conducted to comply with state regulatory requirements. Solid Waste Disposal Area Site LP-24 was remediated and closed in 1988. A ROD was signed in late 1990 for RA at Site FT-03, a former fire training area. Additional RD/RA work will continue in FY 91.

Edwards Air Force Base
Kern County, California

Service:	Air Force
Size:	800 Square Miles
HRS Score:	33.62
Base Mission:	Aircraft research and development center
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	Initial PA/SI completed 1982; RI/FS initiated 1986; Placed on NPL 1990
Contaminants:	Waste oils, solvents, VOCs, petroleum hydrocarbons
Funding to Date:	$21 million



Preliminary Assessment/ Site Inspection (PA/SI)

The Main/South Base, at the western edge of Rogers Dry Lake, is used primarily for maintaining and refueling aircraft. Large amounts of fuel have been spilled and poor disposal practices have resulted in the release of organic solvents to the ground in this area. Other sites in the area include an abandoned sanitary landfill, an area where electroplating wastes were dumped, and the storm water retention pond. The North Base, located 5 miles to the northeast of the Main Base area, has a drum storage site at the north end of Rogers Dry Lake, and three unlined surface impoundments where wastes were poured during the 1960s and 1970s. Contaminants include waste oils, solvents, and nitric acid generated primarily by the Air Force Rocket Propulsion Laboratory. According to a 1987 IRP report, trichloroethylene; trans-1,2-dichloroethylene, 1,2-dichloroethylene; tetrachloroethylene; and methylene chloride are present in the shallower ground water aquifer underlying the Main/South Base. Edwards AFB's 13,800 employees obtain drinking water from deep aquifer water wells within 3 miles of the Main/South Base.

Five sites are being assessed to confirm the presence of contaminants and assess the need to make these areas formal IRP sites.

Remedial Investigation/ Feasibility Study (RI/FS)

A site-specific RI/FS was initiated in August 1986 to determine the type and extent of contamination in local areas and to identify alternatives for remedial action. The sites identified at Edwards AFB include drum disposal areas, waste disposal pits, USTs, a leaking jet fuel pipeline, rocket test stands, oxidation/evaporation ponds, landfills, fire protection training areas, TCE sites, and other spill sites.

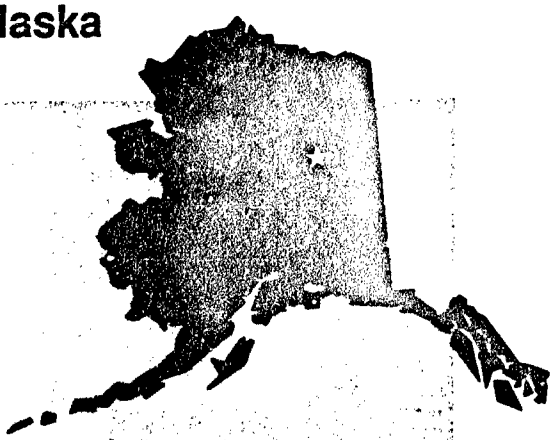
Regulatory agencies have reviewed a recommendation for no further action at 10 sites. The response is that further investigative work will be required before approval of this recommendation.

Remedial Design/ Remedial Action (RD/RA)

In 1984, drums and contaminated soil in a drum disposal area (Site 1) were removed and the site was capped. The Main Base toxic waste disposal area (Site 2) was regraded and long-term monitoring was initiated. In the South Base POL storage area (Site 5), tanks were excavated or filled with clean sand and the area was regraded.

In 1989, a ground water treatment system was installed at Site 16 and placed in operation. In 1990, USTs were removed. Ground water will continue to be monitored in 1991.

Eielson Air Force Base
Fairbanks North Star Borough, Alaska



Service:	Air Force
Size:	19,790 Acres
NRS Score:	48.14
Base Mission:	Tactical air support to Pacific Air Forces
IAG Status:	Initiated and expected to be signed 1991
Action Dates:	PA/SI completed 1982; RI/FS initiated 1986; Placed on NPL 1989
Contaminants:	Heavy metals, petroleum/oil/lubricants, VOCs, solvents
Funding to Date:	$8.21 million

Preliminary Assessment/ Site Inspection (PA/SI)

Eielson AFB contains an active asbestos landfill and closed, unlined landfills that extend into ground water, shallow trenches where weathered tank sludge was buried, drum storage areas, and other disposal/spill areas.

Lead, arsenic, chromium, copper, nickel, and zinc have been found in the soil at the drum storage area; trans-1,2-dichloroethylene and lead have been found in shallow onsite monitoring wells. An estimated 9,000 people obtain drinking water within 3 miles of the base. Thirty-three sites are scheduled to enter the PA/SI phase under the IAG in 1991.

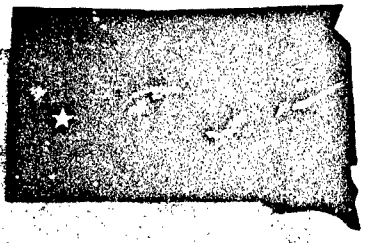
Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS was initiated in August 1986. Ongoing RI/FS work is planned for nine sites during 1991 to determine the extent of contamination on base and identify alternatives for remedial action under the IAG.

Remedial Design/ Remedial Action (RD/RA)

Several monitoring wells have been converted into static recovery wells to remove floating petroleum product from ground water; small quantities have been recovered. Four USTs were removed in 1990. RD activities will be started or completed at 16 sites under the IAG. A contaminated soil storage area and an industrial asphalt dryer system are planned for treating fuel-saturated soils. Treatability studies will be performed in 1991 for one site close to a drinking water well. Removal actions will be scheduled based on information obtained from these studies.

Ellsworth Air Force Base
Rapid City, South Dakota



Service:	Air Force
Size:	4,858 Acres
NPL Score:	33.62
Base Mission:	Long-range bombardment missiles and air refueling
IAG Status:	Initiated and expected to be signed 1991
Action Dates:	PA/SI completed 1985; RI/FS initiated 1987; Placed on NPL 1990
Contaminants:	VOCs, metals, solvents, jet fuel
Funding to Date:	$5.1 million

Preliminary Assessment/ Site Inspection (PA/SI)

The base is bordered by pen land on the north, west, and south and by commercial residential areas to the east.

The September 1985 PA/SI report identified 15 sites with potential hazardous waste disposal. These sites included six landfills, five spill sites, and four fuel sites.

Remedial Investigation/ Feasibility Study (RI/FS)

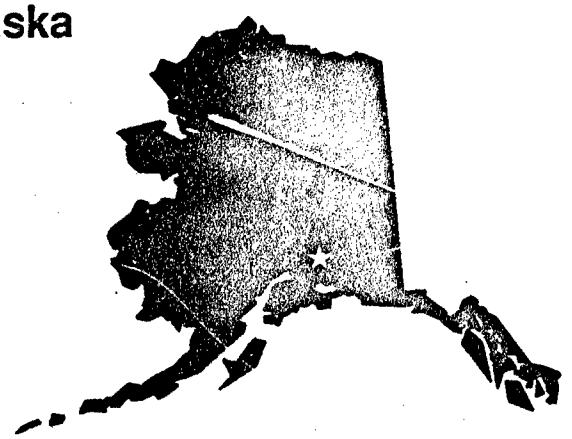
An RI was initiated in 1987 and completed in 1989. The RI report concluded that only four of the sites (the Fire Training Area, an auto shop, a fuel hydrant, and a landfill) required an FS. The FS for these sites is underway and is scheduled for completion in 1991.

It is anticipated that additional RI/FS work will be required under the IAG currently under negotiation.

Remedial Design/ Remedial Action (RD/RA)

Various USTs have been removed to date. Pilot ground water treatment plants are underway at the fuel hydrant area and the fire training area. Additional UST removal and a fencing project are scheduled for 1991.

Elmendorf Air Force Base
Greater Anchorage Borough, Alaska



Service: Air Force

Size: 13,100 Acres

HRS Score: 45.91

Base Mission: Headquarters to Alaskan NORAD Region; F-15 Fighter Wing; NORAD Region Operations Control Center; Rescue Coordination Center; Military Airlift Group flying transports

IAG Status: Initiated and expected to be signed in 1991

Action Dates: Original PA/SI completed 1983; RI/FS initiated 1986; Placed on NPL 1990

Contaminants: VOCs, heavy metals, petroleum/oil/lubricants, solvents, paints

Funding to Date: $5.14 million

Preliminary Assessment/ Site Inspection (PA/SI)

An estimated 121,000 individuals reside within 3 miles of the installation, but drinking water for these residents is obtained from surface supplies located 12 to 30 miles north of the base. Emergency back-up water supply wells for Elmendorf AFB are located within 3 miles of identified contamination.

The original PA/SI identified 12 areas of contamination, which subsequently have increased to 60 areas for study. Initially, focus was on five contaminated areas. In the past, Landfills D-5 and D-7 received hazardous wastes, including lead, acid batteries, and waste solvents. The unlined and unbermed landfills are located in sandy and gravelly soils. Shop wastes, including solvents and paint thinners, were disposed of in Site D-17, a naturally occurring unlined trench. At Site IS-1, fuel in Building 42-400 spilled onto floor drains that feed into gravel-bottom dry wells. The last area included in the initial investigation is a JP-4 spill site. Additional site investigations are planned for approximately six sites during 1991.

Remedial Investigation/ Feasibility Study (RI/FS)

Continued RI/FSs are planned for approximately 15 locations during 1991. Additional field work will be conducted at former landfills, hazardous waste disposal locations, and spill sites. Shop wastes, including solvents and paint thinners, have been discharged through building drains emptying into a naturally occurring unlined ditch and dry wells. The current RI/FS work plan was completed in the fall of 1989. The studies to date at 32 sites have indicated that 8 sites will require no further action.

Remedial Design/ Remedial Action (RD/RA)

IRAs in 1990 included the removal of 110,000 gallons of liquid hazardous waste from a 338,000-gallon abandoned concrete UST, the demolition of the tank, and the installation and operation of a ground water treatment system at the JP-4 spill site.

Removal actions planned for 1991 include remediation of an abandoned asphalt drum staging area and the removal of 28 abandoned 50,000-gallon JP-4 tanks.

El Toro Marine Corps Air Station
Irvine, California



Service:	Navy
Size:	4,700 Acres
HRS Score:	37.43
Base Mission:	Major west coast jet fighter facility
IAG Status:	Initiated and expected to be signed late 1990
Action Dates:	PA completed 1987; RI/FS initiated 1989; Placed on NPL 1990
Contaminants:	Waste fuels and oils, organic solvents, degreasers, paints, photographic chemicals, PCBs, corrosives, refrigerants, pesticides, herbicides, VOCs
Funding to Date:	$2.48 million

Preliminary Assessment/ Site Inspection (PA/SI)

An Initial Assessment Study (IAS) was completed in May 1986 and recommended an SI be performed for 9 of 17 sites. In response to regulatory agency comments during September 1986, four sites were added to the SI. An SI work plan was finalized in August 1988, but due to funding restrictions, it was never implemented.

The Orange County Water District (OCWD) discovered TCE in two off-station wells. A perimeter investigation was conducted and documented TCE contamination up to 90 ppb in shallow ground water at the base boundary, and limited migration of contamination off station. OCWD completed an off-station ground water investigation in 1989 and documented the existence of a large TCE plume in deep ground water over a 3-mile radius off base. Their results have generated controversy regarding base responsibility for the contamination. As an initial remedial measure, existing monitoring wells were retrofitted with pumps and a small activated carbon treatment plant was constructed.

The California Water Quality Control Board requested that approximately 30 additional sites be investigated. In response to this request and to comply with RCRA requirements, the Navy is conducting an RFA.

Remedial Investigation/ Feasibility Study (RI/FS)

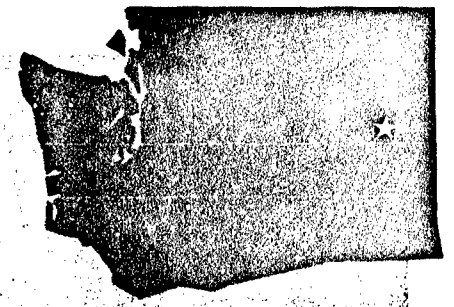
Development of an RI/FS work plan began in December 1989 and includes 22 sites. An additional RI/FS work plan will be generated late in 1991 to incorporate one more site and any additional sites identified for the RI/FS process through an RFA.

An FFA between El Toro MCAS, EPA, and the State of California was signed in October 1990. The TRC members include El Toro MCAS; Southwest Division, Naval Facilities Engineering Command; EPA Region IX; State of California Department of Health Services; California Regional Water Quality Control Board; Orange County; Orange County Water District; Irvine Water District; and public representatives.

Remedial Design/ Remedial Action (RD/RA)

A treatability study was implemented in 1989 to test the feasibility of using activated carbon to remove contaminants from ground water. Ground water is being pumped continuously from three existing monitoring wells and treated using this system. RD/RA activities are expected to be initiated in 1995.

Fairchild Air Force Base (4 Waste Areas)
Spokane County, Washington



Service: Air Force

Size: 4,300 Acres

HRS Score: 31.98

Base Mission: Strategic Air Command operations

IAG Status: Pre-ROD IAG signed 1990

Action Dates: PA/SI completed 1985; RI/FS initiated 1988; Placed on NPL 1989

Contaminants: Solvents, fuels, oils, electroplating chemicals, cleaning solutions, corrosives, photographic chemicals, paints, thinners, pesticide residues, PCBs, low-level radioactive wastes

Funding to Date: $4.26 million

Preliminary Assessment/ Site Inspection (PA/SI)

A well within base boundaries is a standby water supply for the base's 5,200 employees. Approximately 250 private wells serving about 12,000 people are within 3 miles of the facility. West Medical Lake, Medical Lake, and Silver Lake, located within 3 miles downstream of the base, support wildlife and are used for recreational activities.

A PA/SI identified 21 waste disposal sites at Fairchild AFB and one site at the USAF/FAA operations at Mical Peak. Land-use restrictions due to hazardous waste contamination are in effect. Four waste areas covering 85 acres comprise the NPL site and include Building 1034 French drain and dry well system; two landfills, one northeast of taxiway 8 and one at Craig Road; and the industrial waste lagoons. More than 4,000 drum-equivalents of carbon tetrachloride and other solvents, paint wastes, plating sludges containing cadmium and lead, and related industrial wastes have been disposed of in the four areas.

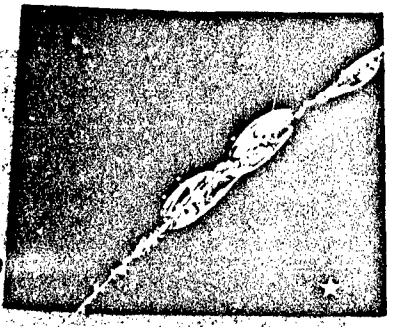
Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS for 10 sites was initiated in 1988 and is expected to be completed in 1991. An RI/FS for an additional 15 sites will be initiated in 1991 and is expected to oe completed by the end of 1992. The industrial waste lagoons, a fire training area, and two base landfills lead the list of sites being assessed under the RI/FS.

Remedial Design/ Remedial Action (RD/RA)

During 1990, USTs were removed. Additional UST removal is scheduled for 1991.

F.E. Warren Air Force Base
Cheyenne, Wyoming



Service: Air Force

Size: 5,866 Acres

HRS Score: 39.23

Base Mission: Strategic Air Command operations; Strategic Missile Wing; Aerospace Rescue and Recovery Squadron

IAG Status: Initiated and expected to be signed 1991

Action Dates: PA/SI completed 1985; RI/FS initiated 1987; Placed on NPL 1990

Contaminants: Lubricating oils, solvents, paints, coal and fly ash, batteries/battery acid

Funding to Date: $4.7 million

Preliminary Assessment/ Site Inspection (PA/SI)

Agricultural lands and industrial developments surround F.E. Warren AFB. According to tests conducted in May and June 1987 by the U. S. Geological Survey (USGS), TCE and chloroform are present in monitoring wells on base. An estimated 2,400 people obtain drinking water from private deep aquifer wells upgradient and within 3 miles of hazardous substances on base. USGS also detected lead in soil at the firing range, and TCE in Crow and Diamond Creeks on base downgradient of spill areas. The Air Force has identified 18 areas as potentially containing hazardous substances that can migrate. These 18 areas include 7 areas involving spills or leaks, 6 landfills, 2 fire training areas, a battery acid disposal pit, the firing range, and a contaminated surface water area.

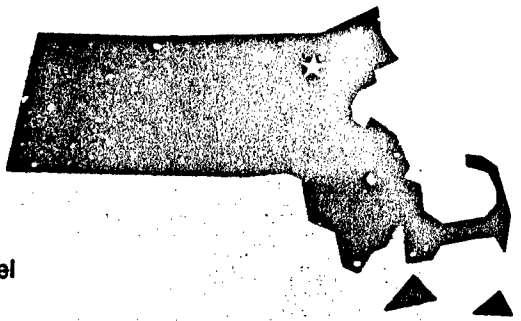
Remedial Investigation/ Feasibility Study (RI/FS)

RI/FS work was initiated in April 1987 and is underway at 19 sites, which have been combined into 7 operable units. The RI/FS will continue until 1994. The eight decision documents produced in 1990 specifying no further action were rejected by EPA.

Remedial Design/ Remedial Action (RD/RA)

Water wells have been installed to monitor ground water contamination. During 1990, soils and TCE were removed from Spill Site No. 7, a major contaminant source for both ground water and Diamond Creek. Ground water recovery and treatment will begin in the spring of 1991. Remedial actions are scheduled for two spill sites and two fire training areas in 1991.

Fort Devens
Fort Devens, Massachusetts



Service: Army

Size: 9,416 Acres

HRS Score: 42.24

Base Mission: Army Reserve and National Guard personnel training; Army Security Agency Training Center and School support

IAG Status: Initiated and expected to be signed 1991

Action Dates: PA/SI completed 1982; RI/FS initiated 1989; Placed on NPL 1989

Contaminants: VOCs, petroleum products, battery acid, PCBs, pesticides, herbicides, photographic chemicals, medical wastes

Funding to Date: $1.94 million

Preliminary Assessment/ Site Inspection (PA/SI)

The initial assessment recommended: (1) no follow-up studies and (2) the Fort Devens Sanitary Landfill facility closure plan should be coordinated with the Commonwealth of Massachusetts. In 1985, Fort Devens applied for a RCRA Part B permit for its hazardous waste storage facility. In the permit process, Fort Devens identified 40 SWMUs. A detailed SI of eight sites was initiated in September 1990.

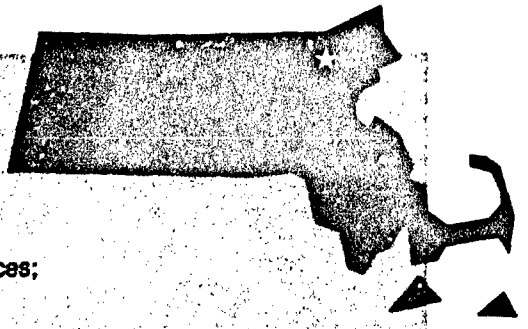
Remedial Investigation/ Feasibility Study (RI/FS)

A master environmental plan was prepared in 1989. This plan identifies and prioritizes all potential hazardous waste sites and proposes appropriate investigative and corrective action efforts for each site. An RI of two landfills was initiated in September 1990.

Remedial Design/ Remedial Action (RD/RA)

RD/RA work will begin after completion of RI/FS activities.

Fort Devens–Sudbury Training Annex
Middlesex County, Massachusetts



Service:	Army
Size:	2,301 Acres
HRS Score:	35.57
Base Mission:	Troop training; Geophysics laboratory services; Fish and wildlife management
IAG Status:	Not started
Action Dates:	PA/SI completed 1980; Placed on NPL 1990; RI/FS completion expected 1993
Contaminants:	VOCs, petroleum products, PCBs, pesticides, herbicides
Funding to Date:	$2.10

Preliminary Assessment/ Site Inspection (PA/SI)

Sudbury Annex is managed by Fort Devens Army Installation, located approximately 12 miles to the northwest. Prior to 1982, Sudbury Annex was part of the Natick Research Development and Engineering Center (NRDEC). In 1982, all but a small housing area was excessed to Fort Devens. The PA/SI recommended a follow-on survey of Sudbury Annex to confirm the presence or absence of contamination, and to determine the extent of contaminant migration.

Additional PA/SI work will be conducted to ensure that all disposal sites have been identified. Completion is scheduled for 1991.

Remedial Investigation/ Feasibility Study (RI/FS)

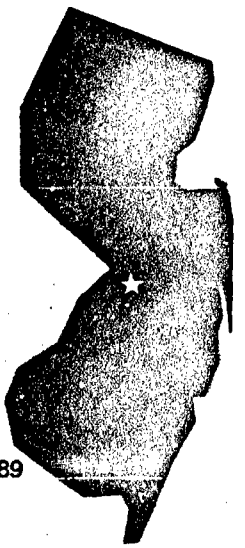
An initial RI was performed at 11 sites in November 1986. Two sites were recommended for further monitoring for a minimum of one year to determine the extent of contaminant migration within the soils and subsurface environment. Three sites were identified as contributing to the NPL score.

Additional RI work at the original 11 sites and all newly identified sites is required. An RI/FS for Sudbury Annex is scheduled for completion in 1993.

Remedial Design/ Remedial Action (RD/RA)

RD/RA work will begin after completion of RI/FS activities. One of the sites, the PCE Spill Area, has been remediated.

Fort Dix (Landfill Site)
Pemberton Township, New Jersey



Service:	Army
Size:	32,600 Acres
HRS Score:	37.40
Base Mission:	Army Reserve and National Guard training and combat support
IAG Status:	Initiated and expected to be signed in 1991
Action Dates:	RI/FS initiated 1985; Placed on NPL 1987; PA/SI completed 1989
Contaminants:	VOCs, heavy metals, petroleum/oil/lubricants, solvents, photographic chemicals, pesticides, herbicides, medical wastes
Funding to Date:	$3.77 million

Preliminary Assessment/ Site Inspection (PA/SI)

During the PA, the Army identified 21 past disposal and/or spill sites potentially contaminated with hazardous waste. Twenty-one sites were investigated further during the SI. Ground water contamination was observed at 10 sites. Lead, nickel, and cadmium, and petroleum hydrocarbons were found at four sites. VOCs (1,1,1-trichloroethane, 1,1,2-TCE, and chloroform) were present at three sites. Buried fuel tanks or contaminated sources were identified at two locations. The PA/SI recommended further investigation of 10 sites to determine the presence, magnitude, and extent of contamination.

Remedial Investigation/ Feasibility Study (RI/FS)

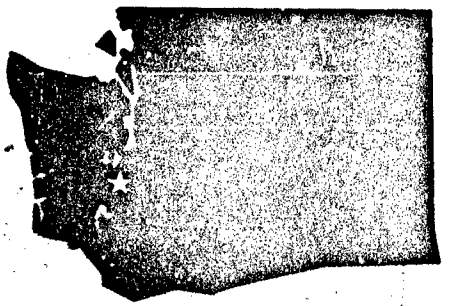
An RI/FS was initiated in September 1985 and indicated that a plume of contaminated ground water was emanating from the southwestern portion of the Fort Dix Sanitary Landfill. The contaminants do not appear to be highly concentrated. A geophysical field investigation suggested that the stream and associated surface water bodies act as a hydraulic barrier to suspected contaminant migration. The recommended course of action is to cap the lower 50 acres of the landfill with an impermeable membrane and to initiate a stringent monitoring program. An installation-wide RI of 14 sites confirmed ground water contamination at 3 sites and potential contamination at 2 additional sites. A follow-on RI is underway at eight sites.

Further RI/FS efforts will be performed under the upcoming IAG.

Remedial Design/ Remedial Action (RD/RA)

A proposed action plan has been submitted and a ROD has been formulated for the landfill site and is currently being negotiated between the state and EPA. RD is scheduled for 1991.

Fort Lewis
(Landfill #5 and Logistics Center)
Tacoma and Tillicum, Washington



Service: Army

Size: 86,541 Acres

HRS Score: 33.79 (Landfill)
35.48 (Logistics Center)

Base Mission: I Corps Headquarters - plans and executes Pacific, NATO, or other contingencies; Troop training; Airfield; Medical Center; Logistics for supplies and maintenance. Activities on the Logistics Center include the Defense Logistics Agency DRMO - Lewis and a permitted (interim) hazardous waste storage facility.

IAG Status: Pre-ROD IAG signed January 1990 with EPA and State of Washington

Action Dates: PA completed 1984. Landfill 5 placed on NPL 1987; RI/FS initiated 1988. Logistics Center placed on NPL 1989; RI/FS completed in May 1990; ROD signed September 1990 between Army and EPA with concurrence by State of Washington.

Contaminants: Spent solvents, metal plating wastes, pesticides, PCBs, waste oils and fuels, VOCs, asbestos, coal liquefication wastes, polycyclic aromatic hydrocarbons, paint, battery electrolytes, metals, paint strippers and thinners

Funding to Date: $7.09 million

Preliminary Assessment/ Site Inspection (PA/SI)

A PA identified 26 sites potentially contaminated with hazardous wastes, of which 16 were recommended for further study. In 1990, SIs were completed at Park Marsh Landfill (used previously by the Veterans Administration) and Landfill 5. Preliminary results at Park Marsh Landfill detected PCBs and pesticides in the sediments. Landfill 5 was determined to have ground water contamination.

Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS was completed for the Logistics Center in 1990. The primary ground water contaminants are solvents, TCE, and cis-1,2-dichloroethylene (DCE). In general, the ground water contamination moves off post from the Logistics Center toward the town of Tilicum.

An RI/FS was initiated at Landfill 5 in 1988. The primary ground water contaminants are iron, manganese, benzene, TCE, and vinyl chloride. The RI/FS is expected to be completed in 1991. Four potential sources have been identified. A proposed cleanup plan was reviewed by the public.

Remedial Design/ Remedial Action (RD/RA)

As a result of the ROD, RD will be initiated for the Logistics Center. The design includes a pump and treat system to treat ground water. Construction is expected to begin in 1991. The ROD also includes monitoring and confirmation sampling to ensure that all remaining sources of soil contamination have been identified and characterized.

Fort Ord
Marina, California



Service:	Army
Size:	29,598 Acres
HRS Score:	42.24
Base Mission:	Training center
IAG Status:	Pre-ROD IAG signed July 1990
Action Dates:	PA/SI of 4 sites completed 1990; PA/SI of 11 new sites initiated 1989; RI/FS for landfills initiated 1989; Installation-wide RI/FS initiated 1990; RD/RA initiated 1988; Placed on NPL 1990
Contaminants:	Metals and VOAs
Funding to Date:	$9.21 million

Preliminary Assessment/ Site Inspection (PA/SI)

A preliminary hydrogeological investigation (PHI) completed in 1990 identified the sanitary landfills as the source of contamination for the city of Marina's backup supply well and determined that other supply wells were a potential conduit for contamination between aquifers. The PHI also established areas where soil gas is evolving from the landfills.

The PA/SI completed in 1990 identified four sites of contamination. The sites are two motor pools, a fire drill pit, and a cannibalization yard. The contaminants include petroleum wastes, VOAs, and metals.

Field work at 11 sites has been completed since the PA/SI was initiated in 1989. These sites include sewage treatment plants, motor pools, AAFES Cleaners and Gas Station, an old DRMO yard, and EOD range areas.

Remedial Investigation/ Feasibility Study (RI/FS)

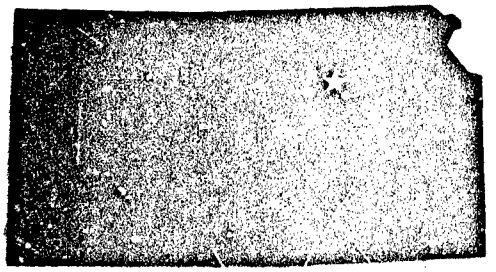
The landfills' RI/FS was initiated in 1989. Eleven monitoring wells were installed to supplement the 13 PHI wells, and the first set of samples have been taken. This site is one of two operable units in the IAG.

During the literature search and interviewing process, several new sites have been discovered for investigation and the initiation of a base-wide RI/FS was prompted in July 1990. One source of contamination was identified as an UST containing unleaded fuel.

Remedial Design/ Remedial Action (RD/RA)

A ground water/soil treatment system at the Fritzche Army Air Field has been operating since 1988. Seventy percent of the contaminated soil has been cleaned and removed. This site is estimated to be completed by 1993. A soil gas extraction pilot study at Building 511 was initiated in 1990.

Fort Riley
Junction City, Kansas



Service:	Army
Size:	152 Square Miles
HRS Score:	33.79
Base Mission:	Headquarters of U.S. Army First Infantry Division
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	PA/SI completed 1983; Placed on NPL 1990
Contaminants:	Cleaning solvents, pesticides
Funding to Date:	$1.05 million

Preliminary Assessment/ Site Inspection (PA/SI)

A PA/SI focused on past and current usage of toxic and hazardous materials, and the potential for these substances to migrate off the installation. The PA/SI determined that toxic and hazardous wastes (primarily waste oils and degreasing solvents) were formerly (mid-1960s to 1970) disposed of in the landfill southwest of Camp Funston. The landfill has been investigated and was closed in accordance with the State of Kansas regulations. Limited hydrogeological and water quality data indicate that contaminants are not migrating at significant rates from the landfill. The area around Fort Riley is predominantly rural and agricultural. The Fort incorporates seven landfills, numerous motor pools, burn and firefighting pit areas, hospitals, dry cleaning shops, and pesticide storage and mixing areas. The sanitary landfills at Camp Funston and the Main Post (cleaning solvents and pesticide residues) are suspected as potential sources of contamination at Fort Riley.

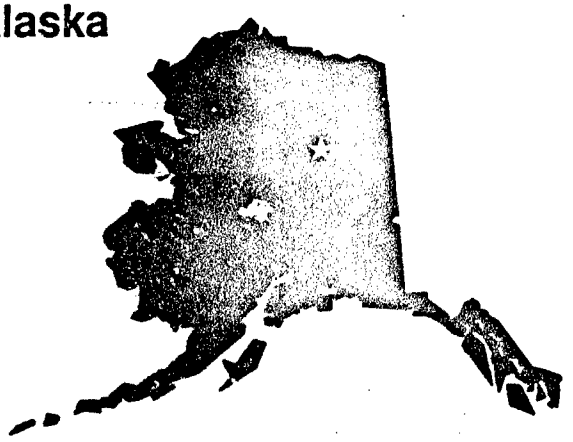
Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS is required under the IAG for the SW Funston Landfill and the Pesticide Storage Facility. A schedule for RI/FS work will be submitted to EPA in early 1991. RI work performed to date includes well installations, landfill characterization, and ground water sampling and analysis.

Remedial Design/ Remedial Action (RD/RA)

Thirty-eight abandoned USTs and ancillary equipment were removed in 1990. Additional RD/RA work will begin after completion of the RI/FS.

Fort Wainwright
Fairbanks North Star Borough, Alaska



Service: Army

Size: 917,993 Acres

HRS Score: 42.40

Base Mission: Training for soldiers and equipment testing in arctic conditions

IAG Status: Not started, initiation expected 1991

Action Dates: PA/SI completed 1983; Placed on NPL 1990; RI/FS initiated 1989

Contaminants: Petroleum/oil/lubricants, heavy metals, solvents, pesticides, paints

Funding to Date: $2.72 million

Preliminary Assessment/ Site Inspection (PA/SI)

An Army assessment completed in September 1981 identified several sites where waste handling practices did not conform to guidelines. These sites include the North Post Site, the sanitary landfill, the fire training pit, the Fairbanks Terminal, and Eielson Pipeline. Since the characteristics of these sites indicate that no migration can occur, a survey was not recommended.

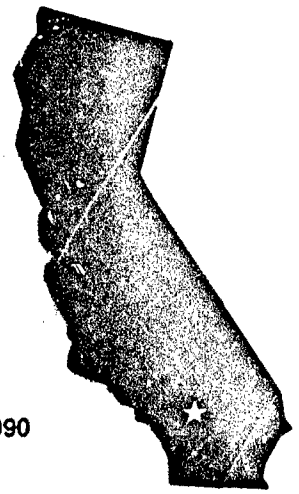
Remedial Investigation/ Feasibility Study (RI/FS)

Environmental investigation activities that include field work and compilation of existing data have been completed at five sites in 1990. These sites include the North Post Site, the landfill, fire training pits, Nike Sites B and C, and Fairbanks Terminal. Contaminants in the North Post Site are polycyclic aromatic hydrocarbons and petroleum/oil/lubricants.

Remedial Design/ Remedial Action (RD/RA)

RD/RA work will begin after completion of RI/FS activities.

George Air Force Base
Victorville, California



Service: Air Force

Size: 5,347 Acres

HRS Score: 33.62

Base Mission: Tactical fighter operations; Train aircraft and maintenance personnel; Maintain aircraft and ground support

IAG Status: Pre-ROD IAG signed 1990

Action Dates: PA/SI completed 1986; RI/FS initiated 1986; Placed on NPL 1990

Contaminants: Petroleum/oil/lubricants, VOCs, heavy metals

Funding to Date: $11.9 million

Preliminary Assessment/ Site Inspection (PA/SI)

During a PA/SI, the Air Force identified several potentially contaminated areas. These sites include the Waste POL Leach Field, the Fire Training Area, the Hazardous Waste Storage Yard, the STP Percolation Ponds, the Abandoned Waste Fuel Dry Well, the Southeast Disposal Area, the Northeast Disposal Area, and the Industrial/Storm Drain. These sites were investigated further in 1986 and 1988 under the IRP.

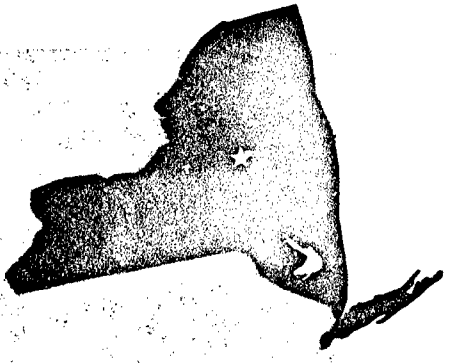
Remedial Investigation/ Feasibility Study (RI/FS)

RI field studies were conducted in 1986 and 1988. Results indicate POL, VOC, and heavy metal contamination of soils in several areas, and TCE and radionuclide contamination of ground water. The radioactive materials are believed to be naturally occurring within the region. Ground water monitoring is being conducted to confirm previous findings. FSs are planned for the POL leach field and the fire training areas within the Northeast Disposal Area. An RI/FS is planned for the JP-4 spill site on ground water discovered during the site discovery of the Industrial/Storm Drain.

Remedial Design/ Remedial Action (RD/RA)

The treatment system for the Northeast Disposal Area was constructed in 1990. The RA will consist of extracting the TCE-contaminated ground water and treating it by using air stripping. The RA for the Industrial/Storm Drain was initiated in 1990 and will be completed in 1991. Contaminated sludge and soil will be removed to preclude contaminant migration to ground water.

Griffiss Air Force Base
Rome, New York



Service:	Air Force
Size:	5,836 Acres
HRS Score:	34.20
Base Mission:	Air refueling operations; Long-range bombardment
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	PA/SI completed 1981; Placed on NPL 1987; RI/FS scheduled for initiation 1991
Contaminants:	VOCs, heavy metals, greases, degreasers/caustic cleaners, dyes, penatrants, solvents
Funding to Date:	$7.31 million

Preliminary Assessment/ Site Inspection (PA/SI)

The Mohawk River borders the base on the west and south. A PA/SI identified 19 sites containing hazardous materials from past disposal activities. Four sites were recommended for an RI/FS. The study detected surface contamination at the Tank Farm and potential ground water contamination from dry wells and a lindane spill.

Remedial Investigation/ Feasibility Study (RI/FS)

Confirmation studies began in October 1987. Initial studies detected contaminated ground water in a limited area near Landfill 1; PCB-contaminated soils at Building 112; fuel product contamination of soils and ground water at the Tank Farm; heavy metal contamination of soils in the Battery Disposal Pits; and VOC contamination of ground water at Landfill 7.

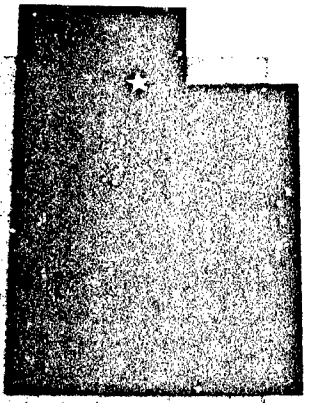
Under the IAG, the RI/FS work plan is scheduled for submission to EPA and the State of New York in 1991. The RI/FS will begin after the work plan has been approved. Twenty-four areas are proposed for inclusion in the RI/FS, including all off-base areas containing wells that have been contaminated with glycols.

Remedial Design/ Remedial Action (RD/RA)

Several interim remedial actions have been taken on base. In 1985-86, contaminated soil was removed from several IRP sites. Several USTs were removed from the Tank Farm and contaminated soil was removed from the Battery Acid Disposal Pits in 1987. Additional USTs were removed in 1988. RAs in 1989 included modifications to a landfill cap and the removal of several USTs. Contaminated soil from an area adjacent to an aircraft nosedock was removed in late 1990.

An off-base water distribution to replace the impacted private domestic wells was designed in 1990. Construction of the system is scheduled for completion in 1991.

Hill Air Force Base
Ogden, Utah



Service:	Air Force
Size:	6,666 Acres
HRS Score:	49.24
Base Mission:	Logistics for weapons systems
IAG Status:	Initiated and expected to be signed January 1991
Action Dates:	RI/FS initiated 1985; Placed on NPL 1987; PA/SI ongoing
Contaminants:	VOCs, sulfuric and chromic acids, solvents, petroleum wastes
Funding to Date:	$16.67 million

Preliminary Assessment/ Site Inspection (PA/SI)

The IRP includes investigation and cleanup activity at 34 sites on base, 5 Air Force sites off base, and 2 private off-base sites. Of the 34 on-base sites, 12 are grouped into 5 geographic areas (operable units) along the northeast, south, and west sides of the base.

Operable Unit 1 contains Landfills #3 and #4, chemical disposal pits #1 and #2, and the fire training area. Pollutants in these sites include industrial waste water treatment plant sludges, liquid chemicals (primarily hydrocarbons), and other hazardous and municipal wastes. Operable Unit 2 includes chemical disposal pit #3, which received TCE and other solvents and sludges. Operable Unit 3 comprises Berman Pond, several USTs that leaked solvents and sodium hydroxide, and drying beds for industrial wastewater treatment plant sludges. Operable Unit 4 consists of Landfills #1 and #2. Although no hazardous waste has been detected, TCE was dumped along a road near these sites. Operable Unit 5 is the Tooele Army Rail Shop and is contaminated by paint stripping and other industrial activities.

The Air Force sites off base include two landfills, Chemical Disposal Pit #4, an herbicide orange test-site, the Utah Test and Training Range (UTTR) EOD site, and the Little Mountain Test Annex industrial sludge disposal site. Landfill #5 received hazardous waste, while the other landfill received municipal trash. Chemical Disposal Pit #4 primarily received petroleum hydrocarbons. The herbicide-orange test-site was found to be uncontaminated. The UTTR site received wastes from burning ordnance and rocket motors. The Little Mountain site holds a concrete-lined sludge bed containing wastewater treatment plant sludges.

A private site off base on Layton Ranch received chromium-contaminated soil from Hill AFB. The contamination has been removed and the site is undergoing RCRA clean closure. A second private off-base site contains agricultural field drains contaminated with low levels of TCE (20 ppb), possibly from Hill AFB. Assessment of the health risks is being planned.

The initial PA for Hill AFB was completed in 1982. Subsequent SIs were conducted in 1984 and 1986-87. Fourteen sites at Hill AFB, two UTTR sites, and one site at Little Mountain were evaluated. As a result, Hill AFB was placed on the NPL in July 1987 with 12 sites grouped into 5 operable units. The UTTR and Little Mountain sites were not placed on the NPL.

Since NPL placement, Hill AFB and UTTR sites have been identified. Currently, 11 Hill AFB and 3 UTTR sites are in various stages of PA/SI studies.

Remedial Investigation/ Feasibility Study (RI/FS)

The RI/FS was initiated in March 1985. The five operable units at Hill AFB are in various stages of RI/FS study. All operable units experience contaminant migrating off base through the shallow ground water. The deeper drinking water aquifer does not seem to be

Hill Air Force Base
Ogden, Utah

(Continued)

affected. Two storm water retention ponds and the Little Mountain sludge drying bed also are being studied.

The RI/FS for Operable Unit 1 has identified at least 14 VOCs in ground water, including chlorinated-ethenes, ethanes, benzene, methyl ethyl ketone, and toluene. Concentrations range from 160 to 27,000 ppb. Chromium has been measured at levels as high as 1,900 ppb. Lower levels of contaminants are migrating off base. Continued RI studies will focus on off-base migration and the potential for migration to deeper aquifers.

The RI/FS for Operable Unit 2 has detected nine dense non-aqueous phase liquid contaminants, of which TCE is by far the most prevalent at 1,700,000 ppb. Other VOCs include chlorinated-methanes, -ethenes, -ethanes, toluene, and acetone. Off-base contamination was discovered in the shallow aquifer, including trichloroethene at 600 ppb. RI/FS studies have included pump tests and treatability analysis for these wastes. The RI studies are complete and the report is being prepared.

The RI/FS for Operable Unit 3 found five VOCs in shallow ground water, including highs of 1,100 ppb of 1,1,1-TCA, 200 ppb of TCE, 300 ppb of cadmium, 1,500 ppb of chromium, and 3,000 ppb of lead. The contaminants may have migrated off base to the Layton Ranch field drains. RI studies at this unit will assess potential migration to off-base areas and to deeper aquifers. A storm water retention pond also is being studied.

The RI/FS for Operable Unit 4 found four VOCs in shallow ground water, including highs of 10,000 ppb of TCE on base and 200 ppb off base. Other VOC concentrations are much lower. Contaminant distribution patterns indicate roadside dumping was responsible rather than landfill deposits. The field work for the RI is almost complete. Attention will focus on interpretation, modeling, risk assessment, and the FS.

The RI/FS for Operable Unit 5 began in the summer of 1989. No contamination was found in on-base shallow ground water, but five VOCs were detected in soil gas. Three of these VOCs contain 1,1,-TCA, TCE, 1,2-dichloroethene, 1,1-dichlorethane, and chloroform. Four of these five chemicals have been detected off base in a spring, but concentrations are within or just above drinking water standards. Hill AFB is monitoring the spring water. A storm water retention pond is being studied and additional field work is planned.

The RI is complete for the Little Mountain sludge beds. Contaminants, predominantly phenol and heavy metals, have not migrated beyond the ditch behind the beds. Therefore, risk to the environment and humans is negligible. A decision document for no further action is recommended.

RODs are expected to be signed in 1993, completing the RI/FS process. The Air Force, EPA, and the State of Utah have been negotiating an IAG since 1988. Signature of the IAG by federal and state regulators is expected in January 1991.

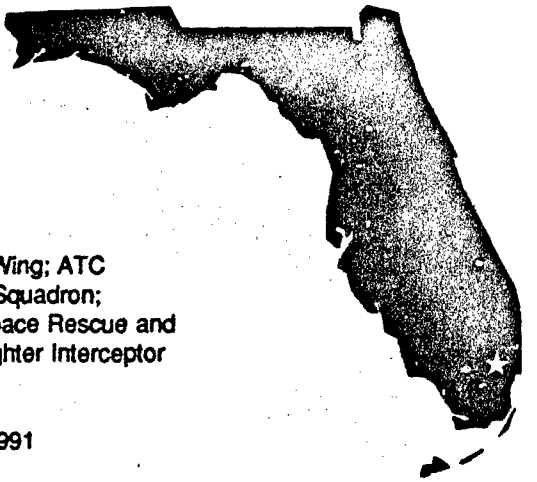
Remedial Design/ Remedial Action (RD/RA)

On base, Hill AFB has initiated remedial actions at Operable Units 1, 2, and 3, as well as at three other sites.

IRAs at Operable Unit 1 were performed to lessen off-base contaminant migration. Hill AFB capped 70 acres of landfill, extracted and treated contaminated ground water from seven wells and two infiltration galleries, and installed a mile-long bentonite slurry wall. More than 50 million gallons of contaminated ground water have been treated. As a result of these actions, VOC concentrations in off-base seeps decreased 99 percent since 1984.

Off base, contaminated ground water from Operable Unit 2 has been treated by activated carbon since 1987. Two property owners have been hooked up to municipal wells and supplied with irrigation water. Recovery and disposal of organic phase liquids at Operable Unit 2 is being planned for 1991. At Operable Unit 3, Berman Pond was capped. In 1989-90, at a JP-4 spill site, soil venting removed 190,000 pounds of fuel. Two old PCB spill sites were excavated and disposed of in 1990.

Homestead Air Force Base
Homestead, Florida



Service: Air Force

Size: 2,916 Acres

HRS Score: 42.40

Base Mission: Tactical Air Command; F-16 Fighter Wing; ATC sea-survival school; Tactical Control Squadron; Naval Security Group Activity; Aerospace Rescue and Recovery Squadron (AFRES) and Fighter Interceptor Group operations

IAG Status: Initiated and expected to be signed 1991

Action Dates: PA/SI completed 1986; RI/FS initiated 1987; Placed on NPL 1990

Contaminants: Metal plating wastes, VOCs, cyanide

Funding to Date: $3.9 million

Preliminary Assessment/ Site Inspection (PA/SI)

The area around Homestead AF3 is mostly agricultural. Wastes have been disposed of onsite since the inception of the facility in 1942. Electroplating operations were conducted onsite, and plating wastes containing heavy metals and cyanides were allegedly disposed of directly on the ground.

The PA/SI identified three major areas of concern: the Fire Protection Training Area, the Residual Pesticide Disposal Area, and the Electroplating Disposal Area.

Remedial Investigation/ Feasibility Study (RI/FS)

The RI/FS was initiated in August 1987, and the Fire Protection Training Area, Electroplating Waste Disposal Area, and Residual Pesticide Disposal Area were studied. IRP studies have detected VOCs and high concentrations of ethyl ether in ground water at the sites and also downgradient from Fire Training Area 3. Approximately 5,500 gallons of ethyl ether were disposed of in the area in January 1984 by the Federal Drug Enforcement Agency and Dade County. Analytical results from the RI showed ground water contaminant levels of 26 ug/L benzene, 25 ug/L chlorobenzene, and 52 ug/L ethylbenzene. Sampling a year later detected ethyl ether and lower concentrations of benzene and chlorobenzene, while ethylbenzene was not detected.

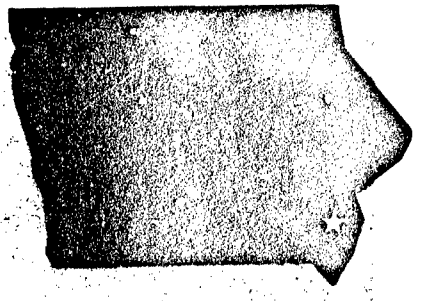
Additional analysis showed heavy metals in the ground water at concentrations below allowable maximum levels. Cyanide was detected at 24 ug/L in one monitoring well. Concentrations of sealant metal and cyanide were found in soil and sediment samples. The metals concentrations were comparable to those commonly found in the background soils.

From 1977 to 1982, at the Residual Pesticide Disposal Area, pesticides were sprayed or dumped onto the area, and then chlorine bleach and ammonia were applied to accelerate the decomposition of the pesticide compounds. Analytical results showed low levels of organochlorine insecticides in surface soil samples. No organochlorine pesticides or chlorinated herbicides were detected in the ground water samples.

Remedial Design/ Remedial Action (RD/RA)

IRA was taken in 1987 to remove approximately 25 USTs from various IRP sites. Additional RI/FS investigations to determine the extent of contamination and, if necessary, the RA alternatives, will begin in 1991. RD/RA work also is expected to begin in 1991.

Iowa Army Ammunition Plant
Middletown, Iowa



Service:	Army
Size:	19,127 Acres
HRS Score:	29.73
Base Mission:	Load-Assemble-Pack a variety of conventional munitions and fusing systems
IAG Status:	Pre-ROD IAG signed 1990 with EPA
Action Dates:	PA/SI completed 1980; RI/FS initiated 1981; Placed on NPL 1990
Contaminants:	VOCs, heavy metals, waste solvents, explosives containing sludges
Funding to Date:	$3.50 million

Preliminary Assessment/ Site Inspection (PA/SI)

Mason and Hangar-Silas Mason Company, Inc. currently operates the Iowa Army Ammunition Plant (IAAP). A PA/SI assessed the impact on the environment of the use, storage, treatment, and disposal of toxic and hazardous materials and defined conditions that may adversely affect health and welfare or result in environmental degradation. Four major contamination areas were identified: Line 1, the Load-Assemble-Pack Areas, the Demolition Area, and the Waste Lagoons.

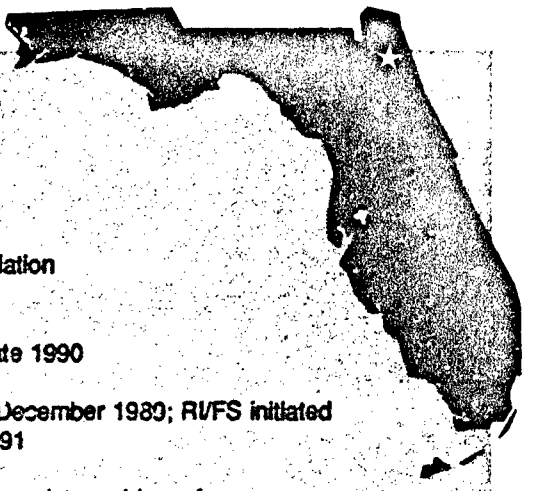
Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS was initiated in February 1981, and a contamination survey was completed in October 1982. Explosives contamination was found in surface and ground waters within the Brush Creek drainage system. The former Line 1 impoundment and the Pinkwater Lagoon adjacent to Line 800 were identified as sources of contamination. RDX was migrating offsite through Brush and Spring Creeks. A follow-on environmental survey was completed in August 1984 to assess further the contamination in the Line 1 and Line 800 areas. The endangerment assessment and FS for Lines 1 and 800 were completed in July and August 1989, respectively. A Federal Facilities Compliance Agreement between the Army and EPA was signed in April 1988.

Remedial Design/ Remedial Action (RD/RA)

Closure of the inert landfill Trench 5 was completed in November 1989. Closure of Line 6 gravel filter bed and drainage ditch was completed in August 1990.

Jacksonville Naval Air Station
Jacksonville, Florida



Service:	Navy
Size:	3,820 Acres
HRS Score:	32.08
Base Mission:	Provide services and materials for aviation activities and aircraft overhaul
IAG Status:	Initiated and expected to be signed late 1990
Action Dates:	PA completed 1985; Placed on NPL December 1989; RI/FS initiated 1989; SI scheduled completion for 1991
Contaminants:	Heavy metals, petroleum/oil/lubricants, paints, acids and caustic, phenols, waste solvents, radioisotopes and low-level radioactive radium paint wastes, cyanide
Funding to Date:	$1.35 million

Preliminary Assessment/ Site Inspection (PA/SI)

A PA identified 38 sites on NAS Jacksonville. Four additional sites have been identified and added. The SI investigated 19 sites. A TRC has been organized and held its first meeting in May 1989.

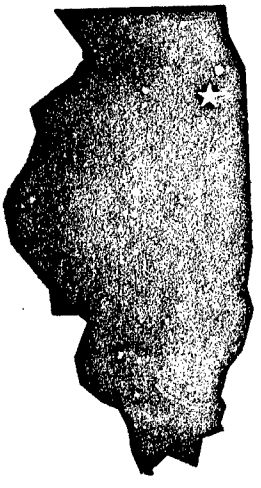
Remedial Investigation/ Feasibility Study (RI/FS)

The Navy projects that a minimum of 13 of the 42 sites will be investigated under an RI/FS. An FFA was signed in October 1990. An RI/FS work plan and project management plan were submitted for review in September 1990. NAS is currently a test site for the development and use of the Tri-service Cone Penetrometer project.

Remedial Design/ Remedial Action (RD/RA)

A Removal Action was completed at Site 27, the PCB Transformer Pad, and another at Site 26, the oil/solvent pits.

Joliet Army Ammunition Plant (LAP Area and Manufacturing Area)
Joliet, Illinois



Service: Army

Size: 36 Square Miles

HRS Score: 35.23 (LAP area)
32.08 (manufacturing area)

Base Mission: Manufacture and Load-Assemble-Pack (LAP) explosives and explosive-filled munitions

IAG Status: Pre-ROD IAG signed 1989 with EPA and State of Illinois

Action Dates: PA/SI completed 1978; RI/FS initiated 1981; Manufacturing Area placed on NPL 1987; LAP Area placed on NPL 1989

Contaminants: Munitions-related wastes, VOCs, heavy metals

Funding to Date: $9.70 million

Preliminary Assessment/ Site Inspection (PA/SI)

Joliet Army Ammunition Plant (JAAP), consisting of a Manufacturing Area and a Load-Assemble-Pack (LAP) Area, is a government-owned/contractor-operated (GOCO) facility. Since 1977, the facility has been maintained in standby condition.

The PA/SI identified the potential presence of TNT, DNT, RDS, and tetryl, as well as nitric and sulfuric acids, toluene, and various heavy metals. Past practices may have contaminated ground and surface waters, sediment, and soil.

Remedial Investigation/ Feasibility Study (RI/FS)

Investigative studies have centered mainly on the Manufacturing Area and identified various contaminants in the ground and surface water, sediment, and soil. Additional RI/FS activities under the IAG will address 34 potentially contaminated locales in the LAP Area and 8 additional locales in the Manufacturing Area. Contaminants from past operations may have migrated offsite through surface water. No indication of contamination of off-post potable water supplies exist at this time. Field work for both the Phase 1 LAP Area and Phase 2 Manufacturing Area is scheduled for 1991.

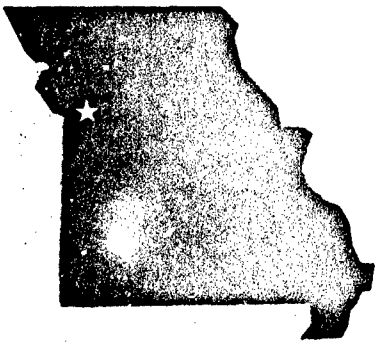
Remedial Design/ Remedial Action (RD/RA)

In 1985, more than seven million gallons of explosives-contaminated red water were removed from the Red Water Lagoon and transported offsite for disposal. Explosives-contaminated sludge and the lagoon liner also were removed, and the area was capped with clay.

Two surface impoundments in the Manufacturing Area containing ash from past incineration of explosives were recapped in 1985.

No RD/RA for the LAP Area has been developed to date.

Lake City Army Ammunition Plant (Northwest Lagoon)
Independence, Missouri



Service: Army

Size: 3,955 Acres

HRS Score: 33.62

Base Mission: Manufacture, store, and test small arms ammunition

IAG Status: Pre-ROD IAG signed 1989

Action Dates: PA/SI completed 1979; Placed on NPL 1987; RI/FS initiated 1987

Contaminants: Oils/greases, heavy metals, solvents, explosives

Funding to Date: $26.26 million

Preliminary Assessment/ Site Inspection (PA/SI)

Lake City Army Ammunition Plant (LCAAP) has manufactured, stored, and tested small arms ammunition continuously since 1941, except for a 5-year period following World War II. Virtually all waste treatment and disposal has been onsite. LCAAP has relied heavily on lagoons, landfills, and burn pits for waste disposal. Industrial operations have generated large quantities of potentially hazardous waste, including oils/greases, solvents explosives, and metals.

The Installation Assessment identified numerous waste areas on base, but because of a clay layer in the soil, no testing was recommended. However, a PA/SI identified 73 waste sites containing more than 100 individual units. These units were later consolidated into 34 sites. Field testing was conducted at seven representative areas and ground water contamination (volatile organics, explosives, and heavy metals) was detected at all seven areas. An RI/FS was recommended for the entire site.

Remedial Investigation/ Feasibility Study (RI/FS)

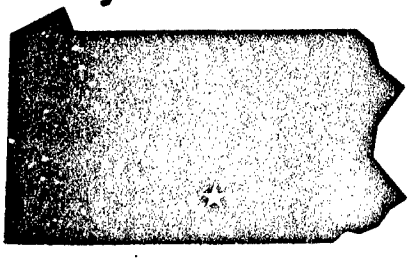
An RI/FS was initiated in September 1987, and the study confirmed contamination of the ground water above federal and state criteria beneath the entire site. Drinking water wells of private residents immediately north showed very low volatile organic contamination. Additional off-post sampling is planned. A Phase 2 RI/FS was initiated in 1989 to determine the extent of ground water contamination and to investigate source locations.

Remedial Design/ Remedial Action (RD/RA)

Numerous explosive waste lagoons at LCAAP have been closed since 1986. Air strippers are currently being installed in the drinking water supply facilities at the plant.

Letterkenny Army Depot (PDO Area and Southeast Area)

Franklin County and Chambersburg, Pennsylvania



Service: Army

Size: 19,511 Acres

HRS Score: 37.51 (PDO Area)
34.21 (SE Area)

Base Mission: Maintain and test tracked vehicles and missiles; Issue chemicals and petroleum; Store, demilitarize, and modify ammunition

IAG Status: Pre-ROD IAG signed 1989 with EPA and State of Pennsylvania

Action Dates: RI/FS initiated 1982; PA/SI completed 1983; Southeast area placed on NPL 1987; Property Disposal Office Area placed on NPL 1989

Contaminants: Petroleum/oil/lubricants, pesticides, solvents, cleaning agents, metal plating wastes, phenolics, VOCs, painting residues and thinners, explosives

Funding to Date: $12.07 million

Preliminary Assessment/ Site Inspection (PA/SI)

A PA/SI identified 14 potentially contaminated sites, all targeted for an RI/FS. Significant contamination of ground water by aromatic hydrocarbons and volatile chlorinated hydrocarbons has been found. Elevated levels of contaminants have migrated off base. An SI was updated for 16 SWMUs during May-July 1990. The SI report is scheduled for January 1991.

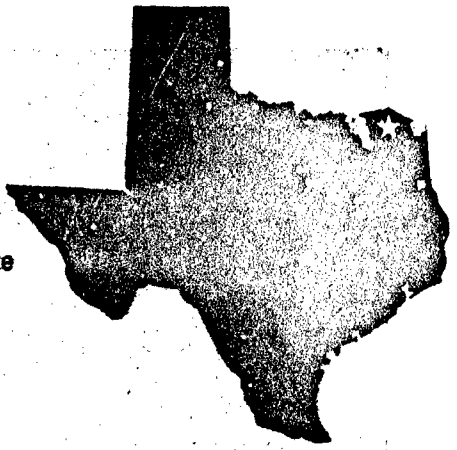
Remedial Investigation/ Feasibility Study (RI/FS)

The RI/FS was initiated in June 1982, and confirmed contamination at 11 sites. Ground and surface waters have been contaminated with chlorinated hydrocarbons, chlorinated organic solvents, toluene, and chloroform. Soils have been contaminated by xylene, heavy metals, chloroform, aromatic and chlorinated hydrocarbons, and chlorinated organic solvents. Contaminants have migrated beyond depot boundaries in the southeastern area. Additional field work for the RI/FS will be conducted during 1990-91 to satisfy regulatory requirements noted during review of pre-IAG RI/FS efforts. A dye study is underway to define contaminant flow. The quality of the ground water at the IWTP lagoon is being assessed under RCRA requirements.

Remedial Design/ Remedial Action (RD/RA)

An alternate water system was provided in September 1987. An ISV system was used to determine the ability of the water system to treat soils. This testing indicated limited potential for the ISV unit due to the characteristics of the site. Low-temperature thermal stripping is being considered for soil remediation. Ground water treatment also will be considered at both NPL sites. Ground water treatment at the former IWTP lagoon area was initiated in June 1989. The interim ground water treatment system will be expanded during October-December 1990. The contract for closure of the lagoon has been awarded, with closure operations expected in 1991.

Lone Star Army Ammunition Plant
Texarkana, Texas



Service:	Army
Size:	15,546 Acres
HRS Score:	31.85
Base Mission:	Load-Assemble-Pack, renovate, and demilitarize ammunition and explosives
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	PA/SI completed 1978; Placed on NPL 1987; RI/FS initiated 1987
Contaminants:	Munitions-related wastes, heavy metals, petroleum/oil/lubricants
Funding to Date:	$3.42 million

Preliminary Assessment/ Site Inspection (PA/SI)

Lone Star AAP is a GOCO plant run by Day and Zimmerman, Inc., the employs approximately 2,000 people. Past disposal practices included burial of drummed and undrummed wastes in landfills, wells, and cisterns; disposal of explosives in a demolition area, black powder dump, and burning ground; and the discharge of wastes to chemical sludge ponds, settling pits, unlined pinkwater lagoons, and neutralization ponds. Potential ground water contaminant migration off post could affect approximately 200 private wells used for potable purposes located within 2 miles of the post.

The PA/SI found nitrobodies and heavy metals in manufacturing, disposal, demolition, and lagoon areas and determined the contaminants could migrate beyond base boundaries through surface and subsurface waters. A follow-on indepth investigation was recommended to determine if contaminants are migrating off post.

Remedial Investigation/ Feasibility Study (RI/FS)

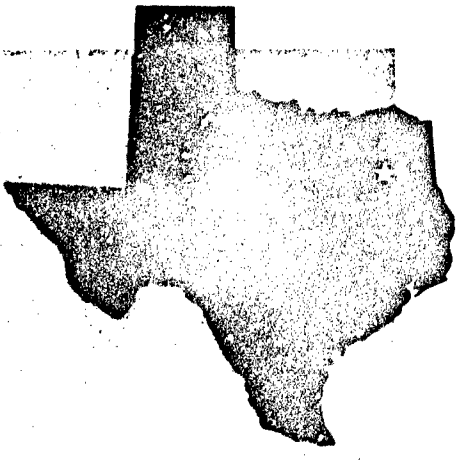
An RI/FS was initiated in September 1987. A contamination survey investigated 10 areas of potential contamination and discovered heavy metal contamination in ground and surface waters and surface soils. Small concentrations of sulfates, chlorides, DNT, and dieldrin were detected in the ground water. The survey concluded that no contamination was migrating off post and recommended ground water monitoring for several sites. A follow-on RI recommended cleanup FSs for seven sites and further investigation of four sites. The remaining sites contained no significant contamination and no further investigation was recommended. State and federal regulators are reviewing the RI findings and recommendations.

Leaking underground fuel tanks at the installation gas station have been drained and fueling operations have been moved to another location. The soils and ground water are being investigated to determine the extent of the fuel contamination. Interim removal design plans are under contract to be developed as soon as the extent of contamination is determined.

Remedial Design/ Remedial Action (RD/RA)

The Chromic Acid (North G Area) and O-Line (South O Area) ponds have been closed and are being monitored.

Longhorn Army Ammunition Plant
Karnack, Texas



Service: Army

Size: 8,433 Acres

HRS Score: 39.83

Base Mission: Load-Assemble-Pack pyrotechnic and illuminating/signal munitions and solid propellant rocket motors

IAG Status: Not started

Action Dates: PA/SI completed 1980; Placed on NPL 1990; RI/FS initiation expected 1990; RFA performed 1988; RCRA permit final 1990

Contaminants: Heavy metals, VOCs, munitions-related wastes, petroleum/oil/lubricants

Funding to Date: $891,000

Preliminary Assessment/ Site Inspection (PA/SI)

The Longhorn AAP primarily produced 246-TNT flake and acid for munition production during World War II. Flake production ceased and the current mission commenced in 1945.

A PA/SI recommended that an environmental survey be conducted. A contamination survey and follow-up studies identified contamination of onsite surface and ground water and soils that emanate from the Active Burning Ground/ Rocket Motor Washout Pond Area, the TNT Production Area, the Flashing Area, the Landfill (old), TNT burial sites, and old Burning Grounds.

An RFA in 1988 identified many of the same sites as SWMUs with a potential for release.

Remedial Investigation/ Feasibility Study (RI/FS)

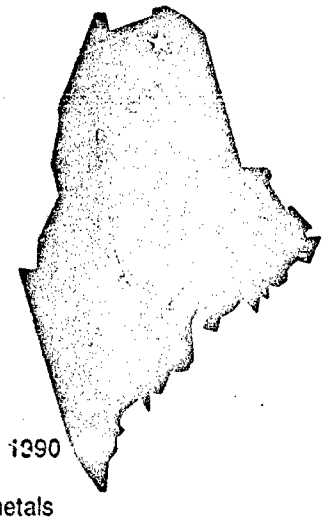
A preliminary survey confirmed two sources for VOC ground water contamination beneath the Active Burning Ground and identified a third potential source. The contaminant plume has not moved significantly in the last 30 years nor migrated off post. Additional RI/FS work is recommended to define further water and soil contamination at the site and to identify remedial actions.

An RFI work plan will be submitted to regulators in early 1991.

Remedial Design/ Remedial Action (RD/RA)

In 1984, the Rocket Motor Washout Pond Area was capped. Additional sources of contamination have been identified within the Active Burning Ground Area that will require further investigation.

Loring Air Force Base
Limestone, Maine



Service:	Air Force
Size:	9,000 Acres
HRS Score:	34.49
Base Mission:	Headquarters to Strategic Air Command's 42nd Bombardment Wing
IAG Status:	Initiated and expected to be signed 1991
Action Dates:	PA/SI completed 1984; RI/FS initiated 1986; Placed on NPL 1990
Contaminants:	Waste oils, fuels, spent solvents, PCBs, pesticides, heavy metals
Funding to Date:	$5.73 million

Preliminary Assessment/ Site Inspection (PA/SI)

Historically, wastes have been burned or buried in landfills. Surface water less than 3 miles downstream is used for recreational activities and fresh water wetland is 500 feet from Landfill 3. A PA/SI identified four potentially contaminated sites.

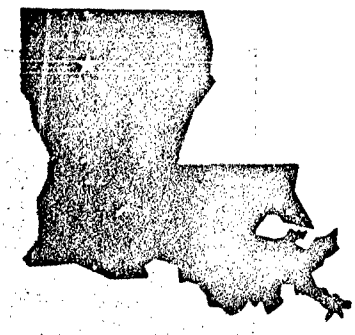
Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS was initiated in October 1986 and disclosed that monitoring wells on base were contaminated with methylene chloride, TCE, carbon tetrachloride, and barium. The wells are on or downgradient from several widely scattered disposal areas. Two of these areas are old, adjacent gravel pits that were used for landfill and cover 190 acres. Landfill 2 was used for disposal of hazardous wastes from 1956 to 1974, and Landfill 3 saw similar use from 1974 to the early 1980s. In the 0.5-acre Fire Department Training Area, large quantities of hazardous materials were disposed of through landfilling until 1968. From 1968 to 1974, these materials were disposed of by burning. The 600-acre flightline area, with its industrial shops and maintenance hangars, was a primary generator of hazardous waste on base. While some generated wastes were disposed of on the ground or in storm and sewer drains in the area, most wastes were disposed of elsewhere. Soils in the flightline area also contain significant amounts of fuel, oil, and various VOCs. An estimated 1,200 people obtain drinking water from wells within 3 miles of hazardous substances on base. The nearest (non-potable) well is less than 500 feet from the location of buried transformers. According to the 1986 IRP report, water in the flightline drainage ditch, a 2,500-foot portion of a tributary to Greenlaw Creek, is contaminated with methylene chloride, tetrachloroethylene, 1,1-TCA, TCE, and iron. The ditch receives storm water discharges from several sewers draining the flightline area and the nose dock area, both locations where fuels were handled.

Remedial Design/ Remedial Action (RD/RA)

RA was initiated in 1989. Remedial actions in 1990 included contaminated soil and UST removals. Planned RAs for 1991 include additional contaminated soil treatment, UST removals, and landfill capping.

Louisiana Army Ammunition Plant
Doyline, Louisiana



Service: Army

Size: 14,974 Acres

HRS Score: 30.26

Base Mission: Load-Assemble-Pack operations; Manufacture shell metal parts

IAG Status: Pre-ROD IAG signed 1989

Action Dates: PA/SI completed 1978; RI/FS initiated 1985; Placed on NPL 1989

Contaminants: Oils, grease, degreasers, phosphates, solvents, metal plating sludges, acids, flyash, TNT and RDX explosives

Funding to Date: $44.0 million

Preliminary Assessment/ Site Inspection (PA/SI)

The Louisiana Army Ammunition Plant (LAAP) is owned by the government and is operated by the Thiokol Corporation. LAAP currently employs 1,680 people.

The PA/SI concluded that the explosive loading and disposal areas of the plant were heavily contaminated with explosive wastes, primarily TNT, RDX, and tetryl. In addition, sumps and unlined ponds in the metal parts production area were contaminated with waste from plating and fabrication operations. No explosives were found in the surface water leaving the installation. In addition, no indication of contaminant migration off the installation through ground or surface waters was found. Due to the high potential for future migration of the explosive contamination, a water quality monitoring program was recommended.

Remedial Investigation/ Feasibility Study (RI/FS)

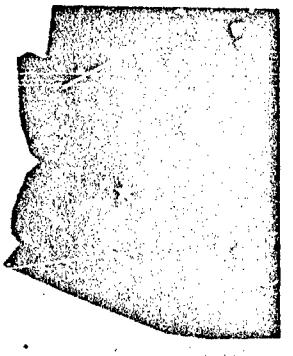
The first stage of the RI/FS work consisted of a preliminary contamination survey and was completed in 1982. The actual RI/FS was initiated in 1985 with a follow-on RI completed in 1987. The investigations indicated that no off-post migration had occurred. On-post wells, however, were contaminated with explosives, including TNT, RDX, and HMX. The contaminated ground water had reached the southern boundary, so as part of a follow-on RI, four wells were installed off the southern boundary of the installation in 1988.

The resulting analysis indicated that the explosives-contaminated ground water had migrated off the southern post boundary. Consequently, a monitoring program for drinking water wells off the northern and southern boundaries of LAAP has been established.

Remedial Design/ Remedial Action (RD/RA)

Incineration of explosives-contaminated soil and treatment of contaminated surface water in Area P began in 1987. The incineration of 101,929 tons of soils was completed in March 1990. Closure activities and revegetation of the site were completed during the fourth quarter of 1990.

Luke Air Force Base
Glendale, Arizona



Service:	Air Force
Size:	4,198 Acres
HRS Score:	37.93
Base Mission:	Aircraft maintenance
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	PA/SI completed 1985; RI/FS initiated 1986; Placed on NPL 1990
Contaminants:	Petroleum/oil/lubricants, VOCs
Funding to Date:	$2.6 million

Preliminary Assessment/ Site Inspection (PA/SI)

Luke AFB is located in the Sonoran Desert and rests on a broad alluvium-filled valley within the western portion of the Phoenix Basin. During the PA/SI, the Air Force identified a number of potentially contaminated areas, including five sites where hazardous wastes were disposed of. These sites were subsequently investigated in 1983 and 1986 as part of the IRP.

Remedial Investigation/ Feasibility Study (RI/FS)

Two old fire training sites in bermed areas were used to simulate aircraft fire by burning POL wastes. Below surface, soil borings contained elevated levels of oil and grease, and low levels of volatile organics. These findings prompted a pre-design study to determine the extent of contamination and gather the requisite information for conducting a soil vapor extraction pilot study and the subsequent removal action. Three ground water monitoring wells were installed, one presumed to be upgradient and two downgradient. The water table was measured at 360 feet below ground surface. No significant contaminants were detected. In addition, the waste treatment annex landfill was discovered eroding from the banks. An inspection was conducted and a stabilization action was planned.

Remedial Design/ Remedial Action (RD/RA)

RAs to date include closing a former waste oil and contaminated JP-4 fuel storage site. The subject tanks were removed and the area was capped with concrete. Monitoring wells are in place. In addition, the leaking UST at the base service station was removed. Soil vapor extraction is planned for the North Fire Training Area. The pre-design field work is complete. The pilot study was initiated in 1990 and the full-scale system will be operational in 1991.

March Air Force Base
Riverside, California

Service:	Air Force
Size:	7,000 Acres
HRS Score:	31.94
Base Mission:	Aircraft maintenance and repair; Refueling operations; Training activities
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	PA/SI completed 1984; RI/FS initiated 1986; Placed on NPL 1990
Contaminants:	VOCs, heavy metals
Funding to Date:	$4.08 million



Preliminary Assessment/ Site Inspection (PA/SI)

Soils on March AFB are contaminated with organics and metals and primary ground water contaminants are TCE and perchloroethylene (PCE). An estimated 11,600 people obtain drinking water from municipal wells within 3 miles of hazardous substances on March AFB. The base also is adjacent to light industrial, agricultural, and residential areas.

As part of the PA/SI, the Air Force investigated 39 potentially contaminated sites. The sites included three fire training areas, seven inactive landfills, underground solvent storage tanks, an engine test cell, and spills. Significant contamination was found at 7 of the 39 sites. Three regions of ground water contamination beneath the base also were identified.

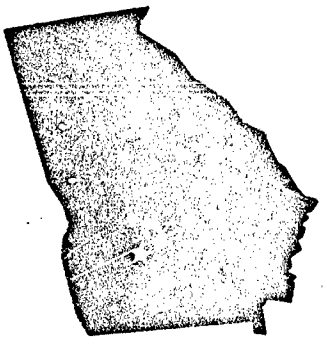
Remedial Investigation/ Feasibility Study (RI/FS)

RI/FS efforts are currently underway. On-base Well No. 1 was contaminated with trichloroethylene, tetrachloroethylene, and cis-1,2-dichloroethylene at levels that exceed state drinking water standards. Therefore, Well No. 1 was taken out of service. An RI/FS status report is due in early 1991. Ground water concentrations range from 170 ppb PCE and 110 ppb TCE on base, to 15 ppb TCE in one off-base private well. The other contaminated private well concentration is 5 ppb TCE on average. The private well owner has been provided with bottled drinking water since the contamination was discovered.

Remedial Design/ Remedial Action (RD/RA)

In 1989, activities supporting design of a system for removing TCE from ground water at six sites began. RD/RA activities in 1990 included the removal of a hydrant fueling system, contaminated soil treatment, and pumping and treatment of free product beneath the hydrant fueling system. Planned RD/RA for 1991-92 include UST removals, contaminated soil treatment, and a pump and treat system for free pro-duct at the Engine Test Cell.

Marine Corps Logistic Base
Albany, Georgia



Service: Navy

Size: 3,327 Acres

HRS Score: 44.65

Base Mission: Supply center; Training center

IAG Status: Initiated and expected to be signed late 1990

Action Dates: PA/SI completed 1985; Placed on NPL 1989; RI/FS initiated 1989

Contaminants: Waste oil and fuels, solvents, mineral spirits, PCBs, paints and thinners, stripping compounds, DDT, cleaning solutions

Funding to Date: $1.75 million

Preliminary Assessment/ Site Inspection (PA/SI)

A PA/SI identified eight potential contamination sites, six of which were recommended for confirmation studies. Sites included landfills, a storm sewer and canal, and a leaking drum storage area. Nine sites are being addressed under the SI.

Eight sites have been added following the RFI. Seventeen sites are being addressed under an RI/FS.

Remedial Investigation/ Feasibility Study (RI/FS)

Phase I of the RFI for nine sites was completed in 1989. Results of the RFI will be used for the RI, since all installation restoration sites also are included under the RFI as SWMUs and data required for the RFI is similar to that required for an RI. Old sludge drying beds are currently being corrected under RCRA. A draw-down test was performed on the recovery well that extracts water from the contaminated Upper Ocala Aquifer. A conceptual design was then completed for the recovery system. At the Industrial Waste Treatment Plant (IWTP), quarterly ground water monitoring continues as part of the RCRA corrective action.

The first meeting of the TRC was held on September 11, 1989. The Navy, EPA, and Georgia Environmental Protection Division negotiated an FFA.

Remedial Design/ Remedial Action (RD/RA)

Three recovery well have been installed at the IWTP and old sludge drying beds were capped. Pumping tests and computer modeling were performed on the recovery wells at the IWTP. Results indicate that two additional recovery wells are necessary to capture the entire plume. These wells are scheduled for installation in 1991.

Mather Air Force Base
Sacramento, California



Service:	Air Force
Size:	5,934 Acres
HRS Score:	28.90
Base Mission:	Electronic Warfare Officer Training; Navigator Training
IAG Status:	Pre-ROD IAG signed 1989 with EPA and State of California
Action Dates:	PA completed 1982; RI/FS initiated 1984; Placed on NPL 1989; SI completed 1990
Contaminants:	Solvents, cleaners, VOCs, plating wastes
Funding to Date:	$15.04 million

Preliminary Assessment/ Site Inspection (PA/SI)

Water quality analyses of drinking water in wells on and near the base indicate the presence of TCE and other solvents in the shallow ground water system. In 1979, drinking water contamination was first discovered when sampling from the production well at the Aircraft Control and Warning (AC&W) area confirmed the presence of TCE. To date, ground water contamination has been confirmed at the AC&W Site, the 7100 Area (southwestern corner of the base), and the West Ditch (western border of the base). Both the 7100 Area and West Ditch are suspected of causing off-base contamination.

The PA identified 23 sites as potentially contributing to contamination due to past operations and disposal practices. Twenty sites were targeted for an RI/FS. The main area of concern was contamination of the upper aquifer.

Remedial Investigation/ Feasibility Study (RI/FS)

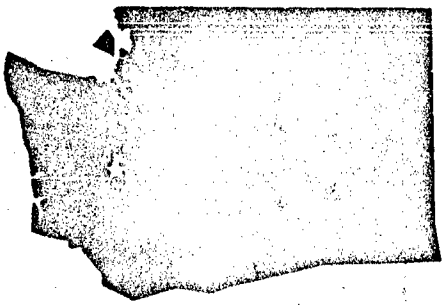
Several IRP sites at Mather AFB, termed the Group 2 Sites, are currently in the RI phase with a draft report expected in February 1992. RI work includes extensive soil and surface water sampling, well and boring installation, SOV and geophysical testing, and ground water sampling and aquifer testing.

A comprehensive water level measurement and ground water sampling program began in September 1989 and will continue for at least two more years. This program includes all current and future monitoring wells at Mather AFB. Analyses for volatile organics will be performed on all wells. Other parameters will be added on a site-by-site basis.

Remedial Design/ Remedial Action (RD/RA)

The base provided a permanent alternate drinking water supply to all homes and businesses along Happy Lane. This was completed in May 1989. Additional water connections were installed for homes along Old Placerville Road. Twenty-seven USTs suspected of leaking were excavated and the underlying soils tested. Additional RD/RA activities are expected to begin in 1991.

McChord Air Force Base (Wash Rack/Treatment Area)
Tacoma, Washington



Service:	Air Force
Size:	4,616 Acres
HRS Score:	42.24
Base Mission:	Airlift services to troops, cargo, equipment, passengers, and mail
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	PA/SI completed 1982; RI/FS initiated 1987; Placed on NPL 1987
Contaminants:	VOCs, solvents, detergents, hydraulic fluid, corrosion removing compounds, acids, pesticides, heavy metals, thinners and strippers
Funding to Date:	$10.6 million

Preliminary Assessment/ Site Inspection (PA/SI)

Almost 500,000 gallons of hazardous substances have been used and disposed of on base.

Sixty-two disposal sites were identified and 34 targeted for an SI. DCE and TCE were detected in the surface and ground water and could migrate on and off base. The base and American Lake Gardens (a private development) obtain their drinking water from the aquifer partially underlying McChord AFB. Well over 10,000 people within 3 miles of the base depend on the aquifer for their drinking water.

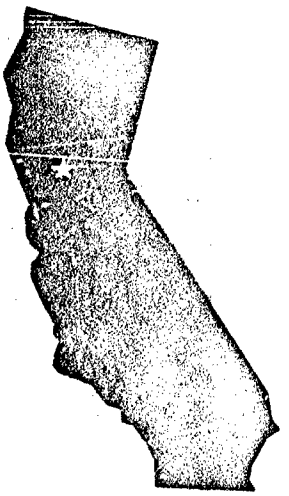
Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS was initiated in May 1987. Investigations completed to date indicate low-level contamination of ground water. Contaminant migration north and west of the base was confirmed. The contaminant plume is 200 to 1,000 feet wide and present in the water column 40 to 70 feet below the ground surface. Quantities of DCE and TCE were discovered at American Lake Gardens in excess of health department action levels In addition, public water supply wells adjacent to the base were recommended to be closed. An IAG between the installation and the regulatory community was signed as required by CERCLA. Deadlines for meeting critical milestones toward final remediation have been established and coordinated with EPA and the state. The final ROD is due in 1991.

Remedial Design/ Remedial Action (RD/RA)

A new potable water system for American Lake Gardens was completed in 1986. RD/RA activities are expected to be implemented in 1991.

McClellan Air Force Base (Ground Water Contamination)
Sacramento, California



Service: Air Force

Size: 2,950 Acres

HRS Score: 57.93

Base Mission: Logistics for aircraft, missile, space, and electronics programs

IAG Status: Pre-ROD IAG signed 1990 with EPA and State of California

Action Dates: RI/FS initiated 1984; Placed on NPL 1987

Contaminants: Organic solvents, metal plating wastes, caustic cleaners/ degreasers, paints, waste lubricants, photochemicals, phenols, chloroform, spent acids and bases, PCB-contaminated oils

Funding to Date: $61 million

Preliminary Assessment/ Site Inspection (PA/SI)

After a 1979 Air Force study detected ground water contamination, two on-base and three off-base wells were closed. Contamination has since been found in a number of off-base wells, including a municipal well. Approximately 23,000 people in the area depend on the ground water for domestic and agricultural use. A PA/SI conducted in 1981 identified 46 sites. An additional 124 potentially contaminated sites have been identified, bringing the total to 170 sites. A PA/SI for a number of additional potentially contaminated areas is being conducted. The soil and ground water contamination at McClellan AFB are primarily the result of chemical releases from land disposal facilities used for disposal of liquid, sludges, and solid wastes; discharges and accidental spills at various industrial activities and storage areas; and leakage from sumps, USTs, and industrial waste lines.

Remedial Investigation/ Feasibility Study (RI/FS)

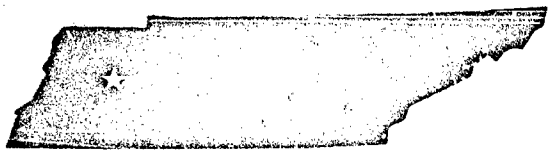
As a management solution for the efficient implementation of the RI/FS, the sites have been grouped into eight operable units. A CERCLA work plan was developed to implement the RI/FS at each operable unit. The RI/FS for the entire base is expected to be completed by the year 2002. RI work is underway in Operable Unit B, located in the southwest section of the base. Basewide investigation to define the extent of ground water contamination is also underway. Ground water contamination is primarily in the shallow aquifer 120 feet below ground surface, but has migrated to more than 350 feet in depth at some locations.

Remedial Design/ Remedial Action (RD/RA)

Several cleanup actions have been completed. The Air Force provided approximately 348 residents with hookups to an alternate water source at a cost of $3.5 million, and a carbon filtration system has been installed for base well #16 at a cost of $384,000. A ground water extraction system has been installed and 11 sites have been capped in Area D. A ground water treatment plant (GWTP) costing $3.8 million was constructed and brought on line in 1987 to treat the water. An extraction system was installed in Area C and hooked to the GWTP for a cost of $1.5 million. A contaminated building (Building 666) was dismantled and removed for a cost of $3 million.

A remedial action to control ground water contamination in Operable Unit B is underway. Additional RAs are scheduled for 1991.

Milan Army Ammunition Plant
Milan, Tennessee



Service:	Army
Size:	22,544 Acres
HRS Score:	58.15
Base Mission:	Load-Assemble-Pack, ship, and demilitarize explosive ordnance
IAG Status:	Pre-ROD IAG signed 1989
Action Dates:	PA/SI completed 1978; Placed on NPL 1987; RI/FS initiated 1987
Contaminants:	Munitions-related wastes, heavy metals, organic solvents, paints, thinners, acids
Funding to Date:	$4.47 million

Preliminary Assessment/ Site Inspection (PA/SI)

The Milan Army Ammunition Plant (MAAP) is owned by the government and operated by Martin Marietta. MAAP presently employs 1,600 people.

A PA/SI concluded that the demolition areas, wastewater lagoons, burning grounds, draining ditches, and streams were contaminated with explosive wastes in addition to zinc, chromium, iron, sulfates, and phosphates. Of 11 MAAP water supply wells sampled in November 1978, explosive contaminants were found in three wells near the O-Line Lagoon area. These three wells subsequently were taken out of service.

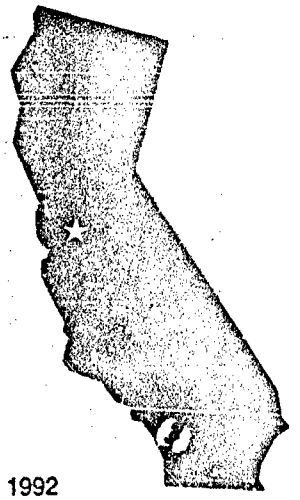
Remedial Investigation/ Feasibility Study (RI/FS)

A two-phase survey completed in 1983 concluded that MAAP ground and surface waters were contaminated with TNT, DNT, and RDX. Contamination was moving toward the plant boundaries; ground and surface waters at the installation boundaries contained mercury at levels exceeding Federal EPA water quality criteria. Ground and surface waters within MAAP contained lead and chromium, but migration studies were inconclusive. The major sources of contamination identified were the O-Line Lagoons, the explosives-burning ground, the ammunition destruction area, and drainage ditches associated with these areas. Regular sampling and analysis of existing wells continue. A formal RI/FS process to remove the O-Line Lagoons from the NPL was initiated in 1988. A contract to perform an RI at the O-Line Lagoons, the open burning grounds, and 15 other SWMUs was awarded in April 1989. The work should be completed in July 1991.

Remedial Design/ Remedial Action (RD/RA)

The O-Line Lagoons were capped and seeded with grass in December 1984. Areas of suspected residual explosive contamination of surface soils were excavated. Additional wells to monitor leaching of contaminants into ground water have been installed. Post-closure maintenance of grounds and fences continues. If necessary, further RD/RA activities will be initiated after the completion of the RI/FS.

Moffett Naval Air Station
Sunnyvale, California



Service:	Navy
Size:	3,919 Acres
HRS Score:	29.49
Base Mission:	Training for air/patrol squadrons and antisubmarine warfare; Headquarters for Commander Patrol Wings of Pacific Fleet
IAG Status:	Pre-ROD IAG signed 1989 with EPA and State of California, Amended Pre-ROD IAG signed September 1990
Action Dates:	PA completed 1984; Placed on NPL 1987; RI/FS initiated 1988; SI completed 1989; RI scheduled for completion 1992
Contaminants:	Metal plating wastes, PCBs, waste oil and fuels, painting residues, organic solvents, caustics, coolants, pesticides, asbestos, freon, dyes
Funding to Date:	$23.89 million

Preliminary Assessment/ Site Inspection (PA/SI)

Approximately 272,000 people depend on wells located within 3 miles of Moffett Field as sources of drinking water. The estuarine wetlands of San Francisco Bay are adjacent to the base.

A PA/SI identified nine sites as potential contaminant migration sources and eight of these sites were targeted for an RI/FS. The potential effect of contaminant migration on the regional aquifer system was documented, as was the chlorinated hydrocarbon contamination of a shallow onsite aquifer.

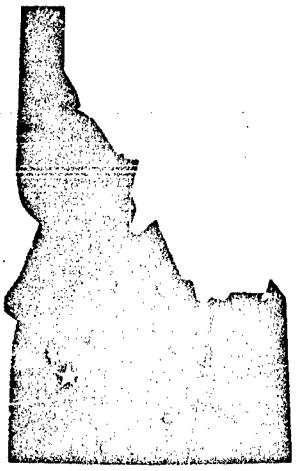
Remedial Investigation/ Feasibility Study (RI/FS)

Nineteen sites currently are being investigated under an RI/FS, including 9 identified in the PA/SI and 10 additional sites incorporated as a result of a Cease and Desist Order to Moffett Field by the California Regional Water Quality Control Board. RI/FS work plans were finalized in March and April 1988. The RI has been conducted in two phases. Phase I of the RI started in May 1988 and Phase II began in November 1989. Upon completion of Phase I, sites that have been sufficiently characterized and require no additional Phase II work will be evaluated so that Operable Unit RAs can be conducted.

Remedial Design/ Remedial Action (RD/RA)

A removal action to address leaking tanks and sumps was initiated in 1990. The evaluation and closure of abandoned wells that may be potential conduits for subsurface cross-contamination also were initiated in 1990.

Mountain Home Air Force Base
Mountain Home, Idaho



Service:	Air Force
Size:	9 Square Miles
HRS Score:	57.80
Base Mission:	Tactical Air Command; Tactical Fighter Wing, with F-111A fighter and EF-111A electronic countermeasure operations
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	PA/SI completed 1986; RI/FS initiated 1985; Placed on NPL 1990
Contaminants:	VOCs, petroleum/oil/lubricants, heavy metals
Funding to Date:	$1.4 million

Preliminary Assessment/ Site Inspection (PA/SI)

Mountain Home AFB has been controlled by the Tactical Air Command since 1965. Hazardous materials and wastes have been used and generated at Mountain Home for aircraft maintenance and industrial operations. Prior to 1969, base wastes were disposed of by several then-accepted methods, including incineration and landfilling of solid wastes, discharge of liquid wastes to sanitary sewers, and the use of waste oil for road oiling. The area around the base is primarily agricultural, and wells supporting 14,000 people and land irrigation are 3 miles from hazardous substances on base.

During the PA/SI, the Air Force identified potentially contaminated areas where POL products, solvents, and pesticides were disposed of. These sites subsequently were investigated in 1985 and 1988 as part of the IRP.

Remedial Investigation/ Feasibility Study (RI/FS)

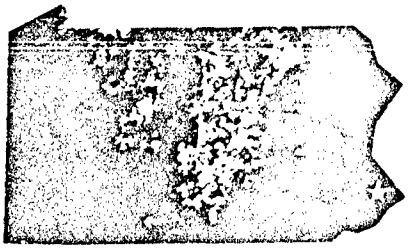
RI field studies were conducted in 1985 and 1988. The lagoon landfill, where general refuse and POL products were disposed of between 1952 and 1956, is currently the site for the base wastewater lagoon. Monitoring wells installed near the center of the landfill detected lead and cadmium in the ground water. In 1988, soil, surface, and ground water samples were collected and analyzed for metals, volatile and semi-volatile organics, and total petroleum hydrocarbons. Any compounds detected within these media were within MCLs for drinking water. To determine whether any contaminants have reached the interlayers between the lagoon and the water table, monitoring wells will be installed and sampled.

Waste oils, fly ash, solvents, jet fuel, tank cleaning sludge, and possibly 20 drums of DDT were placed in trenches and burned or covered with fill. Soil and ground water samples were analyzed for metals, organics, and petroleum hydrocarbons. Organics and petroleum hydrocarbons were detected in shallow soil samples, but no vertical migration was evident in soils or ground water. Additional efforts will be made to locate and sample additional disposal trenches, including DDT drums. An FS to evaluate remedial action alternatives for the fire training area will be finalized. The USGS is conducting a ground water study in support of the RI/FS to assist with the characterization of the complex ground water system.

Remedial Design/ Remedial Action (RD/RA)

Interim actions are planned in 1991 for the fire training area and the low-level radioactive waste disposal site to reduce the threat of contaminant migration.

Naval Air Development Center (8 Waste Areas)
Warminster Township, Pennsylvania



Service: Navy

Size: 921 Acres

HRS Score: 57.93

Base Mission: Research and development for naval aircraft systems, antisubmarine warfare systems, and software

IAG Status: Pre-ROD IAG signed 1990

Action Dates: PA/SI completed 1981; Proposed for NPL 1989; RI/FS initiated 1988; Federal Facilities Agreement signed 1990

Contaminants: VOCs, metal plating wastes, painting residues, PCB-contaminated waste oils, fuels, solvents, asphalt, coolants

Funding to Date: $864,000

Preliminary Assessment/ Site Inspection (PA/SI)

Numerous private and public wells are located within 3 miles of the installation and provide drinking water for more than 100,000 people in the area. Local surface water is used for recreational and industrial purposes. A PA/SI identified eight sites as potential contaminant migration sources recommended for an RI/FS. Chromium and lead were found in surface waters. Chromium, DCE, and TCE were discovered in onsite wells at levels above EPA water-quality standards. Ground water monitoring continues.

Remedial Investigation/ Feasibility Study (RI/FS)

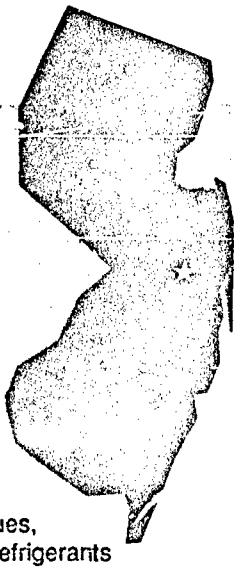
A TRC has been formed. Seven TRC meetings have been held since January 1989. The RI/FS community relations plan was completed and forwarded to EPA in June 1990. Stage I of the RI/FS work plan was completed in June 1990. Stage II of the RI/FS work plan was started in October 1990.

Twenty-nine new ground water monitoring wells were installed in November 1990. Ground water sampling from a total of 46 wells at the site was completed in December 1990.

Remedial Design/ Remedial Action (RD/RA)

Initiation of RD/RA work is expected in 1992.

Naval Air Engineering Center
Lakehurst, New Jersey



Service:	Navy
Size:	7,382 Acres
HRS Score:	50.53
Base Mission:	Develop and test weapons systems
IAG Status:	Pre-ROD IAG signed 1989 with EPA
Action Dates:	PA/SI completed 1983; Placed on NPL 1987; RI/FS initiated 1987; RI Phase II completed 1990
Contaminants:	Waste oils and fuels, solvents, degreasers, paints, paint residues, photographic chemicals, acids, PCBs, pesticides, herbicides, refrigerants
Funding to Date:	$6.10 million

Preliminary Assessment/ Site Inspection (PA/SI)

An extensive, environmentally sensitive pineland preservation that supports recreational, wildlife, and agricultural uses surrounds Lakehurst Naval Air Engineering Center (NAEC). Nearby communities use a shallow aquifer adjacent to the base for drinking water.

A PA/SI identified 44 potentially contaminated sites, and an RI/FS is considering 42 of these sites.

Remedial Investigation/ Feasibility Study (RI/FS)

Completed RI/FS field work confirmed contamination at several sites, although analysis of potable well water showed no evidence of contamination. A final report was completed in July 1990. In addition, initial screening under the FS for 16 priority sites continues. Aquifer characterization was conducted in 1990.

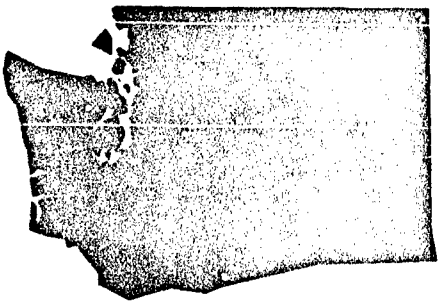
A TRC has been formed. Members include EPA Region II; New Jersey Department of Environmental Protection; New Jersey Pineland Commission; Ocean County Health Department; Town of Manchester; Town of Jackson; Township of Plumstead; Borough of Lakehurst; NAEC Lakehurst; and Northern Division, Naval Facilities Engineering Command.

Remedial Design/ Remedial Action (RD/RA)

RD/RA work for some sites was completed in 1990. Additional RD/RA work is expected over the next several years. A ROD covering all sites is scheduled for completion in January 1993.

Naval Air Station, Whidbey Island (Ault Field & Sea Plane Base)

Whidbey Island, Washington



Service: Navy

Size: 7,000 Acres

HRS Score: 47.58 (Ault Field)
39.64 (Sea Plane Base)

Base Mission: Provide services and materials for aviation operations

IAG Status: Pre-ROD IAG signed September 1990

Action Dates: PA/SI completed 1984; Placed on NPL 1990; RI/FS initiated 1988

Contaminants: VOCs, petroleum/oil/lubricants

Funding to Date: $5.02 million

Preliminary Assessment/ Site Inspection (PA/SI)

Ground water is used extensively for water supply throughout much of Whidbey Island. Contaminant migration could occur through ground and surface waters.

A PA/SI identified 51 past spill and/or disposal sites, with 41 sites targeted for an RI/FS. A current situation completed in January 1988 determined that surface water runoff may have contaminated sediment and biota in nearshore areas around the island, and that contaminants from several sites could migrate in ground water. An accelerated initial investigation completed in September 1989 at the Site 6 Landfill found chlorinated solvents in the shallow aquifer. The contaminants appear to have migrated just beyond the edge of government property. Private wells tested around the property in 1989 were unaffected by the landfill contamination.

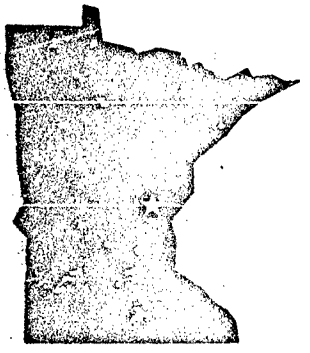
Remedial Investigation/ Feasibility Study (RI/FS)

An action plan submitted to EPA and the Washington State Department of Ecology in September 1989 groups the 41 RI/FS sites into 10 operable units to be investigated and remediated in phases. A TRC has been formed with representatives of NAS, Whidbey Island; Engineering Field Activity Northwest, Naval Facilities Engineering Command; EPA Region X; ATSDR; State of Washington Department of Ecology; Island County Emergency Services; Citizens Ground Water Advisory Committee; Oak Harbor Citizens; and Navy contractors.

Remedial Design/ Remedial Action (RD/RA)

Initiation of RD/RA work (in phases) is expected in 1993.

Naval Industrial Reserve Ordnance Plant
Fridley, Minnesota



Service:	Navy
Size:	83 Acres
HRS Score:	30.83
Base Mission:	Design and manufacture advanced weapons systems
IAG Status:	Initiated and expected to be signed late 1990
Action Dates:	PA/SI completed 1988; RI/FS initiated 1988; Placed on NPL November 1989; Record of Decision for ground water remediation September 1990
Contaminants:	Heavy metals, VOCs, petroleum/oil/lubricants
Funding to Date:	$3.22 million

Preliminary Assessment/ Site Inspection (PA/SI)

The northern portion of the Naval Industrial Reserve Ordnance Plant (NIROP) is government-owned, but operated by a private contractor (FMC). The remainder of the facility is owned independently by FMC. Highly permeable sands, conducive to the downward migration of contaminants, lie below the facility. Underlying these sands, the potable water in aquifers is susceptible to contamination. These aquifers, in turn, discharge into the Mississippi River, which supplies the potable water for Minneapolis. The water supply intake for Minneapolis is located approximately one mile downstream from the NIROP.

Three sites identified as potential contaminant migration sources were recommended for an RI/FS. A series of investigations performed between November 1983 and June 1988 identified TCE in the ground water. The plant discontinued using TCE during the first quarter of 1987. NIROP was listed on the NPL in November 1987.

Remedial Investigation/ Feasibility Study (RI/FS)

A TRC has been formed. Members include EPA Region V; Northern Division, Naval Facilities Engineering Command; Minnesota Pollution Control Agency; USACE, Omaha District; County of Anoke; City of Fridley; FMC, Inc.; MWCC; and NIROP Fridley. A draft FFA has been prepared and is being developed in conjunction with EPA and the State of Minnesota. It is anticipated that an agreement will be reached in early 1991.

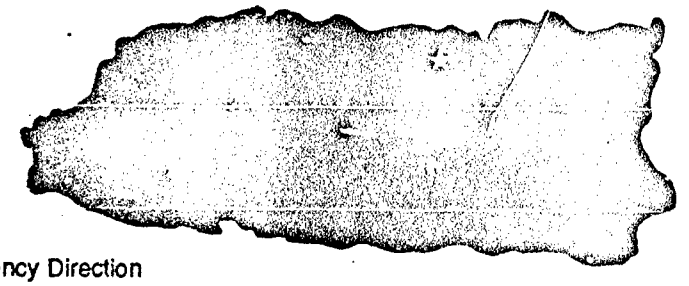
Remedial Design/ Remedial Action (RD/RA)

Interim Removal Action involved removal and disposal of 1,200 cubic yards of soil and 43 drums containing PCB wastes, flammable solids, and base solids. This effort, initiated in 1983, was completed in 1984 at a cost of $733,000.

The Navy recommended and EPA and the Minnesota Pollution Control Agency approved, installation of a treatment and disposal system for ground water. A ROD for ground water remediation was issued in September 1990.

RD for the first phase of cleanup is complete, with RA scheduled to begin in early 1991.

Naval Security Group Activity
Sabana Seca, Puerto Rico



Service:	Navy
Size:	2,252 Acres
HRS Score:	34.28
Base Mission:	Operation of High Frequency Direction Finding Facility
IAG Status:	Initiated and expected to be signed late 1990
Action Dates:	PA/SI completed 1984; RI/FS initiated 1985; Placed on NPL 1990
Contaminants:	Pesticides, herbicides, paints, oils, solvents
Funding to Date:	$516,000

Preliminary Assessment/ Site Inspection (PA/SI)

Past disposal methods in landfills created the potential for soil and ground water contamination. Ground water is the potable water supply for the base. Spillage of herbicides and pesticides, and the rinsing of application equipment, have contaminated the areas adjacent to the pesticide shop. Sightings of endangered wildlife have been reported in numerous locations.

A PA identified seven potentially contaminated sites. Originally, only two sites, the former pesticide shop (Site 6) and the leachate ponding area (Site 7), were recommended for an SI. The source of the leachate at Site 7 is the municipal landfill adjacent to the Station boundary. The pistol range disposal area's (Site 4) proximity to Site 7, and recent information on Bunker 607 disposal area (Site 2) mandated that an SI be conducted. The PA/SI has been completed for Sites 4, 6, and 7. The PA/SI for Site 2 is expected to be completed in 1991.

Remedial Investigation/ Feasibility Study (RI/FS)

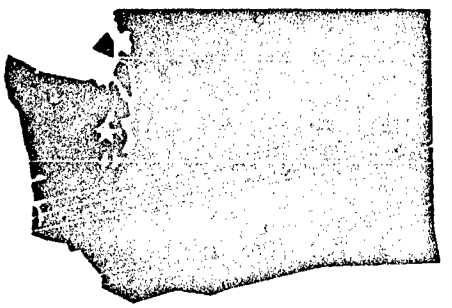
Sample analyses indicate that soils are contaminated at Site 6, the Former Pest Control Shop, but no ground water contamination has been detected at this site. The leachate contamination at Site 7 originates at an offsite source (the municipal landfill). However, its inclusion in the scope of the RI/FS is a precautionary measure to protect the base water supply. The Navy will continue to pursue legal avenues with regard to the migration of contamination onto the Station. Additional rounds of sampling for Sites 4, 6, and 7 are expected to be conducted during 1991 to complete the RI and begin the FS. Depending upon the results from the SI at Site 2, Site 2 also may be recommended for RI/FS work efforts.

A TRC held its first meeting in January 1989. Several meetings were held during 1990 when the documentation for Site 6 had been completed.

Remedial Design/ Remedial Action (RD/RA)

In 1988, the Navy installed a fence around the Former Pest Control Shop (Site 6) and covered the site with 6 inches of soil to prevent human exposure to spilled pesticides. RD/RA work will begin after completion of RI/FS activities.

Naval Undersea Warfare Engineering Station (4 Waste Areas)
Keyport, Washington



Service: Navy

Size: 4,959 Acres

HRS Score: 32.61

Base Mission: Prove, overhaul, and issue torpedoes

IAG Status: Pre-ROD IAG signed July 1990

Action Dates: PA/SI completed 1984; RI/FS initiated 1985; Placed on NPL October 1989

Contaminants: Metal plating wastes, solvents, cleaners/degreasers, paint residues, thinners, strippers, waste oils and fuels, acids and caustics, dyes, contaminated fuel solids and rinsewaters, pesticides

Funding to Date: $4.31 million

Preliminary Assessment/ Site Inspection (PA/SI)

A PA/SI identified 23 sites as potential contaminant migration sources, with 6 recommended for an RI/FS. The study concluded that past disposal practices may have contaminated portions of a shallow aquifer and adjacent marsh. Potential offsite contamination of bay and marsh sediments may impact oysters, fish, and shellfish.

Remedial Investigation/ Feasibility Study (RI/FS)

The RI/FS currently underway should be completed in 1992. Marine sampling of water, sediment, and shellfish tissue was completed in 1989. Land-based sampling consisting of soil, gas, surface, and ground water began in April 1990.

Remedial Design/ Remedial Action (RD/RA)

Initiation of RD/RA work is expected to begin in 1992.

Naval Weapons Station, Earle (Site A)
Colts Neck, New Jersey

Owned:	Navy
Size:	11,101 Acres
NPL Score:	39.55
Base Mission:	Ammunition, logistics and administrative support for homeported ships
IAG Status:	Initiated and expected to be signed late 1990
Action Dates:	Placed on NPL August 1990; PA/SI completed 1988; RI/FS initiated 1991
Contaminants:	Heavy metals, petroleum hydrocarbons, organic solvents, degreasers, paint residues, corrosive acids
Funding to Date:	$1.11 million

Preliminary Assessment/ Site Inspection (PA/SI)

Both the ground water system beneath the Colts Neck facility and the surrounding surface waters are used extensively by public and private interests. Runoff from any on-base contamination threatens public health and the environment.

A PA identified 29 potentially contaminated sites, and an SI was completed in 1986 for two explosive ordnance disposal sites, five landfills, two paint chip disposal sites, an air pollution control residue spill site, and an explosive washout area. An SI for 16 of the remaining 18 sites is expected to begin in 1991.

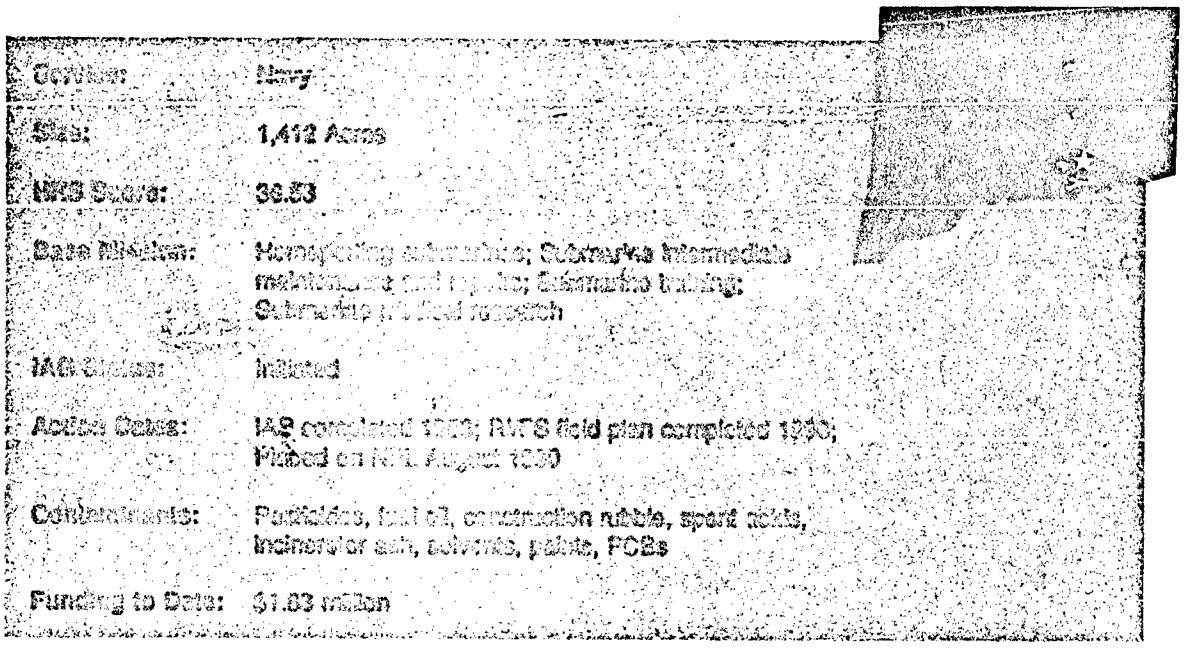
Remedial Investigation/ Feasibility Study (RI/FS)

An RI work plan for 11 sites has been prepared. The RI field work will begin in January 1991. In October 1988, the Navy held the first TRC meeting. Members include NWS Earle; Northern Division, Naval Facilities Engineering Command; EPA Region II; State of New Jersey Department of Environmental Protection; Monmouth County Health Department; and Howell and Middletown Townships. Nine TRC meetings have been held to date.

Remedial Design/ Remedial Action (RD/RA)

Initiation of RD/RA work is expected in 1992.

New London Submarine Base
Groton, Connecticut



Preliminary Assessment/ Site Inspection (PA/SI)

The IAS identified 11 potentially contaminated sites and recommended further investigation at four of these sites. Potential contaminant migration represents a threat to the Thames River, a fishing source and recreational area.

Remedial Investigation/ Feasibility Study (RI/FS)

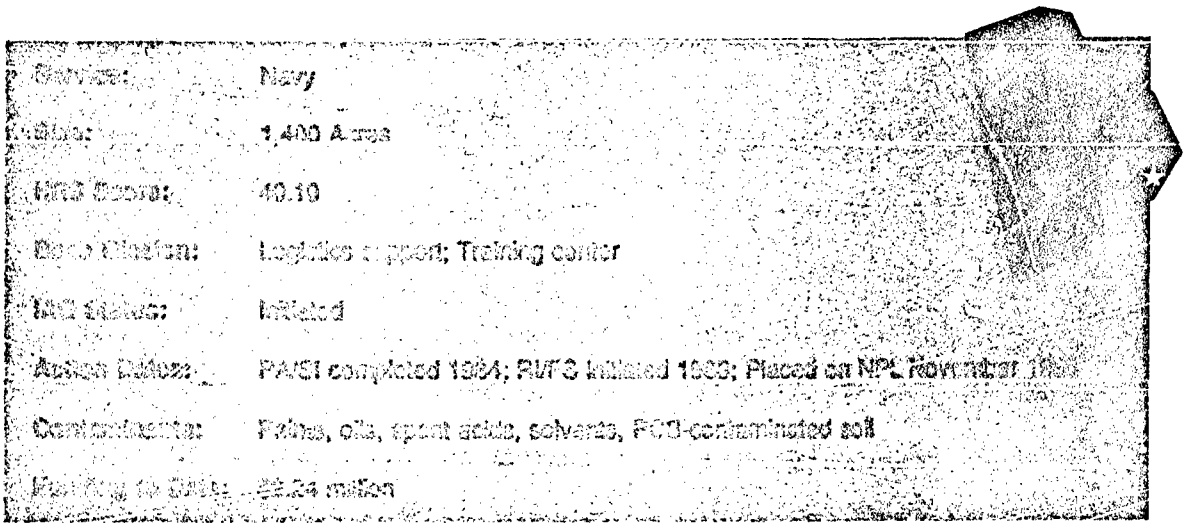
The field work began in July 1990. The work plan includes five RI sites and six SI sites. A TRC was formed in 1989 and members include the Navy, Connecticut Department of Environmental Protection, EPA Region I, Town of Groton, City of Groton, Town of Waterford, City of New London, the Town of Ledyard, and interested citizens of those communities.

Remedial Design/ Remedial Action (RD/RA)

RD/RA work will begin after completion of RI/FS activities.

Newport Naval Education & Training Center

Newport, Rhode Island



Preliminary Assessment/ Site Inspection (PA/SI)

Migration of contaminants pose a potential threat to the underlying aquifer. Surface drainage and ground water from potentially contaminated sites flow directly into the Narragansett Bay. Such potential contamination could adversely affect shellfish harvested for human consumption.

A PA/SI identified 18 potentially contaminated sites in addition to 6 sites where sufficient evidence exists to warrant further studies.

Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS work plan was completed for five sites in March 1989. A TRC has been formed and meetings have been held since April 1988. TRC members include Newport NETC; Northern Division, Naval Facilities Engineering Command; Rhode Island Department of Environmental Management; EPA Region I; Cities of Portsmouth, Middletown, and Newport; Narragansett Bay project representatives; and Melville Marine Industries. In July 1990, the community relations plan was issued for NETC Newport. Field work for the RI/FS work plan was completed in November 1990. The final RI report is expected in August 1991.

Remedial Design/ Remedial Action (RD/RA)

RD/RA work will begin after completion of RI/FS activities.

Norton Air Force Base
San Bernardino, California



Service:	Air Force
Size:	2,003 Acres
HRS Score:	39.65
Base Mission:	Military Airlift Command Base
IAG Status:	Pre-ROD IAG signed 1989
Action Dates:	PA/SI completed 1982; RI/FS initiated 1986; Placed on NPL 1987
Contaminants:	Waste oils and fuels, solvents, paint strippers and residues, refrigerants, acidic plating solutions, metal plating residue
Funding to Date:	$12.1 million

Preliminary Assessment/ Site Inspection (PA/SI)

A PA/SI identified 20 sites of potential contaminant migration. Eighteen of the sites were targeted for an RI/FS, including two landfills, six discharge areas, four chemical pits, a fire training area, a fuel spill area, a PCB spill area, a chemical spill area, two waste storage areas, an UST area, and a low-level radioactive waste burial site. After additional study, two more sites were identified in 1987.

Remedial Investigation/ Feasibility Study (RI/FS)

Initial investigations found that soils at several sites were contaminated with solvents, fuel derivatives, and metals. An IAG between the installation and the regulatory community was signed as required by CERCLA. Deadlines for meeting critical milestones toward final remediation have been established and coordinated with EPA and the state. The final ROD is due in September 1993. An RI/FS effort is underway to characterize all 22 sites, with drafts expected in 1992. In addition, a comprehensive RI/FS work plan (strategy plan) has been developed. A draft RI/FS work plan was submitted to EPA and the state for review prior to finalization in 1990. A comprehensive ground water plan also was provided.

Remedial Design/ Remedial Action (RD/RA)

A removal action was taken in 1985-86 to clean up the on-base IWTP sludge drying beds. Monitoring of a TCE-contaminated well continues and a pump and treat system is being designed for implementation in 1991 to act as a barrier to further TCE migration. In 1989, 24 USTs were removed. Further RD/RA activities are expected to begin in 1991.

Ogden Defense Depot
Ogden, Utah



Service:	Defense Logistics Agency
Size:	1,139 Acres
HRS Score:	45.10
Base Mission:	Electronic equipment, industrial construction equipment, textiles, package petroleum, and industrial/commercial chemicals distribution
IAG Status:	Pre-ROD IAG signed 1989
Action Dates:	PA/SI completed 1988; Placed on NPL 1987; RI/FS initiated 1987; ROD OU #1 signed 1990; RD/RA OU #1 initiated 1990
Contaminants:	Solvents, paint/paint residues, petroleum/oil/lubricants, insecticides, chemical warfare agents (mustard and phosgene gas training kits), methyl bromide, metal plating wastes/sludges, PCB-transformer oils, degreasers, acids and bases, sand-blast residues
Funding to Date:	$4.34 million

Preliminary Assessment/ Site Inspection (PA/SI)

A PA/SI identified 44 locations as potential contaminant migration sources. Seventeen locations are being studied further under the RI/FS. These 17 locations were divided into four Operable Units (OUs).

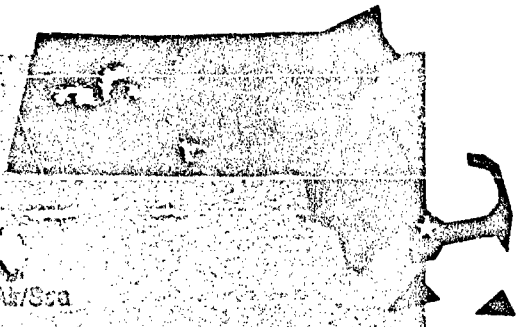
Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS was initiated in September 1987 when ground water monitoring wells were installed and soil borings were taken at 17 locations. Sampling of soil and ground water has confirmed concentrations of benzene, TCE, vinyl chloride, trans-1,2-DCE, cis-1,2-DCE, methylene chloride, chlordane, zinc, cadmium, barium toluene, tetrachloroethene, and chromium above the established federal MCLs. Ground water contamination has been limited to the shallow aquifer because of the current geological conditions at the site. The FFA identifies four OUs. A ROD will be developed for each unit. The first DLA ROD was signed in September 1990 to allow official startup of cleanup activities at OU #1.

Remedial Design/ Remedial Action (RD/RA)

Vials of mustard agents and irritant grenades were removed from disposal pits in June 1988. RD/DA activities were initiated in 1990 at OU #1.

Otis Air National Guard Base/ Camp Edwards
Falmouth, Massachusetts



Service:	Air Force
Size:	21,000 Acres
NPL Status:	43.92
Base Mission:	Provide Army and Air National Guard training, East Coast Air Defense, and Coast Guard Air/Sea Rescue
IAG Status:	Initialed and expected to be signed late 1990
Action Dates:	Placed on NPL 1989
Contaminants:	Waste solvents, emulsifiers, penetrants, photographic chemicals, VOCs
Funding to Date:	$18.5 million

Preliminary Assessment/ Site Inspection (PA/SI)

While the Nondestructive Testing Laboratory operated (1970-78), waste solvents, emulsifiers, penetrants, and photographic developers were disposed of on base. Effluent from the sewage treatment plant also was disposed of on base. In 1984, the USGS detected a plume of trichloroethane, tetrachloroethylene, and trans-1,2-dichloroethylene south of the base and downgradient from the base water treatment plant. In late 1985, the town of Falmouth found that VOCs had contaminated a town well located near the plume. The ANG performed studies and determined, along with the State Department of Engineering and Environmental Quality, that more than 200 private wells and the town well should not be used for potable purposes. Under an agreement developed with the town of Falmouth, the Air Force provided funding, and the town provided water in 1986 to these private residents. The plume has been monitored by the ANG and the USGS since identification. In 1989, additional water services were installed downgradient from the plume. As the plume moves, work is being conducted to prevent any public health problems. EPA has designated the Cape Cod aquifer underlying MMR as a sole source aquifer under the Safe Drinking Water Act (SDWA). The towns of Falmouth and Mashpee have private wells downgradient from known contamination. The drinking water for these towns is potentially threatened by contamination. Ashument Pond, less than one mile downgradient from the waste water treatment plant and the former Fire Training Area, is used for recreational activities. Flow from both facilities enters the western edge of the pond. A fresh water wetland is 3,600 feet downstream.

An extensive program was begun in 1985 to investigate the entire 21,000 acres of land. Agreements were made for the ANG, the Army National Guard, and the Coast Guard to perform a comprehensive study under the direction of the ANG. A PA completed in 1986 indicated potential contamination at 61 sites on the land occupied by the Air and Army National Guard and the Veterans Cemetery, and a potential for contamination at 12 sites on the Coast Guard Station. A review by EPA, ANG, and Massachusetts concluded that 42 sites required further investigation. The sites include fire training areas, landfills, fuel spill areas, fuel storage areas, and vehicle maintenance areas. The waste products associated with these areas include solvents, fuels, and chlorinated solvents.

Otis Air National Guard Base/ Camp Edwards
Falmouth, Massachusetts

(Continued)

Remedial Investigation/ Feasibility Study (RI/FS)

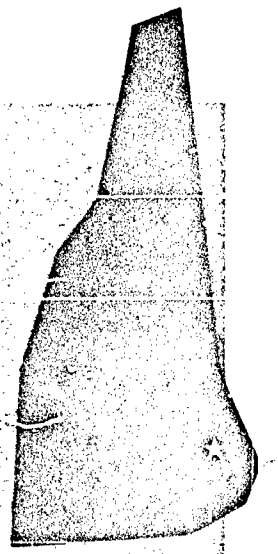
The sites were prioritized and RIs were initiated at the 21 priority sites. Final RI work is proceeding at those sites with FFSs under review by EPA and the state for two sites.

RI investigations also are starting on the remaining sites. In addition to these studies, wells have been installed along the southern border of the base to detect any contamination possibly migrating off base from the 42 sites and flowing into the towns of Falmouth and Mashpee. No contamination has been detected flowing toward the towns of Bourne or Sandwich on the northern border of the base.

Remedial Design/ Remedial Action (RD/RA)

The Air Force installed new water lines in 1986-87 to the affected residences and replaced the city well. In 1989, additional water lines were installed in three affected areas in Ashument Valley. The Air Force is negotiating to install water lines in the Briarwood section of Mashpee.

Pease Air Force Base
Portsmouth/Newington, New Hampshire



Service:	Air Force
Size:	4,385 Acres
HRS Score:	39.42
Base Mission:	Aircraft maintenance
IAG Status:	Initiated and expected to be signed late 1990
Action Dates:	PA/SI completed 1988; RI/FS initiated 1987; Placed on NPL 1990
Contaminants:	Organic solvents, pesticides, paint strippers, petroleum products
Funding to Date:	$8.3 million

Preliminary Assessment/ Site Inspection (PA/SI)

The area around Pease AFB is commercial-residential. The base abuts a tidal estuary called Great Bay that leads to Little Bay 3 miles downstream, which is used for both shellfishing and recreational activities. Both coastal and fresh water wetlands are along surface water migration pathways from the base.

An estimated 9,000 people obtain drinking water from public and private wells within 3 miles of the base.

A 1986 Air Force study identified 18 waste disposal areas on the base. Thirteen areas received hazardous wastes, including seven landfills, two areas where waste oil and solvents were burned for fire training exercises, and four areas where solvents and other liquid wastes were discharged on the ground. All hazardous wastes generated on base currently are disposed of offsite at EPA-regulated facilities.

A second PA was conducted in 1990 to satisfy IAG requirements.

Remedial Investigation/ Feasibility Study (RI/FS)

Tests conducted in 1977 determined that a well supplying drinking water to 8,700 people on base was contaminated with TCE. An RI/FS was initiated in September 1987. According to a 1988 IRP report, traces of heptachlor and lindane were found contaminating surface water along the surface runoff pathway from one of the landfills. Lead and zinc were found in sediments of three major drainage ditches on base. The base holds an NPDES permit for the discharge of treated wastewater into the Piscataqua River.

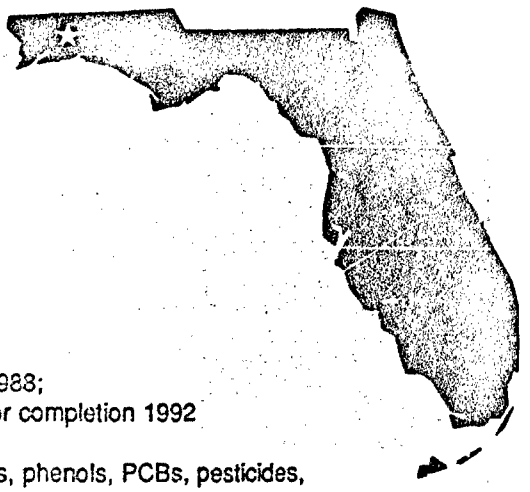
An RI was initiated at five sites in 1989 and is scheduled for completion in 1992. The RI/FS work plan for the remaining 15 sites is currently under regulatory review. The RI for these 15 sites is scheduled to begin in late 1990 and to be completed in 1993.

Remedial Design/ Remedial Action (RD/RA)

In 1984, an aeration system was installed to remove TCE from all base water supply wells. The TCE levels are no longer detectables, so the system has been discontinued.

Work began in August 1989 to implement interim remedial measures at Landfill #5. These measurements entail removal of drums and contaminated soil probably impacting surface and ground water. Interim remedial measures consist of using pump and treat technologies to remove free product and dissolved constituents from ground water, and to limit migration. Additional site characterization and interim remedial measures at the fire training area and three sites in the industrial shop were initiated in 1990.

Pensacola Naval Air Station
Pensacola, Florida



Service:	Navy
Size:	5,969 Acres
HRS Score:	42.40
Base Mission:	Flight training, Naval Air Depot
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	PA completed 1983; RI/FS initiated 1988; Placed on NPL 1990; SI scheduled for completion 1992
Contaminants:	Paints, metal plating wastes, asbestos, phenols, PCBs, pesticides, chlorinated and non-chlorinated solvents, ammonia, cyanide
Funding to Date:	$3.69 million

Preliminary Assessment/ Site Inspection (PA/SI)

Past disposal practices included burning in unlined pits; depositing in disposal areas; storing aviation gas in fuel tanks; and discharging liquid wastes to industrial sewers, sanitary sewers, and surface impoundments.

A PA/SI identified 36 potentially contaminated sites with 17 sites recommended for additional work. The hydrogeology of the area is conducive to contaminant migration through the soil. High rainfall coupled with ground water flow could cause off-base contaminant migration.

The RFA identified 36 SWMUs in the RCRA/HSWA permit dated August 26, 1988. Seventeen sites required an RFI. These sites are also IRP sites identified in the PA/SI and RI/FS.

Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS covering 39 sites began in December 1988 in conjunction with the RFI. A contract was awarded for the development of SI work plans for all sites (SWMU and IRP sites) at Pensacola NAS. Draft work plans were submitted to EPA Region IV in May 1989. The work plans submitted are intended to cover requirements for both the RI/FS and RFI.

Phase I work plans have been approved by EPA. Phase I field work for 10 sites has included removing gross contamination from the sludge drying beds, polishing pond, and surge pond. Ground water is being treated and monitored at this site to assess the effects of these units on the environment.

The first meeting of the TRC was held on January 12, 1989. Navy, EPA, and Florida Department of Environmental Regulation drafted an FFA. Signatures occurred in October 1990. The FFA identifies 37 potential sources of contamination for further investigation and appropriate corrective action.

Remedial Design/ Remedial Action (RD/RA)

A ground water recovery system has operated since January 1987 at Site 33. Impoundments at Site 33 underwent formal closure under RCRA in FY89.

Picatinny Arsenal
Rockaway Township, New Jersey

Service:	Army
Size:	6,500 Acres
HRS Score:	42.92
Base Mission:	U.S. Army Armament Research, Development, and Engineering Center
IAG Status:	Initiated and expected to be signed late 1990
Action Dates:	PA/SI completed 1987; Placed on NPL 1990
Contaminants:	Heavy metals, VOCs, nitroaromatics
Funding to Date:	$11.68 million

Preliminary Assessment/ Site Inspection (PA/SI)

Picatinny Arsenal employs approximately 6,400 people. Potential contamination in ground water, surface water, sediment, and soils is suspected.

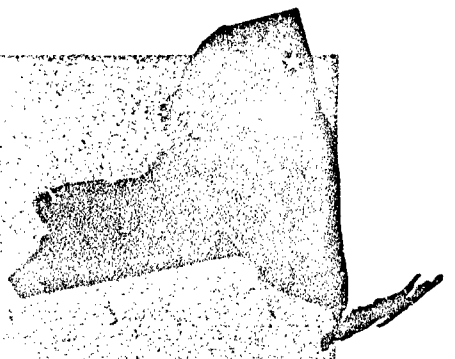
Remedial Investigation/ Feasibility Study (RI/FS)

Argonne National Laboratories was contracted to prepare an RI/FS concept plan to review all existing environmental data and prioritize sites in terms or their potential impact on public health and the environment. A field report is expected in the spring of 1991. The Phase I RI will address 6 areas, which include 44 sites. The contract is expected for award in FY 91.

Remedial Design/ Remedial Action (RD/RA)

An IRA to pump and treat TCE-contaminated ground water near Building 24, an inactive metal shop, is planned for 1991.

Plattsburgh Air Force Base
Plattsburgh, New York



Service:	Air Force
Size:	3,440 Acres
HRS Score:	30.34
Base Mission:	Tactical Wing of Strategic Air Command; Provide Combat Crew training and NCO Leadership School
IAG Status:	Initiated and expected to be signed 1991
Action Dates:	PA/SI completed 1986; RI/FS initiated 1987; Placed on NPL 1990
Contaminants:	Organic solvents, PCBs
Funding to Date:	$4.9 million

Preliminary Assessment/ Site Inspection (PA/SI)

Toluene, TCE, 1,1,1-TCA, methylene chloride, and 1,2-dichloroethane are present in drainage ditches in areas where solvents and jet fuels were spilled. Tests conducted in 1987 found MEK, TCE, and trans-1,2-dichloroethylene in two shallow monitoring wells downgradient from a drum storage area. An estimated 2,000 people obtain drinking water from wells within 3 miles of the base.

EPA evaluated eight hazardous waste accumulation or disposal sites and four spill areas to develop the HRS score for Plattsburgh AFB.

Remedial Investigation/ Feasibility Study (RI/FS)

Plattsburgh AFB prepared and is implementing an RI/FS work plan for 24 sites.

Remedial Design/ Remedial Action (RD/RA)

RD/RA activities planned for 1991 include the continued design and remedial action at the DDT spill site at the DRMO facility, and at the fire training area. Capping two landfills also is planned for 1991. Additional RAs may be implemented based upon the results of the RI/FS.

Riverbank Army Ammunition Plant
Riverbank, California

Service:	Army
Size:	172 Acres
HRS Score:	63.94
Base Mission:	Grenade and projectile steel cartridge casings manufacture
IAG Status:	Pre-ROD IAG signed April 1990
Action Dates:	PA/SI completed 1980; RI/FS initiated 1981; Placed on NPL 1990
Contaminants:	Cyanide and chromium wastes
Funding to Date:	$8.01 million



Preliminary Assessment/ Site Inspection (PA/SI)

The Riverbank Army Ammunition Plant (RBAAP) is a GOCO facility currently employing approximately 320 persons. Past operations have contaminated the ground water beneath the plant with cyanide and chromium wastes and the off-post potable water supply used by approximately 70 residents.

A PA/SI identified potentially contaminated sites, including the IWTP, an abandoned landfill, and four evaporation/percolation (E/P) ponds located 1.5 miles north of the plant near the Stanislaus River.

Remedial Investigation/ Feasibility Study (RI/FS)

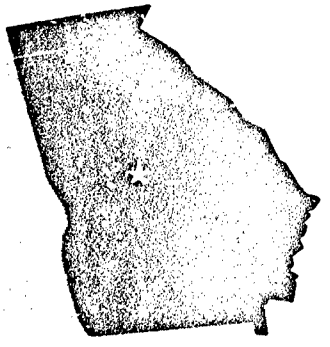
Chromium contamination has been traced to past operation of the IWTP. The abandoned landfill is the source of cyanide contaminants. Both chromium and cyanide have entered the ground water aquifers beneath the plant. Their migration off post affects the potable domestic water supply. Sampling of domestic supply wells off post is conducted quarterly. The E/P ponds contain zinc concentrations above California limits for surface impoundments.

Remedial Design/ Remedial Action (RD/RA)

In response to finding chromium contamination above state limits, off-post domestic supply wells at five residences were replaced with deeper wells. Construction of an interim ground water treatment system was initiated in September 1990 and is scheduled for completion in December 1990. Operation of the system is scheduled for initiation in January 1991.

Remedial measures to reduce the concentrations in the E/P ponds are scheduled for 1991. State and federal regulators currently are reviewing the proposed remedial alternative.

Robins Air Force Base (Landfill #4/Sludge Lagoon)
Houston County, Georgia



Service:	Air Force
Size:	8,855 Acres
HRS Score:	51.66
Base Mission:	Aircraft logistics
IAG Status:	Pre-ROD IAG signed 1989
Action Dates:	PA/SI completed 1982; RI/FS initiated 1986; Placed on NPL 1987
Contaminants:	VOCs, paint strippers and thinners, paints, solvents, phosphoric and chromic acids, oils, cyanide, carbon remover
Funding to Date:	$15.57 million

Preliminary Assessment/ Site Inspection (PA/SI)

Robins AFB is located in the Coastal Plain of Georgia and includes a 1,200-acre wetland. Units of the highly permeable Cretaceous Aquifer lie beneath the base. Although the water supplies for the base and city of Warner Robins are derived from this aquifer, the ground water flow and contaminant migration appear to be in an easterly direction, away from all wells and the city. Trichloroethylene and tetrachloroethylene have been detected in ground water. Fourteen areas on base may contain hazardous waste from past disposal activities.

A PA/SI identified 13 sites as contamination sources and targeted 9 for RI/FS work. An additional site was added in 1985. Ground water contamination with a high potential for contaminant migration was detected at three sites. Two areas covering 465 acres comprise the NPL site: Landfill #4, and an adjacent sludge lagoon, which contains phenols and metal plating wastes.

Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS was initiated in September 1986. The 14 sites have been grouped into 8 zones. In Zone 1, contamination of ground and surface water and sediments by organic solvents and metals was confirmed. In Zone 2, ground and surface water contamination was detected. In Zone 3, high levels of petroleum products, TOX, and BTEX were found. In Zone 4, ground water contamination by TOX and BTEX was detected. In Zone 5, solvents were found. No significant contamination was detected in Zone 6. In Zone 7, TCE, petroleum hydrocarbons, and lead were found. Zone 8 had one soil sample test positive for PCBs.

Remedial Design/ Remedial Action (RD/RA)

Several USTs were removed and water supply wells were replaced in 1987. Removal of contaminated soil in Zone 2 and PCB-contaminated soil in Zone 8 will begin in 1991. Monitoring has been proposed for the disposal sites in Zone 6. The recovery of floating free product from a JP-4 spill began in November 1990. The RD for the NPL site Zone 1 is scheduled to begin in January 1991. The remedial design and corrective actions for Zones 2 and 3 also are scheduled for 1991.

An IRP master plan has been approved for Robins AFB for 1988 through 1992. The plan is a work document to consider contaminant sources, migration, and the development of remedial alternatives.

Rocky Mountain Arsenal
Adams County, Colorado



Service:	Army
Size:	17,228 Acres
HRS Score:	58.15
Base Mission:	Decontamination and cleanup of real estate, facilities, and equipment
IAG Status:	Pre-ROD IAG Federal Facilities Agreement established 1989
Action Dates:	RI/FS initiated 1984; PA/SI completed 1985; Placed on NPL 1987
Contaminants:	Pesticides; mustard gas and nerve agents; mercury; lead; arsenic; organic; and inorganic chlorides; hydroxides and fluorides; diisopropylmethylphosphonate dichloropentadiene; dibromochloropropane; solvents; acids; methyl isobutylketone; sulfur bearing organic and inorganic compounds
Funding to Date:	$315 million

Preliminary Assessment/ Site Inspection (PA/SI)

The Army completed a material contamination survey in August 1973 and an installation assessment in March 1977. These studies identified 19 areas potentially contaminated with heavy metals, chemical agents, incendiaries, and industrial wastes.

Remedial Investigation/ Feasibility Study (RI/FS)

The cleanup program at Rocky Mountain Arsenal (RMA) is divided into two OUs on post and off post. During 1990, RMA completed the final on-post RI report, which documents the nature and extent of contamination within the on-post OU. The final RI report for the off-post OU was completed in 1989. Nearly completed in 1990 was the on-post human health exposure assessment, which is the second of four key steps in the integrated Endangerment Assessment (EA) for RMA. The EA for the off-post OU is scheduled for completion in 1991. The FS for the on-post OU is underway and scheduled for completion in 1993. More than 200 technologies will be reviewed for inclusion in the alternatives development process. Completion of the FS for the off-post OU is scheduled for 1991.

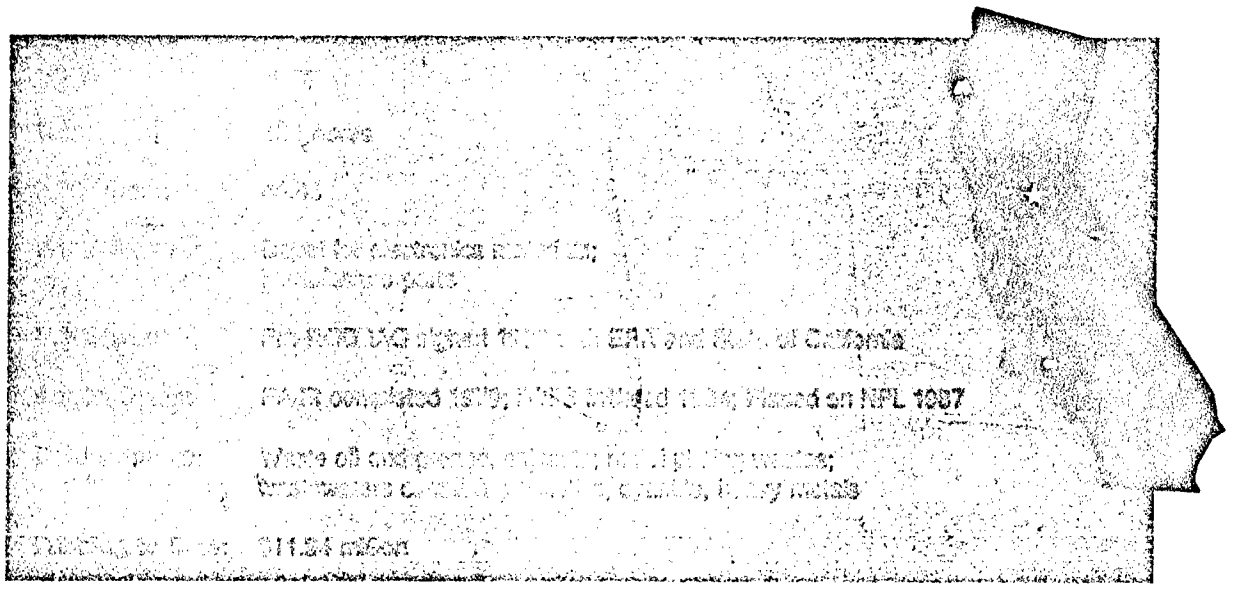
Remedial Design/ Remedial Action (RD/RA)

The FFA calls for at least 13 IRAs to contain contamination sources, reduce the extent of contaminant migration, and decrease the cost of the final remediation. Several IRAs were initiated. Recharge trenches were installed at the North Boundary System and short term improvements were made to the Northwest Boundary System. Two new intercept and treatment systems located north of Basin F and in the Basin A neck area were completed. Engineering design for a new intercept and treatment system located off post, north of RMA, was completed.

The interim remediation of Basin F was completed in May 1989. Approximately 8.5 million gallons of liquid and 500,000 yards of contaminated soil have been removed and placed in tanks, ponds, and a waste pile, which will prevent any release of Basin F contaminants into the environment. This effort represents the largest single DoD cleanup effort to date at an NPL site. Engineering assessments and a final decision on technology also have been completed for destruction of the Basin F liquids.

Other actions include the completion of the engineering assessments for the destruction and disposal of liquid wastes, preparation for the cleanup and dismantling at the Hydrazene Blending and Treatment Facility, and the capping of approximately 352 abandoned wells.

Sacramento Army Depot
Sacramento, California



Preliminary Assessment/ Site Inspection (PA/SI)

PA/SI work identified several industrial areas and spill/disposal sites as potential sources of contaminant migration. Surface runoff is the likely source of contamination of Morrison Creek.

An enhanced PA is being conducted to determine all environmental issues that need to be addressed. The enhanced PA began in July 1990 and is expected to be completed in March 1991. The assessment will include records reviews, evaluation of ongoing environmental studies, and a site visit.

Remedial Investigation/ Feasibility Study (RI/FS)

Ground water sampling indicates contamination both onsite and offsite, primarily with trichloroethylene and heavy metals. Heavy metals also have been found in the sediments of Morrison Creek.

Remedial Design/ Remedial Action (RD/RA)

The installation is closing the old oxidation lagoons and oil burn pits and plans have been developed to remove leaking storage tanks. An interim ROD was signed in September 1989 for the on-post ground water treatment system IRA. Construction was completed in late 1990. RD/RA activities, including construction of a ground water treatment system and a ground water monitoring system, are expected to begin in 1992.

Savanna Army Depot Activity
Savanna, Illinois



Service:	Army
Size:	13,062 Acres
HRS Score:	42.20
Base Mission:	Depot for munitions and explosives; manufacture and store chemicals
IAG Status:	Pre-ROD IAG signed 1989 with EPA and State of Illinois
Action Dates:	PA/SI completed 1979; RI/FS initiated 1980; Placed on NPL 1989
Contaminants:	Munitions-related wastes
Funding to Date:	$10.64 million

Preliminary Assessment/ Site Inspection (PA/SI)

Three potable water sources near Savanna Army Depot and the shallow aquifer 5 meters below may be contaminated. Lagoons adjacent to the Mississippi River also could contaminate these drinking water sources. Surface contamination could affect the large wintering population of bald eagles. The PA/SI initially identified 59 potentially contaminated sites. These sites later were consolidated into 45 sites. Local munitions-related contamination was detected in sediments of the TNT washout-area leaching-pond, and in ground water on base.

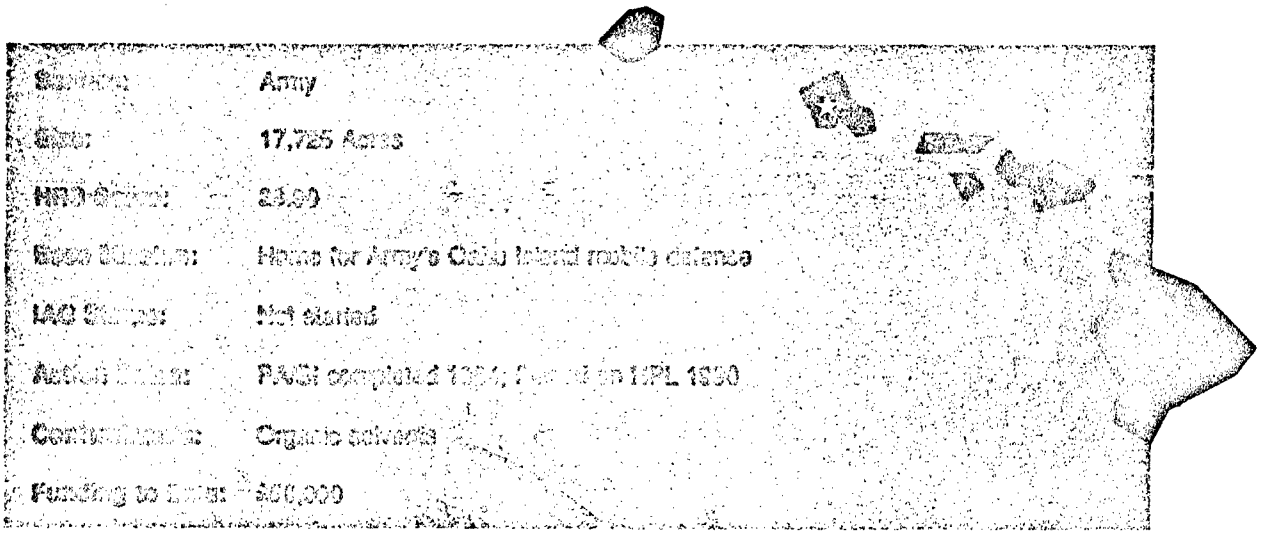
Remedial Investigation/ Feasibility Study (RI/FS)

The RI/FS, initiated in September 1980, identified and confirmed the extent and concentration of ground water and soil contamination in the lagoon sediment. The lagoon leached TNT and other chemicals to the ground water. Sampling of selected ground and surface water sites in 1988 determined the extent of contaminant migration. The IAG-mandated RI commenced in October 1989. The May 1990 site characterization summary increased the number of potentially contaminated sites to 72. Environmental sampling at 26 sites recommended by EPA and Illinois EPA commenced in 1990.

Remedial Design/ Remedial Action (RD/RA)

Incineration of TNT-contaminated soils and RA at the lagoon are scheduled for 1991. The incineration will proceed as an operable unit.

Schofield Barracks
Oahu, Hawaii



Preliminary Assessment/ Site Inspection (PA/SI)

Schofield Barracks was established in 1908 as a base for the Army's mobile defense of Pearl Harbor and the entire island. The area around the barracks is generally rain forest. The facility is divided into two areas: the East Range and the Main Post. The closest municipality is Wahiawa to the north.

In April 1985, the Hawaii Department of Health informed the Army that high levels (30 ppb) of TCE contaminated wells supplying drinking water to 25,000 people at Schofield Barracks. An additional 55,000 people in Wahiawa and Miliani obtain drinking water from public wells within 3 miles of hazardous substances on base. Three miles downstream of the base, Wahiawa Reservoir is used to irrigate 3,000 acres of pineapple fields and for recreational activities. The MCL for TCE is 5 ppb (federal MCL).

A PA/SI identified pesticide storage, burning ground, washrack activities, and paint filters disposal activities that could contaminate the municipal landfill.

No evidence of ground water contamination was found at the time of the study. Further SI work is required to identify the source of the TCE contamination.

Remedial Investigation/ Feasibility Study (RI/FS)

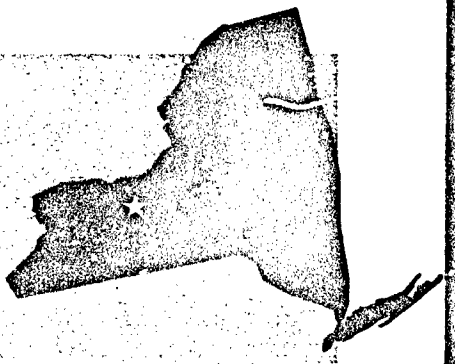
In September 1986, the Army began removing TCE from contaminated wells on base to ensure safe drinking water. This interim response action will be modified as required, based upon findings of the upcoming RI/FS. RI/FS activities will be initiated following completion of all PA/SI-related efforts, probably under the auspices of an IAG.

Remedial Design/ Remedial Action (RD/RA)

RD/RA work will begin after completion of RI/FS activities.

Currently, ground water treatment is performed in place with granulated activated carbon (GAC) for removal of TCE from ground water for the drinking water supply at Schofield Barracks.

Seneca Army Depot
Romulus, New York



Service:	Army
Size:	10,600 Acres
HRS Score:	35.52
Base Mission:	Receive, store, distribute, maintain, and demilitarize conventional ammunition, explosives, and special weapons
IAG Status:	Initiated and expected to be signed late 1990
Action Dates:	PA/SI completed 1989; Placed on NPL 1990, RI/FS initiated 1990
Contaminants:	Chlorinated organic solvents, heavy metals
Funding to Date:	$1.39 million

Preliminary Assessment/ Site Inspection (PA/SI)

Seneca Army Depot employs approximately 700 civilian and 300 to 400 military employees. Chlorinated organic solvents from the incinerator ash landfill have been detected in ground water on post and in seasonal surface seeps off post. Occupants of a farmhouse near the field where the seeps occur may be receptors. No private wells are affected. Soils in the open burning/open detonation (OB/OD) ground are contaminated with heavy metals that apparently do not migrate.

The PA/SI identified the potential for ground water contamination at the incinerator ash landfill and recommended an SI. The SI confirmed off-post migration of contaminated ground water and identified several source areas within the landfill.

Remedial Investigation/ Feasibility Study (RI/FS)

RI/FS investigations began in January 1990 for the landfill and are planned in FY 91 for the OB/OD ground. These investigations will characterize contaminant source areas, define the extent of contamination, and evaluate health risks.

Remedial Design/ Remedial Action (RD/RA)

RD/RA is scheduled to begin in 1993.

Sharpe Army Depot
Lathrop, California

Service:	Defense Logistics Agency
Size:	720 Acres
HRS Score:	42.24
Base Mission:	Depot for general supplies
IAG Status:	Pre-ROD IAG signed 1989 with EPA and State of California
Action Dates:	PA/SI completed 1980; RI/FS initiated 1984; Placed on NPL 1987
Contaminants:	VOCs, heavy metals
Funding to Date:	$11.82 million



Preliminary Assessment/ Site Inspection (PA/SI)

Sharpe Depot employs 1,200 people. Wastes have been landfilled or buried onsite. The PA/SI indicated contamination from landfilling in the north and south ends of the depot, in areas referred to as the north balloon and south balloon because they are encircled by a railroad turnaround. The study identified contaminants in the burning pits and burial sites in the central area of the depot. The PA/SI found solvent wastes, predominantly TCE, contaminating soil and ground water in the area.

Remedial Investigation/ Feasibility Study (RI/FS)

The RI/FS was initiated in July 1984. The complexity and extent of site contamination and the intense regulatory oversight have necessitated two separate RI sampling operations. A third and probably final round of sampling was completed in February 1990. Sampling data confirm the presence of TCE in the upper three aquifers at several locations. TCE levels up to 12,000 ug/L have been measured. The California allowable level for TCE is 5 ug/L. TCE from Sharpe Depot also has contaminated ground water off post.

The FS that addresses all disposal sites at Sharpe is scheduled for submittal to the regulators in October 1991. A focused FS for ground water contamination was submitted in December 1990.

Remedial Design/ Remedial Action (RD/RA)

The Army has constructed an interim ground water treatment system and is constructing a second system to contain and treat contamination in the most seriously affected areas. A system designed to capture and treat contamination in the north balloon area became operational in October 1990.

Tinker Air Force Base (Soldier Creek/Building 3001)
Oklahoma City, Oklahoma

Service:	Air Force
Size:	5,001 Acres
HRS Score:	42.24
Base Mission:	Worldwide repair depot for aircraft, weapons, and engines
IAG Status:	Pre-ROD IAG signed 1989
Action Dates:	PA/SI completed 1982; RI/FS initiated 1983; Placed on NPL 1987
Contaminants:	Organic solvents, heavy metals
Funding to Date:	$20.1 million



Preliminary Assessment/ Site Inspection (PA/SI)

The base is within the North Canadian River Drainage Basin and drains into Crutcho and Kuhlman Creeks. It overlies the Garber-Wellington Aquifer. Soldier Creek and Building 3001 constitute the NPL site. Two Soldier Creek tributaries carry storm and treated industrial water from Building 3001. The main contaminants are organic solvents (TCE and 1,2-DCE) formerly used for degreasing and aircraft maintenance, and heavy metals (hexavalent chromium) formerly used in plating operations. To date, three drinking water wells within or adjacent to Building 3001 have been taken out of service and plugged. Abandoned Pit Q-51 (inside B3001) also has been plugged. The contamination plume covers 220 acres (within base boundary) under Building 3001 and the upper (non-producing) aquifer zones. The base and 75,000 customers in Midwest City draw water from the producing zones of the aquifer. Tinker AFB's past operations and disposals have created the following IRP sites: 6 landfills (1 on leased land) containing 1,705,000 cubic yards of industrial and sanitary waste; 2 industrial pits; 1 supernatant pond; 2 abandoned fire training areas; 5 disposal sites; and 12 fuel-contaminated sites caused by leaking USTs. Three on-base creeks also are suspected of being contaminated.

The PA/SI work for the original 14 IRP sites was completed in April 1982. Subsequent PA/SI work was completed as each new site was proposed for the IRP (including Facility 1123 and Fire Training Area Four).

Remedial Investigation/ Feasibility Study (RI/FS)

Initial investigations commenced in September 1983 and have been completed for Wells 17, 18, and 19, Landfill 3, the North Fuel Area (B3001 - operable unit), Pit Q-51 (B3001 - operable unit), the IWTP's Abandoned Pits, Fire Training Area 2, and Building 3001. Field work has been completed at Landfills 1 through 4, Landfill 6, Fire Training Area 1, Supernatant Pond, and Industrial Waste Pit 2. Investigations are underway at the IWTP, Industrial Waste Pit 1, Southwest Tank Area (SW to B3001), Area A Refueling Station, 3700 Fuel Yard, four fuel sites, all five radioactive waste disposal sites, Crutcho, Kuhlman Creek, and the Soldier Creek NPL site.

To date, these investigations have revealed contamination plumes underneath Building 3001, North Tank Area, the IWTP, Landfills 1 through 4, Landfill 6, the Fuel Farm Area, Area A Refueling Station, and the 3700 Fuel Yard. No off-base contaminant migration has been confirmed to date. An IAG covering the NPL site was signed in December 1988.

Tinker Air Force Base (Soldier Creek/Building 3001)
Oklahoma City, Oklahoma

(Continued)

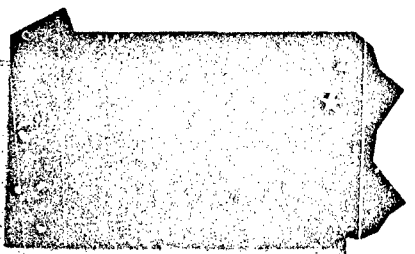
Remedial Design/ Remedial Action (RD/RA)

The ROD for Building 3001, North Tank Area operable unit, and Pit Q-51 operable unit was signed August 16, 1990 (two months ahead of schedule); Pit Q-51 was cleaned and plugged in September 1990. The design efforts for the recommended RA for the B3001 ground water recovery and treatment system began in September 1990.

Landfills 5 and 6 have been capped and remedial actions have been completed for Wells 17, 18, and 19, as well as for Pits Q-51 and U-51. Most of the fuel has been recovered from the Fuel Farm. Fuel recovery has been recommended for the Area A Refueling Station and 3700 Fuel Yard and North Tank Area (along with vapor recovery). Capping has been recommended for Landfills 1 through 4. The clay cap at Landfill 6 (on leased land) is also scheduled for repair along with the installation of a fence around the landfill. The removal of the abandoned pits (and contaminated surrounding soil) at the IWTP also has been recommended.

Recommendation for no further action/site closure is scheduled for Wells 18 and 19, Pit Q-51, Fire Training Areas 2 and 4, Facility 1123, three of the five radioactive waste disposal sites, and the industrial waste pits.

Tobyhanna Army Depot
Tobyhanna, Pennsylvania



Service:	Army
Size:	1,293 Acres
HRS Score:	37.83
Base Mission:	Logistics for communications/electronics equipment; Largest communications/electronics overhaul facility in Army
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	PA/SI completed 1980; RI/FS initiated 1987; Placed on NPL 1990
Contaminants:	VOCs, heavy metals
Funding to Date:	$3.65 million

Preliminary Assessment/ Site Inspection (PA/SI)

VOCs contaminate private off-post wells adjacent to the southeast corner of the depot.

The PA/SI recommended no follow-on survey. During the update to the initial assessment (February 1988), an RI/FS was recommended to address the VOC contamination of the depot's supply well No. 3 (on post) and off-post private wells.

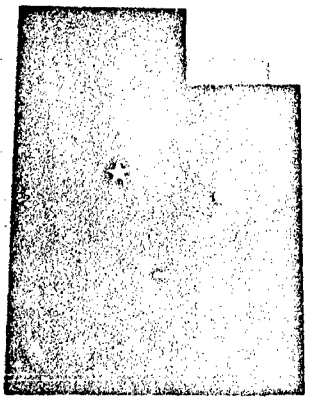
Remedial Investigation/ Feasibility Study (RI/FS)

The RI/FS, initiated in July 1987, addressed VOC contamination in the southeast corner of the depot. Two source areas have been confirmed with one only a few hundred feet from affected off-post wells. The preferred response measures under the FS are passive volatilization for contaminated soils (tilling soils within a specially constructed building); pumping and treating ground water; and providing an alternate water source to affected residents.

Remedial Design/ Remedial Action (RD/RA)

A treatability study is being conducted for the passive soil volatilization technology. The Army has been providing bottled water for 26 residences and one business since March 1987 and plans to extend the water line of the depot to affected residents in FY 91.

Tooele Army Depot (North Area)
Tooele County, Utah



Service:	Army
Size:	44,087 Acres
HRS Score:	53.95
Base Mission:	Store and supply equipment; Build and repair locomotives, wheeled vehicles, and transport cars
IAG Status:	Not started
Action Dates:	PA/SI completed 1980; Placed on NPL 1990; RI/FS initiated 1987
Contaminants:	Heavy metals, petroleum/oil/lubricants, PCBs, paint primers, cleaning, plating and explosive wastes
Funding to Date:	$9.96 million

Preliminary Assessment/ Site Inspection (PA/SI)

Historic disposal practices consisted of discharging wastes to evaporation or percolation ponds, detonation and burning, and burial at the demilitarization range. Consequently, ground water may be threatened by contaminant migration from the waste sites; plant and animal life in the area also could be affected.

The PA/SI identified potential ground water contaminant migration. Five sites present a significant threat to public health and the environment, including explosives found in the ground water beneath the TNT washout pond. Ground water is contaminated with volatiles at the Industrial Waste Lagoon (IWL).

A detailed SI was initiated in September 1989 and is addressing 23 sites.

Remedial Investigation/ Feasibility Study (RI/FS)

An environmental survey in 1982 indicated that TCE from the IWL was migrating to the northern boundary on post. An RI addendum report in 1989 concluded that a plume of ground water contamination containing TCE from the IWL extends off post approximately 2,500 feet. The RI/FS was initiated in September 1987. Additional ground water contamination was detected at the Sanitary Landfill and the TNT washout pond. A Phase 2 RI/FS was initiated in September 1989 and addresses six sites.

Remedial Design/ Remedial Action (RD/RA)

The IWL was granted interim status under RCRA in 1985. This required installation of monitoring wells, but the previously documented evidence of ground water contamination caused TEAD to enter into a Consent Decree with the State of Utah. As a result, a ground water quality assessment was conducted. The Consent Decree also required TEAD to cease discharging wastewater into the IWL and to close the lagoon. Closure of the lagoon was completed in 1989 and a ground water pump and treat system will be constructed in FY 91.

Tracy Defense Depot
Tracy, California

Service:	Defense Logistics Agency
Size:	443 Acres
HRS Score:	37.16
Base Mission:	Store and distribute food, medical, electronic, and industrial/construction equipment; and textiles for Armed Forces in the Western U.S. and Pacific
IAG Status:	Initiated and expected to be signed late 1990
Action Dates:	PA/SI completed 1982; RI/FS initiated 1986; Placed on NPL 1990
Contaminants:	Heavy metals, petroleum/oil/lubricants, VOCs, TCE, PCE
Funding to Date:	$6.45 million



Preliminary Assessment/ Site Inspection (PA/SI)

A PA/SI identified 29 sites of contamination on depot with strong contamination migration potential. All of these 29 sites will be included in the RI/FS investigations. The upper ground water aquifer, both on and off depot, is contaminated with both TCE and PCE beyond federal safety standard limits.

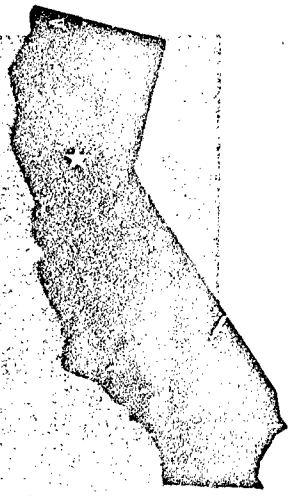
Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS began in September 1986, on 29 sites. In addition to the contaminated upper aquifer, the soil on depot is likewise contaminated. Ninety monitoring wells have been installed, and 61 soil borings and 180 soil vapor tests have been conducted.

Remedial Design/ Remedial Action (RD/RA)

An IRM contract awarded in September 1989 will lead to the construction of an air stripper to remove contaminants from the ground water. The estimated completion date for the stripper is the second quarter of 1991.

Travis Air Force Base
Solano County, California



Service:	Air Force
Size:	5,025 Acres
HRS Score:	29.49
Base Mission:	Military Air Command; Headquarters to 22nd Air Force; Medical Center
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	PA/SI completed 1985; RI/FS initiated 1986; Placed on NPL 1990
Contaminants:	VOCs, heavy metals, polynuclear aromatic hydrocarbons
Funding to Date:	$7.05 million

Preliminary Assessment/ Site Inspection (PA/SI)

The area around Travis AFB is primarily agricultural. Industrial operations on base include various shops where aircraft components are cleaned with solvents.

A PA/SI identified 14 sites potentially contributing to contamination due to past operations and disposal practices. These sites include old landfills, a closed sewage treatment plant, fire-fighting training areas, disposal pits, spill areas, and the storm drainage system. Volatiles present in the storm sewer system, particularly TCE, could possibly reach Union Creek. Point Arena AFS, an auxiliary installation occupying 81 acres on a mountain top in Mendocino County, contains both mercury and possibly VOC contamination.

Remedial Investigation/ Feasibility Study (RI/FS)

An RI/FS is underway to determine the type and extent of contamination and to identify alternatives for remedial action. Two additional sites have been added to the investigation, the Cyanide Disposal Pit (CDP), where approximately 250 pounds of cyanide were buried, probably in 1967; and the Grazing Management Units, where a swelling affliction has been observed in horses. Preliminary analysis indicates near impermeable, fine-grained alluvial sediments exist beneath the base. Localized buried sand and gravel channels represent likely pathways for contaminant migration. The ground water at Travis AFB contains naturally elevated concentrations of several metals and common anions. The contaminants detected in the ground water include volatile organics and metals. Metals and polynuclear aromatic hydrocarbons (PAHs) were detected in the surface water, sediments of the storm sewers, and Union Creek. Completion of the RI/FS is expected in 1993.

Remedial Design/ Remedial Action (RD/RA)

Twenty-seven UST's were removed from various IRP sites at Travis AFB in 1986. Additional RD/RA activities are scheduled for 1991.

Treasure Island Naval Station—Hunters Point Annex

San Francisco, California



Service:	Navy
Size:	936 Acres
HRS Score:	48.77
Base Mission:	Support Pacific Fleet
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	RI/FS initiated 1987; Placed on NPL 1989, PA/SI ongoing
Contaminants:	Paints, solvents, fuels, acids, bases, heavy metals, PCBs, asbestos, phenols, polyaromatic hydrocarbons, VOCs
Funding to Date:	$21.50 million

Preliminary Assessment/ Site Inspection (PA/SI)

Formerly the Hunters Point Naval Shipyard, Hunters Point Annex was established in 1869 as the first dry dock on the Pacific Coast. The Navy purchased the installation in 1939 and leased it to Bethlehem Steel Company. The Navy operated Hunters Point Annex as a shipbuilding and repair facility from 1941 until 1976. Triple A Machine Shop then leased the facility from 1976 to 1986 and subleased numerous buildings to private tenants. Testing in 1987 detected benzene, PCBs, toluene, and phenols in onsite ground water. A bottling company draws ground water from a spring approximately one mile from Hunters Point Annex. Offshore sediments contain elevated levels of heavy metals and PAHs. Area surface waters are used for recreational activities, commercial navigation, and fishing.

To date, the RI/FS has included 16 sites. An ongoing PA/SI is expected to identify 30 to 35 additional sites to be studied under the RI/FS. Four removal actions are planned for 1991, including site treatment, decontamination, and waste removal.

Remedial Investigation/ Feasibility Study (RI/FS)

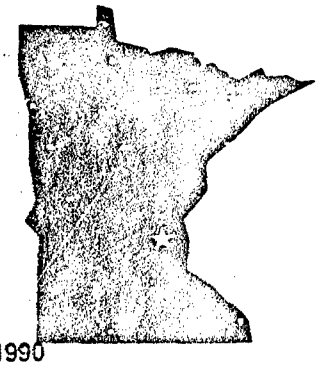
A TRC was formed in 1988 and members include representatives from COMNAVBASE San Francisco; Treasure Island Naval Station; Western Division, Naval Facilities Engineering Command; California Department of Health Services; California Regional Water Quality Control Board; Bay Area Air Quality Management District; EPA Region IX; the City and County of San Francisco; NOAA; Department of Interior, and a public representative appointed by the Mayor of San Francisco.

Completion of the RI/FS is expected in 1993.

Remedial Design/ Remedial Action (RD/RA)

Removal actions were implemented in 1987 and 1988 to clean up PCBs. Removal of asbestos was undertaken and completed in 1990. RD/RA work will begin after completion of RI/FS activities.

Twin Cities Air Force Reserve Base (Small Arms Range Landfill)
Minneapolis, Minnesota



Service: Air Force

Size: 280 Acres

HRS Score: 33.62 (One site only, Small Arms Range Landfill)

Base Mission: Tactical Airlift

IAG Status: Pre-ROD IAG signed by the Air Force and USEPA Region V November 1989; Public comment period completed January 1990

Action Dates: PA completed 1983; SI completed 1986. RI completed in 1989; Placed on NPL 1987

Contaminants: Oil/petroleum/lubricants, spent solvents and cleaners, battery acid, strippers, painting wastes (containing metals such as chromium), PCB-contaminated oils, chlorinated hydrocarbons

Funding to Date: $2.49 million

Preliminary Assessment/ Site Inspection (PA/SI)

The Air Force Reserve completed a PA in March 1983 and an SI in April 1986. This study identified 10 sites as potentially harmful to the environment. The Small Arms Range Landfill was placed on the NPL in July 1987 with an HRS score of 33.62. It is located on non-contiguous property 2 miles from the main base property, and was the primary solid waste disposal site for the base from 1963 to 1972. The landfill primarily contains general refuse, but industrial waste products may have been buried or burned in this landfill. These products include paint thinners and removers, paint, primers, lacquers, paint filters that contained chromium in the paint, and 100 to 200 gallons of leaded fuel sludge. This landfill is almost 3 acres, and is located adjacent to the Minnesota River within the 100-year flood plain. The northern boundary of the Minnesota Valley National Wildlife Refuge lies 500 feet from the landfill. It flooded once in 1965. The EPA HRS staff estimated 64,700 people living in the Minneapolis-St. Paul metropolitan area depend on public and private wells for drinking water within a 3-mile area of the landfill.

The other nine sites include a landfill, fuel spills, sludge burial pits, hazardous waste drum storage area, battery shop leaching pit, and UST. The PA/SI identified a possible plume of AVGAS on the ground water table at the Past Fuel Site, and also identified additional potential for contamination problems.

An SI is underway for two sites, Temporary Landfill and Hangar P-1 Area. Field work for this project is estimated to be completed by the end of 1990.

Remedial Investigation/ Feasibility Study (RI/FS)

For the NPL site, Small Arms Range Landfill, initial investigation studies were completed in 1986. Ground water investigation results indicate low concentrations of most compounds found at the site were detected. Results of the first round of ground water sampling showed traces of some volatile aromatic compounds; methylene chloride, 1,2-DCE, acetone, 2-butane, chloroform, TCE, benzene, and toluene. Only TCE was detected above federal MCLs in the upgradient well, which suggests an off base source. Also detected was the organic compound bis (2-ethylhexyl) phthalate, which was slightly above the Minnesota Recommended Allowable Limit (RAL) in one sample. Some metals were detected, but the levels were very low, (below SDWA MCLs,) and are attributed

Twin Cities Air Force Reserve Base (Small Arms Range Landfill)
Minneapolis, Minnesota

(Continued)

to background and not the landfill. The second round of sampling detected 1,2-DCE significantly below federal MCLs, bis(2-ethylhexyl) phthalate below state RALs, di-n-butylphthalate, and caprolaccam in low concentrations. Metals were detected in the second round of sampling, but again in low concentrations below the SDWA MCLs. The 12 monitoring wells around the site screen the ground water from 5 to 60 feet below level surface.

Negotiations for an FFA between the Air Force, EPA, and the State of Minnesota concluded on August 15, 1989. Due to differences between the DoD and State of Minnesota on the issue of reimbursement, the FFA has only been signed by the Air Force and EPA.

The RI/FS for one site, Past Fuel Spill, it scheduled for completion in January 1990. A plume of AVGAS has been discovered floating on the ground water table and migrating to the southwest. A variation of the pump and treat method has been chosen as the remediation alternative. This will involve pumping the contaminated water to the surface, separating out the liquid AVGAS, discharging the treated water to the sanitary or storm sewer, and disposing of the AVGAS at an appropriate facility.

An RI/FS is currently underway for five other sites: MOGAS Spill, Suspected Oil Spill Area, former Hazardous Waste Drum Storage Area, Underground Tank Leak, and Battery Acid Leaching Pit. Field work for these sites was completed in July 1990 and the draft RI report is estimated to be completed in November 1990.

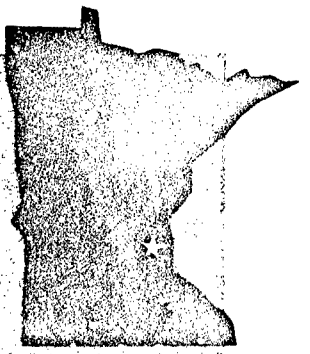
Remedial Design/ Remedial Action (RD/RA)

Preliminary recommendations in the FS indicate that RD/RA is not technically required to address the low levels of contaminants identified.. Long-term monitoring has been presented in the draft FS report, but must be reviewed by EPA.

The remedial design for the pump and treat system at the Past Fuel Spill Site was completed in August 1990. Construction of the system should begin in October 1990. The system is expected to be operational by mid-1991.

Remedial action was accomplished at one site, JP-4 Spill Site, between 1984 and 1985. A state-approved venting system was installed, and effluent contaminant levels decreased until they were no longer detectable in laboratory analysis. The system was removed upon state concurrence that the site does not pose a threat to human health or the environment.

Twin Cities Army Ammunition Plant
New Brighton, Minnesota



Service:	Army
Size:	2,560 Acres
HRS Score:	59.16
Base Mission:	Small arms and projectile casing manufacture
IAG Status:	Pre-ROD IAG signed 1987 with EPA and State of Minnesota
Action Dates:	RI/FS initiated 1981; Placed on NPL 1982; PA/SI completed 1983
Contaminants:	VOCs, heavy metals, solvents, acids and caustics, fuels, cleaners, paints, explosives
Funding to Date:	$27.87 million

Preliminary Assessment/ Site Inspection (PA/SI)

Sources located on the Twin Cities Army Ammunition Plant (TCAAP) have contaminated ground water primarily with VOCs. The contamination affects water supplies for the cities of New Brighton and St. Anthony, located 2.5 and 4.5 miles downgradient, respectively. The PA/SI verified the presence of 14 potentially contaminated sites. Concurrent field investigations conducted since 1981 verified three major sources of regional ground water contamination. Site D is a former series of earthen impoundments used for industrial waste disposal. Site G is a former landfill used for building and industrial waste disposal. Site I (Building 502) is the area where industrial operations introduced VOCs to the ground water system. Two other sites have contributed to perched ground water contamination. These sites consist of Site A, a former disposal area for industrial waste, and Site K (Building 103), where industrial operations introduced VOCs to the ground water system. The remaining 14 sites have not contributed significantly to ground water contamination at TCAAP.

Remedial Investigation/ Feasibility Study (RI/FS)

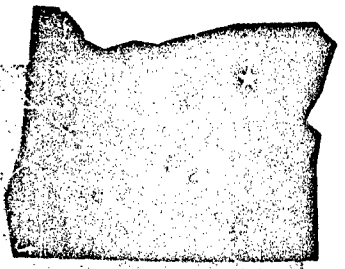
Honeywell, Inc., an industrial tenant of TCAAP, and the Department of the Army (DA) have installed approximately 300 monitoring wells both on and off the plant to define the magnitude and extent of ground water contamination. The FFA requires the DA to complete an RI on TCAAP and requires EPA to conduct an investigation of off-plant areas. These efforts are progressing. The FS will be conducted by DA following the completion of the RI.

Remedial Design/ Remedial Action (RD/RA)

A regional ground water treatment system has been installed that extracts and treats ground water, prevents contaminant migration beyond plant boundaries, and contains highly contaminated ground water within the plant interior.

Additional efforts to preclude ground water contamination include installation of two ISV systems at Sites D and G, ground water treatment at Site I, incineration of contaminated soils, and provision of contaminated soil storage facilities. Efforts also are being conducted at Sites A and K to prevent contamination from migrating within the perched ground water system.

Umatilla Army Depot
Hermiston, Oregon



Service:	Army
Size:	19,729 Acres
HRS Score:	31.31
Base Mission:	Ammunition storage
IAG Status:	Pre-ROD IAG signed October 1989
Action Dates:	PA/SI completed 1990; Placed on NPL 1987; RI/FS initiated 1989
Contaminants:	Metals, red fuming nitric acid, pesticides, RDX, nitrates, TNT, TNB, HMX, DNT isomers
Funding to Date:	$9.97 million

Preliminary Assessment/ Site Inspection (PA/SI)

The PA/SI identified and targeted several major contaminant sources for RI/FS work. These areas contained explosive wastes and UXO. Ground water under the washout lagoons was contaminated with cyclonite (RDX), nitrates, TNT, TNB, HMX, and DNT. An enhanced PA in support of base closure activities was prepared concurrently with the RI/FS work plan under the IAG. The enhanced PA was submitted in April 1990.

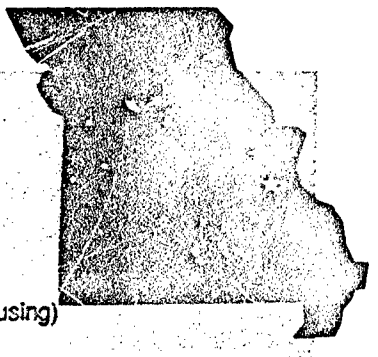
Remedial Investigation/ Feasibility Study (RI/FS)

A Phase I RI determined the washout lagoons had contaminated the alluvial aquifer with TNT, RDX, HMX, TNB, DNT, and nitrates. In addition, the shallow basalt aquifer contained very trace quantities (approximately 1 ppb) of explosives. Several SWMUs, including the deactivation furnace, active and inactive landfills, the ammunition demolition area, and several septic tanks, showed various industrial and explosive contaminants. A Phase II RI was initiated in August 1989. Work conducted under the IAG will cover 55 sites, 22 of which are in the ammunition demolition area. RI field work was initiated in May 1990. Field work for asbestos and radon assessments in support of the base closure mission was initiated in FY 90.

Remedial Design/ Remedial Action (RD/RA)

A treatability study of biological treatment by composting has begun at the explosive washout lagoons. The composting began in September 1990 and is anticipated to continue 12 to 14 months.

Weldon Spring Ordnance Works
St. Charles County, Missouri



Service:	Army
Size:	15,577 Acres
HRS Score:	30.26
Base Mission:	Formerly used in support of the Ordnance Works Production Area (Bunkers, Mechanical Shop, and Housing)
IAG Status:	Pre-ROD IAG signed 1990, Public Comment Period expires October 10, 1990
Action Dates:	PA/SI completed 1977; Listed on NPL 1990; RI/FS began 1990
Contaminants:	TNT, DNT, lead
Funding to Date:	$16.81 million

Preliminary Assessment/ Site Inspection (PA/SI)

The Weldon Spring Ordnance Works is composed of two major components: the active portion is a 1,655-acre area where TNT and DNT were produced during World War II; the inactive portion is a 15,577-acre area that provided support facilities, such as water treatment, storage magazines, power plants, heat plants, classrooms, and housing, to the production area. Adjacent to the active site is the 230-acre former Atomic Energy Commission (AEC) facility, which processed uranium from 1957 to 1966 and is listed separately on the NPL with DOE and DA as the PRPs. The AEC is located on an area that was originally part of several TNT production lines. As a result of an OMB decision and an MOU between the DA and DOE, the Army is funding DOE for part of the Chemical Plant remedial work. The direct ingestion of surface water by humans is not considered to be a source of exposure because the local residents do not use the water for potable purposes or swimming. Consumption by game animals is a potential route of exposure. Consumption of fish is a potential medium for human exposure; however, the constituents of concern have very low bioconcentration factors and are not expected to bioconcentrate in aquatic organisms.

Remedial Investigation/ Feasibility Study (RI/FS)

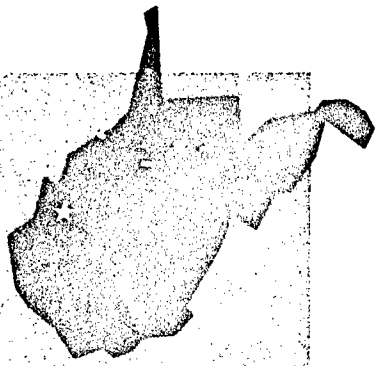
During the RI on the active portion of the site, 8,000 surface soil samples were taken, subsurface soil samples were taken at 41 locations, 24 monitoring wells were installed onsite, 14 monitoring wells were installed offsite, water was sampled at 10 springs and 8 lakes, sediment was sampled at 8 lakes, and soil vapor testing was conducted in 4 areas. A wooden pipeline was mapped using ground penetrating radar at 270 locations and sampled at 24 locations. Nitroaromatics and VOCs were detected in the ground water, nitroaromatics and lead were detected in the surface soil, and nitroaromatics were detected in the wooden pipeline. TRC members include EPA, State of Missouri, School District, DOE, St. Charles County Committee Against Hazardous Waste, Missouri Research Park, Village of Weldon Spring Heights, and the St. Charles Emergency Management Association.

The $1.1 million RI/FS for the FUDS portion of the NPL site was initiated in 1990.

Remedial Design/ Remedial Action (RD/RA)

RD/RA work will begin after completion of RI/FS activities.

West Virginia Ordnance Works
Point Pleasant, West Virginia



Service:	Army
Size:	6,323 Acres
HRS Score:	35.72
Base Mission:	Deactivated in 1946; Established in 1942 and produced TNT from toluene for the World War II war effort
IAG Status:	First OU IAG signed April 1987; Second OU IAG signed July 1989
Action Dates:	PA/SI completed 1982; Placed on NPL 1984; RI/FS initiated 1984. ROD for OU #1 signed 1987; ROD for OU #2 signed 1988; Omaha District assigned RD for Second OU cleanup in November 1989
Contaminants:	Nitroaromatic residues
Funding to Date:	$12.40 million

Preliminary Assessment/ Site Inspection (PA/SI)

In May 1981, red water seepage was observed adjacent to Pond 13 in McClintic State Wildlife Station (MSWS). The pond was located near the former TNT wastewater trunk sewerlines and pumping station. Studies by the West Virginia Department of Natural Resources and EPA contractors in 1981 and 1982 showed 2,4-TNT, 2,6-TNT, 2,4,6-TNT, and phenol present in the ground water. A 1984 archives search of the West Virginia Ordnance Works (WVOW) concluded that, based upon contaminant sources and the hydrogeologic setting of WVOW, the potential existed for contamination migration through surface and ground water pathways.

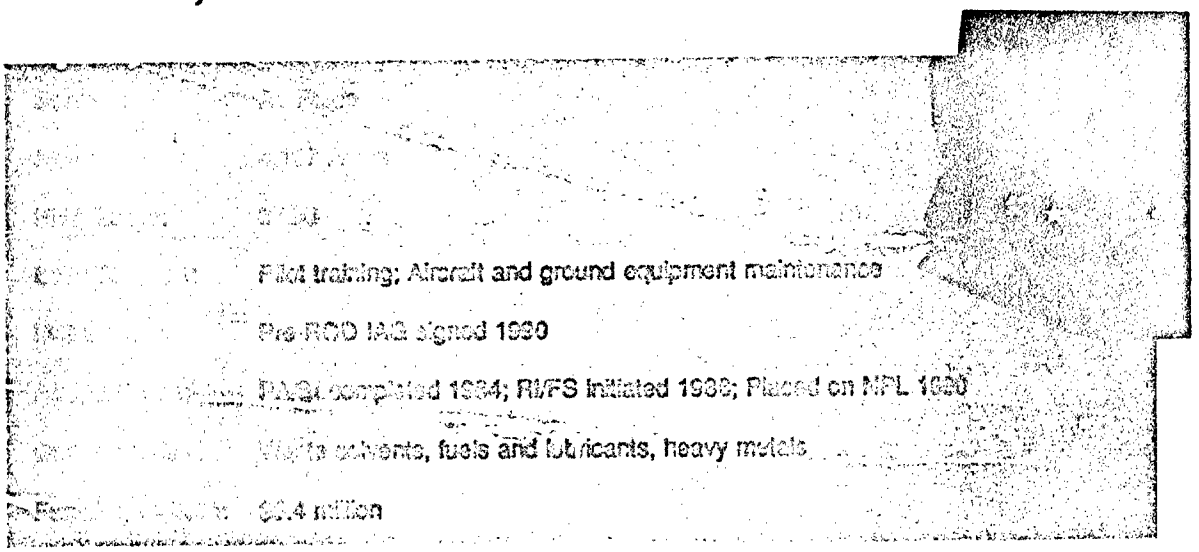
Remedial Investigation/ Feasibility Study (RI/FS)

In 1984, the Army contracted for an RI to quantify the extent of contamination, a human health and environmental endangerment assessment (EA), and an FS to identify and assess remedial action alternatives. The RI, completed in 1985, determined that major contaminant source areas were soils in the TNT manufacturing area, underground process lines, and soils in a burning grounds area. The deep aquifer under the manufacturing area and the ground water in the burning grounds area were not contaminated. To expedite cleanup, activities were divided into two OUs: the manufacturing area, burning grounds area, and industrial sewer lines; and the acids area/yellow water reservoir, red water reservoirs, and Pond 13/Wet Well site. An FS for the first OU was completed in 1986 and for the second OU in 1988. The ROD for the second unit called for capping two red water ponds, and building two ponds on the MSWS, capping Pond 13, pumping and treating related ground water, and purchasing of an industrial park at the acids area/yellow water reservoir for incorporation into MSWS.

Remedial Design/ Remedial Action (RD/RA)

A contract was awarded in 1987 by the Army to perform remedial actions on the first OU. Field work was conducted in 1988 and consisted of excavation and flaming of industrial sewerlines and flaming the surface of the burning ground. A soil cap was then placed over contaminated soils at the TNT manufacturing and burning grounds area. A $4.6 million contract for capping the two red water ponds was awarded on August 31, 1990. Construction is to begin in the spring of 1991. Capping material will be removed from a clean borrow near the yellow water reservoir; the borrow area subsequently will be converted to a 13 to 15-acre wetlands. A pre-design will be completed in-house in late 1990 for capping the yellow water pond, Pond 13, and two wet wells; a complete ground water treatment system, and a 35 percent stage design of the wetlands area for approval by EPA.

Williams Air Force Base
Chandler, Arizona



Preliminary Assessment/ Site Inspection (PA/SI)

Irrigated farmland and desert surround Williams AFB. Past disposal practices have contaminated soils with heavy metals and ground water with petroleum products. The Air Force has completed an initial assessment and the potentially contaminated areas include a past fire protection training area, drainage systems, and landfill and spill areas.

Remedial Investigation/ Feasibility Study (RI/FS)

A work plan has been developed for an RI/FS to determine the type and extent of contamination and to identify alternatives for remedial action. Field investigations are underway.

Remedial Design/ Remedial Action (RD/RA)

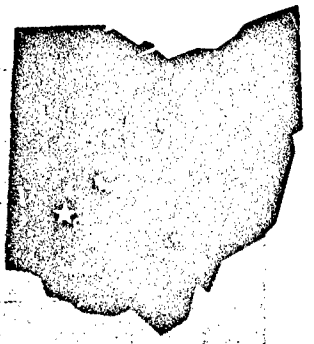
The Southwest Draining System was remediated in 1988 by installing a soil cement and concrete cap on the upper 350 feet of the ditch. This action was agreed to by State of Arizona regulatory officials.

Monitoring wells approximately 350 feet deep have been installed at the liquid fuels storage area to determine the extent of vertical migration of leaked fuel. Shallow wells approximately 250 feet deep have been installed to plot the extent of this plume. Pump tests have been conducted to gather data needed for remedial design of a proposed pump and treat facility. Continuous fuel recovery has been started.

Ten sites at Williams AFB are not expected to require further action. The necessary documentation has been completed. Two OUs have been established. OU2 is the liquid fuel storage area and is the first to be considered. OU1 is the final remedy for the remediation of the sites. Two proposed plans and two RODs will be prepared.

In 1990, several abandoned USTs were removed. IRAs planned for 1991 include the removal of 23 USTs and associated contaminated soils. This will include the 13 USTs located at the liquid fuels storage area. A draft of the ROD for OU2 is expected by July 1992 and for OU1 by September 1993. RD/RA activities are expected to begin in 1993-94.

Wright-Patterson Air Force Base
Dayton, Ohio



Service:	Air Force
Size:	8,511 Acres
HRS Score:	57.85
Base Mission:	Headquarters to Air Force Logistics Command, Aeronautical Systems Division and Air Force Institute of Technology; Medical Center
IAG Status:	Initiated and expected to be signed FY 91
Action Dates:	RI/FS initiated 1986; Placed on NPL 1989
Contaminants:	Waste oil and fuels, acids, plating wastes, solvents, pesticides, batteries, radioactive wastes
Funding to Date:	$29.4 million

Preliminary Assessment/ Site Inspection (PA/SI)

Past Air Force activities in support of operational missions have created 62 unlined waste disposal areas throughout the base, including landfills, spill sites, fire training areas, and coal storage piles. As a result, contamination of the aquifer that is used by the city of Dayton and the base for drinking water has occurred.

Known sites were rated in 1982 during the first phase of the IRP. Twenty-four sites located on the base contained hazardous material. At present, 62 sites have completed PAs and 17 are proceeding into SIs.

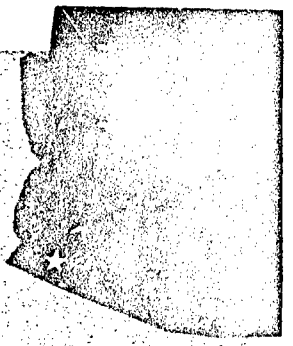
Remedial Investigation/ Feasibility Study (RI/FS)

On November 2, 1989, the RI/FS contract was awarded for 39 sites. The RI/FS currently is scheduled to be completed in the year 2002. Landfills 8 and 10 have been the highest concern due to their proximity to the Woodland Hills residential area. Both landfills were a trench and cover operation for disposal of general refuse and chemical waste. Ground water in the vicinity of Landfill 8 is contaminated with benzene and TCE. Landfill 10 is contaminated with VOCs. However, complications have arisen with landfill subsidence, gas generation and venting, and seepage of leachate. In June 1987, the USGS performed a hydrogeological assessment of the strata underlying the base to understand ground water movement and the direction of contaminant migration. The complete USGS study will provide a technical foundation for future base-wide IRP activities. Regional ground water flows in a southwesterly direction toward the city of Dayton's drinking water well fields. The existence of permeable soils in the area exacerbates this concern. IAG negotiations have stalled due to state and EPA disagreements. The base is under an Administrative Order of Consent (February 1988) specifying site RI and cleanup processes.

Remedial Design/ Remedial Action (RD/RA)

Drinking water from base wells is being treated for VOC contamination. Biological treatment of a 3,000-gallon JP-4 spill was completed in July 1990. Additional removal action activities, such as drum removal, leachate collection, and offsite migration mitigation, were initiated in 1990.

Yuma Marine Corps Air Station
Yuma, Arizona



Service:	Navy
Size:	3,000 Acres
HRS Score:	32.24
Base Mission:	Tactical aircrew combat training
IAG Status:	Initiation expected December 1990
Action Dates:	PA completed 1985; SI combined with RI/FS and initiated 1989; Placed on NPL 1990
Contaminants:	VOCs, waste fuels, oils, degreasers, solvents paints, PCBs, pesticides, herbicides, photographic chemicals
Funding to Date:	$958,500

Preliminary Assessment/ Site inspection (PA/SI)

Ground water is a potable water source for Yuma Marine Corps Air Station (MCAS), the city of Yuma, and for industrial and agricultural purposes. Past disposal practices contaminated soils and ground water. A PA/SI identified 12 potentially contaminated sites, and recommended that two sites be studied further to confirm contamination. An SI was completed for these two sites in early 1988. In response to a State of Arizona request made in July 1988, 11 of the 12 original IAS sites and two additional sites were investigated further.

Remedial Investigation/ Feasibility Study (RI/FS)

A TRC has been formed and the first meeting was held in April 1990. Members include representatives from the City of Yuma; the Arizona Department of Environmental Quality; EPA Region IX; Yuma MCAS; Southwest Division, Naval Facilities Engineering Command; and the public. Development of the RI/FS work plan began in November 1990.

Yuma MCAS was listed on the NPL in February 1990. Subsequently, EPA assigned a separate remedial project manager for the base. The Navy is preparing a first draft of an FFA and intends to initiate and finalize negotiations with EPA and the State of Arizona in 1991, prior to the implementation of RI/FS field work.

Remedial Design/ Remedial Action (RD/RA)

Although no RD/RA activities are currently planned, removal actions will be considered if an imminent threat is identified.

Appendix C
Status of IRP Installations

This Appendix to the Annual Report includes three tables that summarize the status of activities at all DoD installations included in the IRP as of the end of FY 90.

Table C-1 summarizes IRP site status by state. These same data are broken down in Table C-2 by state, DoD component (Army, Navy, Air Force, and Defense Logistics Agency), and installation. Table C-3 provides a status summary by DoD component.

The status abbreviations used in this Appendix are as follows:

C – Number of sites for which a particular study or action has been completed

U – Number of sites with a particular study or action underway

F – Number of sites scheduled to have a study or action performed in the future

N – Number of sites that require no further action.

Installation status is designated as follows:

Italicized – The installation is listed on the NPL

● – The installation has a signed IAG

♦ – The installation is covered under a DSMOA.

Table C-2

Department of Defense Environmental Restoration Program

Installation Restoration Program Status Summary As of September 30, 1990

	Total # of Installations	Total # of Sites	PA			
			C	U	F	N
Alabama	45	599	541	18	0	150
Alaska	51	600	536	55	9	3
Arizona	19	319	306	12	1	43
Arkansas	33	285	281	4	0	117
California	141	2,041	1,791	241	9	211
Colorado	22	387	380	7	0	42
Connecticut	24	103	102	1	0	64
Delaware	11	142	142	0	0	22
District of Columbia	9	22	22	0	0	2
Florida	61	529	512	17	0	137
Georgia	36	474	461	13	0	86
Guam	9	105	100	5	0	0
Hawaii	46	235	211	24	0	6
Idaho	20	88	85	3	0	42
Illinois	60	551	541	9	1	278
Indiana	29	343	342	1	0	127
Iowa	27	184	184	0	0	126
Kansas	40	322	317	5	0	122
Kentucky	30	425	424	1	0	85
Louisiana	31	201	191	10	0	112
Maine	18	118	101	7	10	35
Maryland	54	540	526	9	5	92
Massachusetts	28	307	291	13	3	61
Michigan	36	234	229	4	1	101
Minnesota	29	224	223	1	0	160
Mississippi	29	216	209	7	0	89
Missouri	35	266	259	7	0	105

Number of Sites

SI				RI/FS				RD			RA		
C	U	F	N	C	U	F	N	C	U	F	C	U	F
282	27	50	0	32	110	86	0	17	8	70	14	20	62
490	17	46	75	77	323	30	46	44	48	105	44	67	104
266	16	1	1	8	95	1	3	4	27	56	3	24	59
156	1	1	1	31	64	0	0	29	3	8	23	3	8
1,332	362	38	169	106	801	289	35	11	295	474	18	321	482
339	0	2	7	180	73	0	12	1	174	23	1	176	23
24	7	6	2	0	12	1	0	0	0	3	0	0	3
119	0	1	2	0	115	1	3	0	2	15	0	3	15
15	2	3	3	0	4	1	0	1	0	3	1	1	4
257	119	8	15	39	165	92	6	3	22	193	4	21	194
264	13	19	16	9	54	11	0	0	22	41	0	20	42
77	23	1	43	1	32	25	0	0	2	25	1	3	26
156	48	4	56	6	35	49	0	1	2	47	1	10	46
36	1	0	0	0	23	0	0	2	6	4	2	6	4
243	13	6	44	10	118	9	6	6	10	20	8	8	28
165	42	0	1	0	17	30	0	0	0	34	0	1	33
56	2	0	0	0	47	2	0	2	1	6	2	1	6
189	4	2	2	8	35	60	7	0	1	13	4	2	13
257	3	80	3	0	1	6	0	0	1	5	0	0	6
87	7	3	9	10	53	5	7	1	2	31	1	3	31
55	7	11	1	1	50	14	0	1	4	33	1	7	33
367	18	44	99	6	76	75	6	3	18	44	5	19	45
118	48	53	0	16	84	92	8	0	11	111	1	20	109
109	8	2	13	6	48	10	4	3	14	27	3	13	29
47	3	4	0	9	37	0	5	1	19	15	2	18	18
53	25	46	1	39	23	10	12	8	6	32	14	11	25
120	7	0	0	10	48	51	8	0	3	28	7	3	21

(Continued)

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Table C-1

Department of Defense Installation Restoration Program
Installation Restoration Program Status Summary As of September 30, 1991

	Total # of Installations	Total # of Sites	PA			
			C	U	F	N
Montana	12	79	76	3	0	45
Nebraska	27	165	164	1	0	51
Nevada	7	184	183	1	0	34
New Hampshire	8	73	67	6	0	21
New Jersey	25	313	298	13	2	43
New Mexico	19	242	240	2	0	24
New York	88	664	649	15	0	329
North Carolina	41	312	304	8	0	91
North Dakota	10	56	55	1	0	30
Ohio	57	481	445	35	1	230
Oklahoma	52	299	291	8	0	105
Oregon	17	184	184	0	0	36
Pennsylvania	102	669	666	2	1	437
Puerto Rico	8	79	79	0	0	0
Rhode Island	19	76	71	5	0	36
South Carolina	30	299	284	15	0	115
South Dakota	4	47	47	0	0	16
Tennessee	26	258	245	13	0	42
Texas	104	938	918	20	0	293
Trust Territories	2	26	26	0	0	0
Utah	21	417	400	16	1	62
Vermont	6	25	25	0	0	17
Virgin Islands	1	2	0	2	0	0
Virginia	68	868	866	2	0	148
Washington	50	483	466	15	2	94
West Virginia	30	114	113	1	0	88
Wisconsin	41	265	264	0	1	190
Wyoming	7	44	43	0	1	5
Grand Totals	1,855	17,482	16,776	658	48	5,000

Number of Sites

SI				RI/FS				RD			RA		
C	U	F	N	C	U	F	N	C	U	F	C	U	F
21	8	2	0	0	28	0	0	0	0	8	0	3	8
101	8	1	0	0	93	10	0	58	2	13	58	3	13
157	0	7	6	12	43	16	0	0	2	36	0	1	36
41	1	0	7	8	20	0	5	0	4	9	1	11	8
212	26	28	10	12	125	71	4	0	45	146	0	41	150
216	2	0	0	7	53	18	0	2	7	18	1	7	18
234	64	16	2	16	79	33	8	6	24	38	6	24	41
201	12	3	60	9	90	4	4	1	15	36	5	11	36
15	6	2	3	0	9	5	0	0	3	7	0	3	7
120	80	12	31	2	115	18	0	0	69	10	0	90	10
184	3	1	0	13	109	47	5	5	21	24	8	19	26
120	19	0	41	0	93	9	0	0	0	93	0	0	93
156	54	14	45	16	79	44	7	9	5	47	3	13	50
56	10	13	9	1	55	6	0	0	10	52	5	10	52
33	0	2	9	0	16	6	0	0	0	10	0	2	11
154	16	0	21	9	67	38	2	0	15	49	4	24	49
26	1	0	0	3	20	3	0	0	0	4	0	2	2
172	32	1	32	0	128	10	0	2	3	86	2	8	86
548	21	31	49	82	183	118	38	24	60	69	31	55	62
23	3	0	0	0	23	3	0	0	0	26	0	0	26
288	34	32	36	19	121	27	6	1	20	76	0	21	74
2	1	4	0	0	2	0	0	0	0	2	0	0	2
1	0	1	0	0	0	0	0	0	0	0	0	0	0
406	13	318	132	73	142	18	2	9	27	128	4	37	129
355	16	10	53	23	208	79	4	1	29	80	4	20	88
18	1	4	0	6	14	0	0	3	3	10	4	3	10
56	2	1	2	0	24	1	0	1	1	10	0	2	10
31	7	1	0	1	29	6	0	1	0	6	0	0	6
9,625	1,263	935	1,111	916	4,511	1,540	250	261	1,066	2,559	296	1,191	2,572

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Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
ALABAMA																			
ARMY																			
AFRC Birmingham	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Cullman	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Gadsden	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alabama AAP ●	36	36	0	0	0	31	0	5	0	29	2	0	0	12	2	0	12	2	0
Anniston Army Depot ●	45	45	0	0	0	45	0	0	0	0	44	0	0	3	3	11	1	5	11
Coosa River Storage Annex (Anniston)	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Fort McClellan	60	60	0	0	0	3	16	41	0	0	0	18	0	0	0	0	0	0	0
Fort Rucker	106	106	0	0	0	106	0	0	0	0	39	62	0	0	0	39	0	0	37
Phosphate Dev Works	31	31	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1
Redstone Arsenal	71	71	0	0	0	70	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Abbeville	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Anniston	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Beltline	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Birmingham 01	14	14	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Birmingham 02	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Cropwell (ASF 155)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Dothan	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Elba	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Enterprise	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Foley	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Rucker (ASF 157)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Rucker (ECS 113)	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Gadsden	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Holt	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Huntsville (Patton Rd)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Jasper	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lincoln (Talladega)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Marion, AL	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Mobile (Wright)	12	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Montgomery (Moniac)	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Montgomery (Screws)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Opelika	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC OPP	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Sheffield	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Troy	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Tuscaloosa	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Tuskegee	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC York, AL	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	500	500	0	0	150	255	16	47	0	30	85	80	0	15	6	50	13	7	49
AIR FORCE																			
Abston AGS	5	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Birmingham Municipal Airport	16	13	3	0	0	4	5	0	0	0	3	6	0	0	0	6	0	0	6
Dannelly Field ANG	5	5	0	0	0	0	5	0	0	0	5	0	0	0	0	5	0	0	5
Gunter AFB	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Hall AGS	4	0	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Maxwell AFB	23	19	4	0	0	19	0	0	0	2	13	0	0	2	2	9	1	13	2
Montgomery AGS	5	4	1	0	0	4	0	1	0	0	4	0	0	0	0	0	0	0	0
AIR FORCE TOTALS	59	41	18	0	0	27	11	3	0	2	25	6	0	2	2	20	1	13	13
ALABAMA TOTALS	559	541	18	0	150	282	27	50	0	32	110	86	0	17	8	70	14	20	62

(Continued)

Table C-2

Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
ALASKA																			
ARMY																			
Fort Greely ♦	21	21	0	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Richardson ♦	39	39	0	0	0	38	1	0	0	0	38	1	0	0	0	2	0	0	2
Fort Wainwright ♦	50	50	0	0	1	8	13	29	0	4	2	2	0	3	1	3	3	8	1
Gerstle River Test Site ♦	5	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	115	115	0	0	1	72	14	29	0	4	40	3	0	3	1	5	3	8	3
NAVY																			
FLTSURSPTCMD DET 1 Amchitka ♦	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
NAS Adak ♦	32	32	0	0	0	31	1	0	24	0	7	1	0	0	0	8	0	1	8
NAVARCLAB Barrow ♦	13	13	0	0	0	13	0	0	9	0	4	0	0	0	0	4	0	1	4
NOSC Special Areas Alaska ♦	8	0	8	0	0	0	0	8	0	0	0	7	0	0	0	7	0	0	9
NAVY TOTALS	54	45	9	0	0	44	1	8	33	0	11	8	0	0	0	19	0	3	21
AIR FORCE																			
Alaskan Dewline ♦	51	51	0	0	2	50	0	0	12	39	0	0	33	0	0	0	0	0	0
Bear Creek RRS ♦	9	9	0	0	0	9	0	0	0	0	2	0	0	0	0	0	0	0	0
Bethel RRS ♦	11	0	11	0	0	0	9	0	0	0	0	9	0	0	0	0	0	2	0
Big Mountain RRS ♦	2	1	0	1	0	1	0	1	0	0	1	0	0	0	1	0	0	1	0
Campion AFS ♦	8	7	1	0	0	7	0	0	0	2	4	2	0	0	1	6	0	1	6
Canyon Creek ♦	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
Cape Lisburne AFS ♦	6	6	0	0	0	6	0	0	6	1	5	0	0	0	6	0	0	6	0
Cape Newenham AFS ♦	6	6	0	0	0	6	0	0	6	1	5	0	0	6	0	0	6	0	0
Cape Romanzof AFS ♦	17	17	0	0	0	17	0	0	0	0	17	0	0	0	0	0	0	0	0
Clear AFB ♦	15	15	0	0	0	15	0	0	1	14	0	0	13	0	5	0	0	5	0
Clear AFS	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
Cold Bay AFS ♦	4	4	0	0	0	4	0	0	0	1	3	0	0	0	1	3	0	1	3	
Duncan Canal RRS ♦	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0	
Eielson AFB ♦	64	47	11	6	0	47	0	6	0	0	51	1	0	0	17	26	0	14	27	
Elmendorf AFB ♦	56	48	8	0	0	48	1	0	0	2	43	6	0	0	2	5	0	4	3	
Fire Island ♦	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0	
Fort Yukon AFS ♦	5	5	0	0	0	5	0	0	0	0	5	0	0	0	0	5	0	0	5	
Galena Airport ♦	10	9	1	0	0	9	0	0	0	0	9	0	0	0	0	6	0	1	6	
Gold King Creek Radio Relay Site ♦	2	2	0	0	0	2	0	0	0	1	1	0	0	0	1	0	0	1	0	
Granite Mountain RRS ♦	2	1	0	1	0	1	0	1	0	1	1	0	0	0	1	0	0	1	0	
Indian Mountain Research Site ♦	20	20	0	0	0	20	0	0	0	0	20	0	0	0	1	10	0	1	10	
Kalakaret Creek RRS ♦	2	1	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	
King Salmon AFS ♦	19	18	1	0	0	18	0	0	0	0	17	0	0	0	1	0	0	4	0	
Kotzebue ♦	7	6	1	0	0	6	0	0	0	0	5	1	0	0	0	0	0	0	0	
Kulis ANG Base ♦	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Murphy Dome AFS ♦	8	8	0	0	0	8	0	0	0	0	8	0	0	0	0	6	0	0	6	
Naknek Recreation Camps	3	3	0	0	0	3	0	0	0	0	3	0	0	0	3	0	0	3	0	
Nikolski Radio Relay Site ♦	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Nome Tank Farm ♦	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	
North River Radio Relay Site ♦	2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ocean Cape Radio Relay Site ♦	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0	
Pillar Mountain RRS ♦	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	1	
Fort Heiden Radio Relay Site ♦	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0	
Shemya AFB ♦	52	42	10	0	0	42	0	0	0	2	40	0	0	23	1	0	23	3	0	
Smugglers Cove Radio Relay ♦	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0	
Seldotna RRS ♦	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0	
Sparrevohn AFS ♦	9	8	1	0	0	8	0	0	0	0	8	0	0	0	0	8	0	1	8	

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
Tatalina AFS ♦	13	13	0	0	0	13	0	0	11	1	11	0	0	12	0	0	12	0	0
Tin City AFS ♦	11	11	0	0	0	11	0	0	6	1	5	0	0	0	0	1	0	0	1
Unalakaleet RRS ♦	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
AIR FORCE TOTALS	427	372	46	9	2	370	2	9	42	73	268	19	46	41	47	77	41	56	76
DEFENSE LOGISTICS AGENCY																			
DFSP Anchorage ♦	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	1
DFSP Fairbanks ♦	2	2	0	0	0	2	0	0	0	0	2	0	0	0	0	2	0	0	2
DFSP Whittier ♦	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	1
DEFENSE LOGISTICS AGENCY TOTALS	4	4	0	0	0	4	0	0	0	0	4	0	0	0	0	4	0	0	4
ALASKA TOTALS	600	536	55	9	3	490	17	46	75	77	323	30	46	44	48	105	44	67	104
ARIZONA																			
ARMY																			
Fort Huachuca	62	62	0	0	0	61	0	0	0	0	0	0	0	0	0	0	0	0	0
Navajo Army Depot	47	47	0	0	0	47	0	0	0	0	0	0	0	0	0	0	0	1	0
NG Buckeye	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Florence	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Papago Park Military Reservation	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0
USARC Douglas	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Phoenix	13	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Phoenix 02	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Tucson	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yuma Proving Ground	43	43	0	0	0	43	0	0	0	0	0	1	0	0	0	0	0	0	1
ARMY TOTALS	174	174	0	0	19	154	0	0	0	1	0	1	0	0	1	0	0	2	1

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
NAVY																			
MCAS Yuma	14	14	0	0	0	14	0	0	1	0	13	0	0	0	0	13	0	0	13
NAVY TOTALS	14	14	0	0	0	14	0	0	1	0	13	0	0	0	0	13	0	0	13
AIR FORCE																			
AFP No. 44, Tucson	14	14	0	0	0	14	0	0	0	0	14	0	0	0	14	0	0	14	0
AJO AFS	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Alcoa AGS	2	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Davis Monthan AFB	51	41	10	0	11	41	3	0	0	1	28	0	0	0	8	28	0	1	28
Luke AFB ●	31	31	0	0	13	24	0	0	0	2	12	0	0	3	3	4	3	1	6
Sky Harbor IAP (Phoenix ANG)	5	5	0	0	0	0	5	0	0	0	5	0	0	0	0	1	0	0	1
Tucson IAP (Arizona ANG)	13	13	0	0	0	5	8	0	0	0	13	0	0	0	0	8	0	0	8
Williams AFB ●	14	14	0	0	0	14	0	0	0	4	10	0	3	1	1	2	0	5	2
AIR FORCE TOTALS	131	118	12	1	24	98	16	1	0	7	82	0	3	4	26	43	3	22	45
ARIZONA TOTALS	319	306	12	1	43	266	16	1	1	8	95	1	3	4	27	56	3	24	59
ARKANSAS																			
ARMY																			
AFRC North Little Rock (Pike)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Chaffee	34	34	0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0
Pine Bluff Arsenal	66	66	0	0	0	58	0	0	0	31	0	0	0	29	0	0	23	0	0
USARC Arkadelphia	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Blytheville	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Camden	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Conway	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC El Dorado (02)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC El Dorado (Garrett)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD				RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F		C	U	F
USARC Fayetteville	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Fort Chaffee (1368)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Fort Chaffee (241)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Fort Chaffee (2465)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Fort Chaffee (ECS 15)	13	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Fort Chaffee (NCO Academy)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Fort Smith	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Harrison	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Hot Springs	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Jonesboro	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Little Rock (ASF 19)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Little Rock (Finkbeiner)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Little Rock (Terry)	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Monticello	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Nashville, AR	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Pine Bluff	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Russellville	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Texarkana 01	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC Texarkana 02	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0		0	0	0
USARC West Memphis	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0		0	0	0
ARMY TOTALS	217	217	0	0	117	92	0	0	0	31	0	0	0	29	0	0		23	0	0
AIR FORCE																				
Eaker AFB	13	12	1	0	0	12	1	0	1	0	12	0	0	0	0	8		0	0	8
Fort Smith MAP	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
Hot Springs Field	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0		0	0	0

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
Little Rock AFB	52	52	0	0	0	52	0	0	0	0	52	0	0	0	3	0	0	3	0
AIR FORCE TOTALS	68	64	4	0	0	64	1	1	1	0	64	0	0	0	3	8	0	3	8
ARKANSAS TOTALS	285	281	4	0	117	156	1	1	1	31	64	0	0	29	3	8	23	3	8
CALIFORNIA																			
ARMY																			
AFRC Concord	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Fresno	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Los Alamitos (ASF 28A)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Camp Roberts	38	38	0	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0
East Fort Baker	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Cronkite	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Hunter Liggett ♦	21	21	0	0	0	21	0	0	0	0	0	21	0	0	0	0	0	0	0
Fort Irwin ♦	36	36	0	0	0	36	0	0	0	0	0	16	0	0	0	0	0	0	0
Fort MacArthur	18	18	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Ord ♦ ●	156	166	0	0	0	166	0	0	0	0	0	12	0	0	4	0	0	4	0
H.F. Radio Receiver, Santa Rosa	3	3	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0
Hamilton Army Air Field	17	17	0	0	0	0	0	17	0	1	0	0	0	0	1	0	0	1	0
NG Camp Elliott	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Chines Camp	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Oakland Army Base	7	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0
Presidio of Monterey ♦	14	14	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0
Presidio of San Francisco ♦	35	35	0	0	0	35	0	0	0	0	0	31	0	0	0	0	0	0	0
Rio Vista RES Training Area	2	2	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0
Riverbank AAP ♦ ●	11	11	0	0	0	11	0	0	0	8	3	0	8	0	3	0	0	3	0
Sacramento AD ♦ ●	15	15	0	0	0	15	0	0	0	0	2	5	0	0	0	2	0	0	2

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
SAT COM	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Sharpe Army Depot ♦ ●	38	38	0	0	0	38	0	0	0	0	38	0	0	0	2	0	0	2	0
Sierra Army Depot ♦	35	35	0	0	0	22	0	0	14	0	6	14	0	0	0	0	0	1	0
Sloughouse	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bakersfield	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bell (AMSA 15)	22	22	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Camp Pendleton	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Chico	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Clovis	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC El Monte	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Ord (AMSA 14)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fresno (AMSA 14-G)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Long Beach	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Los Alamitos (ECS 16)	14	14	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Los Angeles 01	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Los Angeles 02	4	4	0	0	4	0	2	0	0	0	0	0	0	0	0	0	0	0	0
USARC Modesto	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Mountain View	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC NORCO	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Pasadena, CA	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC San Bernardino (AMSA 19G)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC San Diego	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC San Jose (AMSA 12)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC San Pablo	12	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Santa Ana	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Santa Barbara	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Santa Rosa	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Stanton (Garden Grove)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Sunnyvale	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Upland	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Vallejo	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Van Nuys	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Van Nuys Maintenance Shop	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	657	557	0	0	194	428	3	21	14	9	49	101	6	0	10	2	0	11	2
NAVY																			
CBC Port Hueneme ♦	22	22	0	0	0	11	11	0	11	0	0	11	0	0	0	10	1	0	10
DEFUELSUPCEN San Pedro	8	8	0	0	0	4	4	0	0	0	4	4	0	0	0	8	0	0	8
DoD Housing Facility, Novato	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FASOTRAGRUPACDET Warner Springs	1	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1
MCAGCC 29 Palms ♦	28	28	0	0	0	28	0	0	0	0	22	6	0	0	0	28	0	0	28
MCAS El Toro ♦	23	22	1	0	0	22	0	1	0	0	22	1	0	0	0	23	0	0	23
MCAS Tustin ♦	15	15	0	0	0	6	9	0	4	1	1	9	0	0	1	9	1	0	10
MCB Camp Pendleton ♦	17	17	0	0	0	17	0	0	0	0	17	0	0	0	0	17	1	0	17
MCLB Barstow ♦	37	37	0	0	0	37	0	0	0	0	37	0	0	0	0	37	0	2	37
MCMWTC Bridgeport ♦	9	9	0	0	0	9	0	0	0	0	9	0	0	0	0	9	1	0	9
MCRD San Diego ♦	2	2	0	0	0	0	2	0	0	0	0	2	0	0	0	2	0	0	2
NAF El Centro ♦	17	17	0	0	0	2	15	0	2	0	0	15	0	0	0	15	0	1	15
NALF Crows Landing ♦	5	5	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	1	0
NALF San Clemente Island ♦	15	15	0	0	0	7	8	0	7	0	0	8	0	0	0	8	0	0	8
NAS Alameda ♦	20	20	0	0	0	20	0	0	0	0	20	0	0	0	0	20	0	0	20
NAS Lemoore ♦	17	17	0	0	0	17	0	0	1	0	16	0	0	0	0	16	0	0	16
NAS Miramar ♦	13	10	0	3	0	10	0	3	4	0	6	3	0	0	0	9	1	0	9

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		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
NAS Moffett Field ♦ ●	21	21	0	0	0	0	21	0	0	0	0	21	0	0	0	14	0	6	14	
NAS Moffett Field Outlying Areas	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NAS North Island ♦	12	12	0	0	0	7	5	0	1	0	6	0	0	0	0	6	0	4	6	
NAVFAC Big Sur	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NAVFAC Centerville Beach ♦	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NAVHOSP Long Beach	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NAVMEDCOMNWREG Oakland	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NAVPETRES Tupman	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NAVPHIBASE Coronado ♦	5	5	0	0	0	0	5	0	0	0	0	5	0	0	0	5	0	0	5	
NCS Stockton ♦	7	7	0	0	0	7	0	0	1	0	6	0	0	0	0	6	0	1	7	
NIROP Pomona	3	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	
NIROP Sunnyvale ♦	16	16	0	0	0	16	0	0	3	8	5	0	0	0	0	10	0	0	10	
NOSC Morris Dam Facility Azusa	1	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1	
NOSC San Diego ♦	8	8	0	0	0	5	3	0	5	0	0	0	0	0	0	0	0	0	0	
NPGS Monterey ♦	2	2	0	0	0	0	2	0	0	0	0	2	0	0	0	2	0	0	3	
NRTF Dixon ♦	2	2	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	
NS Long Beach	6	6	0	0	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	
NS San Diego ♦	8	8	0	0	0	1	7	0	1	0	0	5	0	0	0	5	0	0	6	
NS T.I. Hunter's Point Annex ♦ ●	22	22	0	0	0	22	0	0	8	0	7	7	0	0	0	7	1	0	7	
NS Treasure Island ♦	26	26	0	0	0	22	4	0	3	0	19	0	0	0	0	19	0	0	19	
NSB San Diego ♦	4	4	0	0	0	1	3	0	1	0	0	0	0	0	0	0	0	1	0	
NSC Oakland ♦	8	8	0	0	0	7	1	0	4	0	0	4	0	0	0	4	0	0	4	
NSC Oakland, Alameda Annex ♦	2	2	0	0	0	2	0	0	1	0	1	0	0	0	0	1	0	0	1	
NSC Oakland, Fuel Depot, Richmond ♦	4	4	0	0	0	0	4	0	0	0	0	4	0	0	0	4	0	0	4	

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	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
NSC San Diego ♦	7	7	0	0	0	4	3	0	4	0	0	3	0	0	0	3	0	0	3	
NSGA Skaggs Island ♦	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NSY Long Beach ♦	6	6	0	0	0	0	6	0	0	0	0	6	0	0	0	0	1	0	0	
NSY Mare Island ♦	26	26	0	0	0	15	11	0	3	0	11	12	0	0	0	18	0	3	18	
NTC San Diego ♦	3	3	0	0	0	1	2	0	1	0	0	2	0	0	0	2	0	0	2	
NUWES SOCAL DET San Diego	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NWC China Lake ♦	45	45	0	0	0	45	0	0	28	0	17	0	0	0	0	16	0	1	16	
NWS Concord ♦	30	30	0	0	0	30	0	0	7	7	16	0	0	0	7	16	0	0	23	
NWS Seal Beach ♦	42	42	0	0	0	18	24	0	14	0	4	0	0	0	0	0	0	0	0	
NWS Seal Beach Corona DET	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
NWS Seal Beach Fallbrook Annex	10	10	0	0	0	4	6	0	4	0	0	0	0	0	0	0	0	0	0	
OLF Imperial Beach ♦	5	5	0	0	0	1	4	0	1	0	0	4	0	0	0	4	0	0	4	
PMTC Point Mugu ♦	18	18	0	0	0	9	9	0	9	0	0	9	0	0	0	9	0	0	9	
Salton Sea Test Range	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Singer Education Div., Imperial Beach	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WESTNAVFACENGCOM San Bruno	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NAVY TOTALS	611	605	3	3	10	414	181	4	133	16	246	153	0	0	8	364	8	20	375	
AIR FORCE																				
AFP No. 19, San Diego ♦	6	6	0	0	0	6	0	0	0	1	5	0	0	0	6	0	0	6	0	
AFP No. 42, Palmdale ♦	27	27	0	0	0	27	0	0	0	0	26	0	0	0	0	0	0	0	0	
AFP No. 70, Folsom ♦	12	1	11	0	0	1	11	0	0	0	0	2	0	1	0	0	1	0	0	
ANG - Mr. Marte	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Beale AFB ♦	32	31	1	0	0	31	1	0	0	12	18	2	5	0	3	6	0	3	6	
Castle AFB ♦ ●	39	37	2	0	0	36	1	0	0	1	36	1	0	0	6	11	0	5	11	

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
Site by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
Costa Mesa AGS	5	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Edwards	1	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
Edwards AFB ♦ ●	70	12	58	0	0	12	46	0	0	0	58	0	0	1	14	11	0	23	6
Fresno ANG	4	4	0	0	0	0	4	0	0	0	0	4	0	0	0	4	0	0	4
George AFB ♦ ●	69	67	2	0	0	67	0	0	0	30	17	0	0	1	17	7	1	16	8
Hayward MAP	5	4	1	0	0	4	0	1	0	0	5	0	0	0	0	0	0	0	0
Los Angeles AFS ♦	37	17	20	0	0	17	3	0	0	5	12	0	0	0	18	5	0	25	5
March AFB ♦ ●	41	31	6	4	0	31	5	4	0	0	17	23	0	0	3	16	0	2	16
Mather AFB ♦ ●	44	44	0	0	0	44	0	0	0	6	38	0	0	6	2	19	6	2	19
McClellan AFB ♦ ●	179	75	103	1	0	75	102	1	0	16	162	0	0	1	176	0	1	176	0
Mt. Disappointment	5	4	1	0	0	4	0	1	0	0	4	0	0	0	0	0	0	0	0
Mr. Martell RRS	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
North Highlands AGS	5	4	1	0	0	4	0	1	0	0	4	0	0	0	0	0	0	0	0
Norton AFB ♦ ●	38	24	14	0	6	19	4	0	1	1	22	0	0	0	26	1	0	26	1
Onizuka AFS ♦	5	5	0	0	0	5	0	0	5	0	4	1	0	0	0	0	0	0	0
Ontario IAP	6	5	0	1	0	5	0	1	0	0	5	0	0	0	0	0	0	0	0
San Diego AGS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SEPULVEDA AGS	5	4	1	0	0	4	0	1	0	0	4	0	0	0	0	0	0	0	0
Travis AFB ♦ ●	49	44	5	0	1	43	0	0	2	4	37	2	0	0	4	1	0	4	1
Vandenberg AFB ♦	49	47	2	0	0	19	0	0	0	23	11	0	22	0	1	7	0	1	8
AIR FORCE TOTALS	737	493	238	6	7	454	178	13	8	79	486	35	27	10	276	88	9	289	85
DEFENSE LOGISTICS AGENCY																			
DDTC Tracy ♦	29	29	0	0	0	29	0	0	14	0	15	0	0	0	0	15	0	0	15
DFSP Estero Bay	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	1
DFSP Norwalk	2	2	0	0	0	2	0	0	0	0	2	0	0	0	0	2	0	0	2
DFSP Ozol	2	2	0	0	0	2	0	0	0	1	1	0	0	1	1	0	1	1	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
DFSP San Pedro	2	2	0	0	0	2	0	0	0	1	1	0	0	0	0	2	0	0	2
DEFENSE LOGISTICS AGENCY TOTALS	36	36	0	0	0	36	0	0	14	2	20	0	0	1	1	20	1	1	20
CALIFORNIA TOTALS	2,041	1,791	241	9	211	1,332	362	38	169	106	801	289	35	11	295	474	18	321	482

COLORADO

ARMY

AFRC Boulder	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Fort Carson	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fitzsimmons Army Med Center	25	25	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Carson	48	48	0	0	0	48	0	0	0	0	22	0	0	0	0	0	0	0	0
Pueblo Depot Activity	35	35	0	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0
Rocky Mountain Arsenal ♦ ●	155	155	0	0	0	155	0	0	0	153	2	0	0	1	153	0	1	153	0
USARC Aurora 01	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Aurora 02	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Commerce City (AMSA 22)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Denver	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Carson (ECS 42)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Collins (AMSA 21G)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Pueblo	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	302	302	0	0	39	263	0	0	0	153	25	0	0	1	153	0	1	153	0

NAVY

NAVPETRES Anvil Points Facility	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NAVY TOTALS	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
AIR FORCE																			
AFP PJKS	33	33	0	0	0	33	0	0	0	11	21	0	0	0	16	16	0	16	16
Buckley ANG	13	13	0	0	0	12	0	0	0	1	11	0	0	0	1	7	0	1	7
Cheyenne Mountain	1	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0
Greely AGS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Lowry AFB	12	11	1	0	0	11	0	0	0	6	5	0	6	0	3	0	0	4	0
Peterson	10	9	1	0	0	9	0	0	4	8	1	0	5	0	0	0	0	1	0
Punkin Center AGS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
USAF Academy	11	11	0	0	2	11	0	0	3	1	10	0	1	0	0	0	0	0	0
AIR FORCE TOTALS	84	77	7	0	2	76	0	2	7	27	48	0	12	0	21	23	0	23	23
COLORADO TOTALS	387	380	7	0	42	339	0	2	7	180	73	0	12	1	174	23	1	176	23
CONNECTICUT																			
ARMY																			
Family Housing Manchester, CT 25	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Family Housing Milford, CT 17	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Family Housing New Britain, CT 57	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Family Housing Portland, CT 36	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Family Housing Shelton, CT 74	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Family Housing Westport, CT 73	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Stratford Army Engine Plant	9	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bridgeport	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Danbury	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC East Windsor	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fairfield	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Hartford	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

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Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1991

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
USARC Middleton	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Milford	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC New Haven	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Waterbury	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Windsor Locks (AMSA 72G)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARMY TOTALS	78	78	0	0	63	9	0	6	0	0	0	0	0	0	0	0	0	0	0	
NAVY																				
NSB New London	13	13	0	0	0	13	0	0	2	0	11	0	0	0	0	2	0	0	2	
NUSC East Lyme	1	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1	
NUSC New London	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NWIRP Bloomfield	6	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	
NAVY TOTALS	21	21	0	0	1	13	7	0	2	0	11	1	0	0	0	3	0	0	3	
AIR FORCE																				
Bradley ANG	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Orange AGS	2	2	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	
AIR FORCE TOTALS	3	2	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	
DEFENSE LOGISTICS AGENCY																				
DNSC Newhaven	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
DEFENSE LOGISTICS AGENCY TOTALS	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
CONNECTICUT TOTALS	103	102	1	0	64	24	7	6	2	0	12	1	0	0	0	3	0	0	3	
DELAWARE																				
ARMY																				
First Army Recreation Area	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State-by-State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
NG New Castle	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Nike Site, Rehoboth	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Dover	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lewes	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC New Castle	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Seaford	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wilmington, DE	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	24	24	0	0	21	2	0	1	0	0	0	0	0	0	0	0	0	0	0
NAVY																			
NAVRESFAC Lewes	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NAVY TOTALS	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIR FORCE																			
Dover AFB ♦ ●	112	112	0	0	0	112	0	0	1	0	111	1	0	0	2	13	0	3	13
Greater Wilmington APT (DE ANG) ♦	5	5	0	0	0	5	0	0	1	0	4	0	0	0	0	2	0	0	2
AIR FORCE TOTALS	117	117	0	0	0	117	0	0	2	0	115	1	0	0	2	15	0	3	15
DELAWARE TOTALS	142	142	0	0	22	119	0	1	2	0	115	1	0	0	2	15	0	3	15
DISTRICT OF COLUMBIA																			
ARMY																			
Camp Simms	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0
Fort McNair	7	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0
Walter Reed Army Medical Center	3	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	11	11	0	0	0	8	0	3	0	0	0	0	0	1	0	0	1	0	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
Status by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
NAVY																			
COMNAVDIST Washington	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
NAVSECSTA Washington	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
NRL Washington	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
NRL Washington, Pomonkey Test Range	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
NS Anacostia	3	3	0	0	0	2	1	0	2	0	0	1	0	0	0	0	0	0	0
NAVY TOTALS	7	7	0	0	2	3	2	0	3	0	0	1	0	0	0	0	0	1	1
AIR FORCE																			
Bolling AFB	4	4	0	0	0	4	0	0	0	0	4	0	0	0	0	3	0	0	3
AIR FORCE TOTALS	4	4	0	0	0	4	0	0	0	0	4	0	0	0	0	3	0	0	3
DISTRICT OF COLUMBIA TOTALS	22	22	0	0	2	15	2	3	3	0	4	1	0	1	0	3	1	1	4
FLORIDA																			
ARMY																			
AFRC Daytona Beach	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARRCOM Orlando Facility	2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Supply Facility, 49-A	3	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
Camp Blanding	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Coral Gables	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Lauderdale (NININGER)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Gainesville (1300)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Gainesville (Layton)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Hollywood (AFA 48A)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Jacksonville (Burpec)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Jacksonville (Milam)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Jacksonville (Phillips)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Kissimmee	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lakeland	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Melbourne	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Miami (AMSA 47G)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Milton	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Ocala	5	4	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Orlando (ASF 49)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Orlando (ECS McCoy Annex)	13	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Orlando (McCoy 03)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Orlando (Orange County)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Palatka	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Palatka (AMSA 55W)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Panama City	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Pensacola	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Perry	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Port Charlotte	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC St. Petersburg (AMSA 51M)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC St. Petersburg	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Taft	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Tallahassee	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Tampa	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC West Palm Beach (Babcock)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC West Palm Beach (Gun Club)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
West Palm Beach	2	2	0	0	0	2	0	0	0	2	0	0	0	2	0	0	2	0	0
ARMY TOTALS	141	140	1	0	133	5	0	3	0	2	0	0	0	2	0	0	2	0	0
NAVY																			
NAS Cecil Field ♦	19	19	0	0	0	0	19	0	0	0	0	19	0	0	0	14	0	0	14
NAS Jacksonville ♦	47	47	0	0	0	0	47	0	0	0	0	17	0	0	0	8	1	0	8
NAS Key West ♦	16	16	0	0	0	0	16	0	0	0	0	16	0	0	0	6	0	0	6
NAS Pensacola ♦	38	38	0	0	0	37	1	0	0	0	37	0	0	0	0	31	0	2	31
NAS Richmond	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NAS Whiting Field ♦	24	24	0	0	0	1	18	5	0	0	1	23	0	0	0	17	0	0	17
NCSC Panama City ♦	9	9	0	0	0	9	0	0	1	0	0	8	0	0	0	6	0	0	6
NRL UWS REF Det Orlando	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
NS Mayport ♦	16	16	0	0	0	16	0	0	6	0	10	0	0	0	0	10	0	0	10
NSGA Homestead	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSWC Det Ft. Lauderdale	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
NTC Orlando ♦	10	10	0	0	0	10	0	0	6	0	4	0	0	0	0	4	0	0	4
NTTC Pensacola	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
NUSC Ft. Lauderdale	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUSC West Palm Beach	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NAVY TOTALS	186	186	0	0	4	74	103	5	13	0	53	83	0	0	0	96	1	2	96
AIR FORCE																			
Cape Canaveral ♦	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
Eglin AFB ♦	40	39	1	0	0	39	0	0	0	20	17	0	0	1	8	21	1	9	21
Homestead AFB ♦	20	19	1	0	0	19	0	0	0	2	14	0	0	0	4	10	0	3	11
Hurlburt AFB	11	11	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0	0	0
Jacksonville ANG	8	8	0	0	0	0	8	0	0	0	0	8	0	0	0	8	0	0	8
MacDill AFB ♦	56	48	8	0	0	48	5	0	0	1	33	1	0	0	3	19	0	2	19

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	Total # of Sites	Number of Sites																	
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		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
Patrick AFB ♦ ●	35	34	1	0	0	34	0	0	0	7	25	0	0	0	4	25	0	4	25
Tyndall AFB ♦ ●	28	25	3	0	0	25	3	0	0	7	12	0	6	0	1	14	0	1	14
AIR FORCE TOTALS	200	184	16	0	0	176	16	0	0	37	112	9	6	1	22	97	1	19	98
DEFENSE LOGISTICS AGENCY																			
DFSP Lynn Haven	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
DFSP Tampa	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
DEFENSE LOGISTICS AGENCY TOTALS	2	2	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0
FLORIDA TOTALS	529	512	17	0	137	257	119	8	15	39	165	92	6	3	22	193	4	21	194
GEORGIA																			
ARMY																			
AFRC Waycross	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Benning ♦	87	87	0	0	0	87	0	0	0	0	2	0	0	0	0	1	0	0	1
Fort Gillem ♦	5	5	0	0	0	1	0	4	0	1	0	0	0	0	0	0	0	0	0
Fort Gordon ♦	78	78	0	0	0	78	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort McPherson ♦	9	9	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0
Fort Stewart ♦	85	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hunter Army Airfield	10	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0
Hunter ILS Middle Marker	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
USARC Athens	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Augusta 02	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Carrollton	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Chamblee	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Columbus (Macon Road)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Columbus (Midtown Dr.)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Dobbins AFB	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Dublin	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC East Point Atlanta	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Forest Park	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Valley	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Gainesville	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Macon	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Rome	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Savannah	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Tifton	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	361	361	0	0	86	176	0	14	0	1	2	0	0	0	0	1	0	0	1
NAVY																			
MCLB Albany ♦	13	13	0	0	0	13	0	0	0	1	9	3	0	0	1	12	0	0	13
NSB Kings Bay ♦	16	16	0	0	0	16	0	0	16	0	0	4	0	0	0	0	0	0	0
NAVY TOTALS	29	29	0	0	0	29	0	0	16	1	9	7	0	0	1	12	0	0	13
AIR FORCE																			
AFP No. 6 Marietta ♦	15	14	1	0	0	14	1	0	0	1	0	0	0	0	0	0	0	0	0
Dobbins AFB ♦	7	7	0	0	0	6	0	1	0	1	5	0	0	0	0	4	0	0	4
Hunter 2	2	0	2	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0
L.B. Wilson AD	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
McCollon AGS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
McKinnon AGS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Moody AFB ♦	20	19	1	0	0	19	1	0	0	2	14	0	0	0	3	12	0	3	12
Robins AFB ♦ ●	23	20	3	0	0	20	0	0	0	3	17	0	0	0	18	1	0	17	1
Savannah FTS ANG ♦	4	4	0	0	0	0	4	0	0	0	2	2	0	0	0	4	0	0	4

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
Savannah IAP ANG	7	7	0	0	0	0	7	0	0	0	5	2	0	0	0	7	0	0	7
AIR FORCE TOTALS	84	71	13	0	0	59	13	5	0	7	43	4	0	0	21	28	0	20	28
GEORGIA TOTALS	474	461	13	0	86	264	13	19	16	9	54	11	0	0	22	41	0	20	42
GUAM																			
NAVY																			
NAS Agana	2	2	0	0	0	0	2	0	0	0	0	2	0	0	0	2	0	0	2
NAVCAMS WESTPAC Guam	11	11	0	0	0	7	4	0	7	0	0	4	0	0	0	4	0	0	4
NAVMAG Guam	5	5	0	0	0	3	2	0	3	0	0	2	0	0	0	1	0	0	1
NAVREGDENCEN Guam	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	1	1
NAVSHIPREPFAC Guam	5	5	0	0	0	3	2	0	3	0	0	2	0	0	0	2	0	0	2
NS Guam	17	17	0	0	0	12	5	0	12	0	0	5	0	0	0	3	0	0	3
NSD Guam	4	4	0	0	0	2	2	0	2	0	0	2	0	0	0	2	0	0	2
PWC Guam	3	3	0	0	0	0	2	1	0	0	0	3	0	0	0	3	1	0	3
NAVY TOTALS	48	48	0	0	0	28	19	1	27	0	0	21	0	0	0	18	1	1	18
AIR FORCE																			
Andersen AFB	57	52	5	0	0	49	4	0	16	1	32	4	0	0	2	7	0	2	8
AIR FORCE TOTALS	57	52	5	0	0	49	4	0	16	1	32	4	0	0	2	7	0	2	8
GUAM TOTALS	105	100	5	0	0	77	23	1	43	1	32	25	0	0	2	25	1	3	26
HAWAII																			
ARMY																			
Diamond Head Crater	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Kamehameha	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Shafter	5	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
Kapalama Mil Reservation	4	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
Kilauea Military Reservation	5	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
Kipapa Army Ammo Storage	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Makua Military Reservation	4	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
Nike Site 3 and 4	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Pohakuloa Training Area	7	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0
Schofield Barracks	19	19	0	0	0	0	18	0	0	0	0	18	0	0	0	0	0	1	0
Tripler Army Medical Center	4	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
Waiawa Gulch Storage Area	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	51	51	0	0	0	33	18	0	0	0	0	18	0	0	0	0	0	1	0
NAVY																			
Camp H.M. Smith, Oahu	2	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0
DRMO Hawaii	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DRMO Pearl City Junction	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FLTRNGGRA Pearl Harbor	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INACTSHIPDET Pearl Harbor	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
MCAS Kaneohe Bay	20	20	0	0	0	18	2	0	17	0	0	3	0	0	0	3	0	0	3
NAS Barbers Point	10	9	1	0	0	8	1	0	8	0	0	1	0	0	0	1	0	0	1
NAVCAMS EASTPAC	14	14	0	0	0	10	4	0	10	0	0	4	0	0	0	4	0	1	4
NAVENPVNTMEDU No. 6 Pearl Harbor	2	2	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0
NAVMAG Lualualei	7	6	1	0	0	3	3	0	3	0	0	3	0	0	0	3	0	0	3
NS Pearl Harbor	5	4	1	0	0	2	2	0	2	0	0	2	0	0	0	1	0	1	1
NSB Pearl Harbor	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSC Pearl Harbor	10	10	0	0	0	6	4	0	5	0	1	4	0	0	0	4	0	1	4
NSY Pearl Harbor	15	14	1	0	0	9	5	0	8	1	0	5	0	1	0	3	1	0	3
Pearl Harbor Service Station	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PMRF Barking Sands	3	3	0	0	0	0	3	0	0	0	0	3	0	0	0	3	0	0	3

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		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
PWC Pearl Harbor	3	3	0	0	0	1	2	0	1	0	0	2	0	0	0	2	0	0	2
Waiawa Shaft Pearl City	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waikane Valley Impact Area Kaneohe	1	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
NAVY TOTALS	100	93	7	0	6	59	28	1	56	1	1	29	0	1	0	24	1	3	24
AIR FORCE																			
Bellows AFB	3	3	0	0	0	3	0	0	0	0	2	0	0	0	0	1	0	0	1
General Lyman	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Hickam AFB	17	13	4	0	0	13	0	0	0	2	1	0	0	0	2	1	0	2	1
Hickam POL	12	12	0	0	0	12	0	0	0	0	12	0	0	0	0	12	0	1	11
Hilo COMM AGS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
HQ PACAF (Hickam)	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Johnston Island	5	1	4	0	0	1	2	0	0	0	1	2	0	0	0	2	0	3	2
Kaala AFS	8	8	0	0	0	8	0	0	0	3	0	0	0	0	0	3	0	0	3
Kaena Pt Station	3	1	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Kahalui AGS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Kokee AFS	2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Maui AFS	13	13	0	0	0	13	0	0	0	0	13	0	0	0	0	0	0	0	0
Palehua Solar Obs	2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Punamano AFS	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Wheeler AFB	8	8	0	0	0	8	0	0	0	0	5	0	0	0	0	4	0	0	4
AIR FORCE TOTALS	81	64	17	0	0	64	2	3	0	5	34	2	0	0	2	23	0	6	22
HAWAII TOTALS	235	211	24	0	6	156	48	4	56	6	35	49	0	1	2	47	1	10	46

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		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
IDAHO																				
ARMY																				
AFRC Idaho Falls	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Broken Kettle Training Area	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG ARCO AEC Site	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Bonneville	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Buhl	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Gooding	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Hailey	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Idaho Falls	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Kelly Canyon	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Kirnana	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Orchard Range	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Saint Anthony	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Twin Falls City	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Boise (AMSA 3)	12	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Coeur D'Alene	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Rexburg	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Twin Falls	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARMY TOTALS	**50**	**50**	**0**	**0**	**38**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	
AIR FORCE																				
Boise ANG	3	2	1	0	0	2	1	0	0	0	3	0	0	0	2	0	0	0	0	
Gowen Field, Boise ANG	13	13	0	0	0	6	0	0	0	0	4	0	0	2	3	1	2	3	1	
Mountain Home AFB	22	20	2	0	4	16	0	0	0	0	16	0	0	0	1	3	0	3	3	
AIR FORCE TOTALS	**38**	**35**	**3**	**0**	**4**	**24**	**1**	**0**	**0**	**0**	**23**	**0**	**0**	**2**	**6**	**4**	**2**	**6**	**4**	
IDAHO TOTALS	**88**	**85**	**3**	**0**	**42**	**36**	**1**	**0**	**0**	**0**	**23**	**0**	**0**	**2**	**6**	**4**	**2**	**6**	**4**	

(Continued)

Table C-2
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	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
ILLINOIS																				
ARMY																				
AFRC Joliet (McDonough)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AFRC Waukegan	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Fort Sheridan ♦	10	10	0	0	0	7	0	3	0	1	0	0	0	1	0	0	1	0	0	
Joliet AAP ♦ ●	42	42	0	0	0	42	0	0	0	0	42	0	0	3	0	0	3	0	0	
Maintenance Center, N. Riverside	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG O'Hare IAP	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG USA Training Area Joliet	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Rock Island Arsenal ♦	31	31	0	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	
Savanna Army Depot Activity ♦ ●	72	72	0	0	10	60	0	0	32	0	26	0	0	0	0	0	0	2	0	
St. Louis Area Support Center ♦	46	40	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Arlington Heights	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Aurora	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Aurora (Howell Pl)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Aurora (Sullivan Rd)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Bellevilie	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Bloomington	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Canton, IL	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Centralia	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Chicago (Bryn Mawr Ave.)	8	8	0	0	8	0	1	0	0	0	1	0	0	0	1	0	0	1	0	
USARC Chicago (Gibson)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Chicago (Kedzie Ave.)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Chicago (O'Hare Field)	13	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

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	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
USARC Chicago (Pulaski)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Danville	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Decatur	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC East St. Louis	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Fairfield, IL	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Fort Sheridan (82)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Fort Sheridan (AMSA 47)	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Fort Sheridan (N. Shore)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Galesburg	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Glenview (ASF 26)	16	16	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Harvey	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Homewood	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Joliet (Railroad)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Kankakee	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Marion, IL	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Maywood (AMSA 46)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Orland Park (AMSA 45)	21	21	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Peoria (AMSA 48)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Peoria (Normoor)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Peru (Veterans Memorial)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Quincy	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Rockford (15th Ave.)	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Rockford (Arthur Avenue)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Rockford (First)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Scott AFB (ASF 44)	24	24	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Springfield, IL	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Urbana	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wood River	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	**465**	**465**	**0**	**0**	**277**	**183**	**1**	**3**	**32**	**1**	**69**	**0**	**0**	**4**	**1**	**0**	**4**	**3**	**0**
NAVY																			
Libertyville Nike Site	4	4	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0
NAS Glenview ♦	9	9	0	0	0	0	9	0	0	0	0	9	0	0	0	9	0	0	9
NTC Great Lakes ♦	14	14	0	0	0	14	0	0	7	0	7	0	0	0	0	6	0	0	9
NAVY TOTALS	**27**	**27**	**0**	**0**	**0**	**18**	**9**	**0**	**11**	**0**	**7**	**9**	**0**	**0**	**0**	**15**	**0**	**0**	**18**
AIR FORCE																			
Capital ANG ♦	2	0	2	0	0	0	0	2	0	0	2	0	0	0	0	2	0	0	2
Chanute AFB ♦	22	22	0	0	1	22	0	0	1	0	22	0	0	0	7	0	2	2	5
Greater Peoria ANG ♦	6	0	6	0	0	0	2	0	0	0	6	0	0	2	0	2	2	0	2
O'Hare Air Reserve ♦	13	12	1	0	0	11	1	0	0	9	3	0	6	0	2	1	0	3	1
O'Hare RTC	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Scott AFB ♦	9	9	0	0	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0
Springfield-Beckley Municipal AP	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIR FORCE TOTALS	59	49	9	1	1	42	3	3	1	9	42	0	6	2	9	5	4	5	10
ILLINOIS TOTALS	551	541	9	1	278	243	13	6	44	10	118	9	6	6	10	20	8	8	28
INDIANA																			
ARMY																			
AFRC Bloomington	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Evansville	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crane Army Ammunition Activity	76	76	0	0	0	76	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
Fort Benjamin Harrison	15	15	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0
Indiana AAP	25	25	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0
Jefferson Proving Ground	37	37	0	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0
Newport Army Ammunition Plant	12	12	0	0	1	0	4	0	0	0	6	1	0	0	0	1	0	0	1
NG AFRTA	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Edinburg	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Ft. Benjamin Harrison (McGee)	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Ft. Wayne (Gillespie)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Gary	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Indianapolis	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Jeffersonville	18	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lafayette	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lake Station	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC North Judson	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Peru (Grissom AFB)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Richmond	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Rushville	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Scottsburg	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC South Bend (AMSA 39)	12	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Terre Haute	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	290	290	0	0	125	153	4	0	0	0	6	1	0	0	0	1	0	0	1
NAVY																			
NAC Indianapolis	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NMCRC Gary	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NWSC Crane	30	30	0	0	0	0	30	0	0	0	0	21	0	0	0	21	0	0	21
NAVY TOTALS	32	32	0	0	2	0	30	0	0	0	0	21	0	0	0	21	0	1	21

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
AIR FORCE																			
Fort Wayne ANG	4	4	0	0	0	1	2	0	0	0	1	2	0	0	0	3	0	0	3
[illegible] AFB	11	[illegible]				[illegible]	1			0	[illegible]	0	0	0	0	3	0	0	2
[illegible] ANG	[illegible]					[illegible]						6	0	0	0	6	0	0	6
AIR FORCE TOTALS	21	20	1	0	0	12	8	0	1	0	11	8	0	0	0	12	0	[illegible]	11
INDIANA TOTALS	345	342	1	0	127	165	42	0	1	0	17	30	0	0	0	34	0	1	33
IOWA																			
ARMY																			
AFRC Dubuque	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Waterloo	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Des Moines	9	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0
Iowa Army Ammunition Plant ●	43	43	0	0	0	43	0	0	0	0	43	0	0	2	1	0	2	1	0
USARC Ames	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Cedar Rapids	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	0	0	0	0	0	0	0	0	0	0	0
USARC Creston	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Davenport	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC [illegible]	7	7	[illegible]	[illegible]	7	0	[illegible]	[illegible]	[illegible]	0	0	0	0	0	0	0	0	0	0
USARC Des Moines (ASF)	2	2	[illegible]	[illegible]	2	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
USARC Des Moines (ASF)	7	7	[illegible]	[illegible]	7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
USARC Des Moines [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
USARC Fort Dodge	2	2	[illegible]	[illegible]	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
USARC Garner	6	6	0	0	6	0	0	0	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]

(Continued)

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	Total # of Sites	Number of Sites																	
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		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Iowa City	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Middletown	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Mt. Pleasant	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Muscatine	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Ottumwa	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Pocahontas	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Sac City	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Sioux City	13	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Washington (AMSA 30)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Washington, IA	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	**178**	**178**	**0**	**0**	**126**	**52**	**0**	**0**	**0**	**0**	**43**	**0**	**0**	**2**	**1**	**0**	**2**	**1**	**0**
AIR FORCE																			
Des Moines ANG	4	4	0	0	0	4	0	0	0	0	4	0	0	0	0	4	0	0	4
Sioux City ANG	2	2	0	0	0	0	2	0	0	0	0	2	0	0	0	2	0	0	2
AIR FORCE TOTALS	**6**	**6**	**0**	**0**	**0**	**4**	**2**	**0**	**0**	**0**	**4**	**2**	**0**	**0**	**0**	**6**	**0**	**0**	**6**
IOWA TOTALS	**184**	**184**	**0**	**0**	**126**	**56**	**2**	**0**	**0**	**0**	**47**	**2**	**0**	**2**	**1**	**6**	**2**	**1**	**6**
KANSAS																			
ARMY																			
AFRC Hutchinson	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Topeka Municipal	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Leavenworth	56	56	0	0	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Riley •	31	31	0	0	0	31	0	0	0	0	0	31	0	0	0	0	4	0	0
Kansas AAP	38	38	0	0	0	36	0	2	0	0	0	25	0	0	0	0	0	0	0
NG Smokey Hill	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Sunflower AAP	31	31	0	0	0	31	0	0	0	0	11	0	0	0	0	0	0	0	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
USARC Arkansas City	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Baxter Springs	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Dodge City	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC El Dorado	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Emporia	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Fort Riley (ECS 33)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Ft. Leavenworth	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Ft. Riley (1695)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Ft. Riley (1968)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Garden City	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Great Bend	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Hays	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Independence	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Kansas City	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Lawrence	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Lenexa	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Manhattan	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Norton	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Olathe (ASF 37)	12	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Osage City	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Osawatomie	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Parsons	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Pittsburg	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Salina	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Scott City	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Sunflower Outdoor TRNG	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Topeka (AMSA 39)	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Wellington	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wichita (Wallace)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wichita 02	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	**279**	**279**	**0**	**0**	**122**	**155**	**0**	**2**	**0**	**0**	**11**	**56**	**0**	**0**	**0**	**0**	**4**	**0**	**0**
AIR FORCE																			
Forbes Field	11	11	0	0	0	7	0	0	0	7	0	0	7	0	0	5	0	0	5
McConnell AFB	29	24	5	0	0	24	4	0	0	0	24	4	0	0	0	8	0	1	8
AIR FORCE TOTALS	**40**	**35**	**5**	**0**	**0**	**31**	**4**	**0**	**0**	**7**	**24**	**4**	**7**	**0**	**0**	**13**	**0**	**1**	**13**
DEFENSE LOGISTICS AGENCY																			
DIPEF Atchison	3	3	0	0	0	3	0	0	2	1	0	0	0	0	1	0	0	1	0
DEFENSE LOGISTICS AGENCY TOTALS	**3**	**3**	**0**	**0**	**0**	**3**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**
KANSAS TOTALS	**322**	**317**	**5**	**0**	**122**	**189**	**4**	**2**	**2**	**8**	**35**	**60**	**7**	**0**	**1**	**13**	**4**	**2**	**13**

KENTUCKY

ARMY																			
AFRC Hopkinsville	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Lexington	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Blue Grass Activity-Lead	53	53	0	0	0	0	0	53	0	0	0	0	0	0	0	0	0	0	0
Fort Campbell	35	35	0	0	0	32	0	3	0	0	1	3	0	0	1	3	0	0	4
Fort Knox	199	199	0	0	0	199	0	0	0	0	0	0	0	0	0	0	0	0	0
Lexington Activity-LBAD	45	45	0	0	0	21	0	24	0	0	0	0	0	0	0	0	0	0	0
NG Greenville	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Somerset	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bardstown	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Beattyville	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Berea	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Bowling Green	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Knox (ECS #3)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Georgetown	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Hardinsburg	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lebanon	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lexington (Barrow)	12	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lexington (Blue Grass)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Louisville	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Louisville (Bowman Hanger 7)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Louisville (Century)	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Louisville (Major)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Madisonville	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Maysville	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Owensboro	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Paducah 01	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Paducah 02	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Pikeville	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	419	419	0	0	85	254	0	80	0	0	1	3	0	0	1	3	0	0	4
NAVY																			
NOS Louisville	5	5	0	0	0	3	2	0	3	0	0	2	0	0	0	1	0	0	1
NAVY TOTALS	5	5	0	0	0	3	2	0	3	0	0	2	0	0	0	1	0	0	1
AIR FORCE																			
Standiford Field	1	0	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1
AIR FORCE TOTALS	1	0	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1
KENTUCKY TOTALS	425	424	1	0	85	257	3	80	3	0	1	6	0	0	1	5	0	0	6

(Continued)

Table C-2

Status of Defense Environmental Restoration Program
Base/Site Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
ARMY																				
Fort Polk	22	22	0	0	8	12	0	0	5	0	4	3	0	0	0	1	0	0	1	
Louisiana AAP •	7	7	0	0	0	7	0	0	0	0	7	0	0	1	0	6	1	0	6	
New Orleans Army Base	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
Pearson Ridge	4	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Alexandria	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Baton Rouge (North)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Baton Rouge (Roberts)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Baton Rouge (Saurage)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Baton Rouge 02	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Bogalusa	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Bossier City	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Ft. Polk (8610)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Ft. Polk (ECS 17)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Hammond	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Houma	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Lafayette	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Lake Charles	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Monroe	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC New Orleans (Canal Street)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC New Orleans (Diamond)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC New Orleans (Fleming)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC New Orleans 05 (Kenner)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Shreveport 02	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Slidell	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	**107**	**107**	**0**	**0**	**81**	**23**	**0**	**1**	**5**	**0**	**11**	**3**	**0**	**1**	**0**	**7**	**1**	**0**	**7**
NAVY																			
NAS New Orleans	12	12	0	0	0	12	0	0	4	0	8	0	0	0	0	5	0	0	5
NSA New Orleans	2	2	0	0	0	2	0	0	0	0	2	0	0	0	0	1	0	0	1
NAVY TOTALS	**14**	**14**	**0**	**0**	**0**	**14**	**0**	**0**	**4**	**0**	**10**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**6**
AIR FORCE																			
Barksdale AFB	32	29	3	0	0	29	3	0	0	8	22	2	7	0	0	12	0	0	12
England AFB	43	40	3	0	31	20	4	0	0	2	10	0	0	0	2	6	0	3	6
Hammond AGS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Jackson Barracks	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
AIR FORCE TOTALS	**79**	**69**	**10**	**0**	**31**	**49**	**7**	**2**	**0**	**10**	**32**	**2**	**7**	**0**	**2**	**18**	**0**	**3**	**18**
DEFENSE LOGISTICS AGENCY																			
DNSC Baton Rouge	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
DEFENSE LOGISTICS AGENCY TOTALS	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LOUISIANA TOTALS	**201**	**191**	**10**	**0**	**112**	**87**	**7**	**3**	**9**	**10**	**53**	**5**	**7**	**1**	**2**	**31**	**1**	**3**	**31**
MAINE																			
ARMY																			
Bangor IAP	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Caswell	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Riley-Bog Brook	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Auburn	14	14	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bangor	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bridgton	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Dexter	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Saco	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	36	36	0	0	33	3	0	0	0	0	0	0	0	0	0	0	0	0	0
NAVY																			
NAS Brunswick ●	12	12	0	0	0	12	0	0	1	0	11	0	0	0	0	11	0	0	11
NAVCOMMU Cutler	2	2	0	0	0	0	2	0	0	0	0	2	0	0	0	2	0	0	2
NSGA Corea	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSGA Winter Harbor	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSY Portsmouth	14	14	0	0	0	14	0	0	0	0	14	0	0	0	0	2	0	0	2
NAVY TOTALS	30	30	0	0	2	26	2	0	1	0	25	2	0	0	0	15	0	0	15
AIR FORCE																			
Bangor ANG	2	2	0	0	0	0	2	0	0	0	2	0	0	0	0	2	0	0	2
Loring AFB	42	26	6	10	0	19	3	10	0	0	18	11	0	0	4	14	0	7	14
South Portland	5	4	1	0	0	4	0	1	0	0	4	0	0	0	0	0	0	0	0
AIR FORCE TOTALS	49	32	7	10	0	23	5	11	0	0	24	11	0	0	4	16	0	7	16
DEFENSE LOGISTICS AGENCY																			
DFSP Casco Bay	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	1
DFSP Searsport	2	2	0	0	0	2	0	0	0	1	0	1	0	1	0	1	1	0	1
DEFENSE LOGISTICS AGENCY TOTALS	3	3	0	0	0	3	0	0	0	1	1	1	0	1	0	2	1	0	2
MAINE TOTALS	118	101	7	10	35	55	7	11	1	1	50	14	0	1	4	33	1	7	33

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total	Number of Sites																	
		PA				SI				INIT				RD			RA		
	Sites	C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
MARYLAND																			
ARMY																			
Aberdeen Proving Ground ●	58	58	0	0	0	58	0	0	0	0	1	56	0	0	0	1	0	0	1
Aberdeen PV GRD (Edgewood Area) ●	8	8	0	0	0	8	0	0	0	0	6	2	0	0	2	4	0	2	4
Blossom Point Field Test Activity	26	26	0	0	0	26	0	0	0	0	5	0	0	0	0	0	0	0	0
Fort Detrick	45	45	0	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort George G. Meade	72	72	0	0	0	72	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Ritchie	5	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
Gaithersburg Res Facility	16	16	0	0	0	11	0	5	0	0	0	0	0	0	0	0	0	0	0
Harry Diamond Labs (Adelphi)	39	39	0	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Lauderick Creek Training Area	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Nike Site, Phoenix	1	1	0	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0
NG Nike Site, Wayland	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Nike Site 79, Foster	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Phoenix Mil. Res.	4	4	0	0	0	0	0	0	0	4	0	0	0	2	2	0	2	2	0
USARC Annapolis	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Baltimore (Jeceln)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Baltimore (Sheridan)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Baltimore (Turner)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Camp Springs	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Cumberland	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Curtis Bay (AMSA 83)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Curtis Bay (Brandt)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Frederick (Flair)	7	7	1	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Gaithersburg	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

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Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
USARC Greenspring	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Hagerstown	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Hagerstown (ASF 111)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Hagerstown (Tagg-Zirkle)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Riverdale	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Rockville	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Westminster	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARMY TOTALS	364	358	1	5	87	252	0	10	26	4	13	58	0	3	4	5	3	4	5	
NAVY																				
Bloodsworth Archipelago	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
DTRESCEN Annapolis	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
DTRESCEN Annapolis Bay Head Annex	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
DTRESCEN Bethesda	8	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	1	
NAF Washington	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NAS Patuxent River	31	31	0	0	0	31	0	0	19	0	12	0	2	0	0	10	1	2	10	
NAVCOMMU Cheltenham	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
NAVEODTECHCEN Indian Head	9	9	0	0	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	
NAVMEDCOM NATCAPREG Bethesda	6	6	0	0	0	2	4	0	2	0	0	4	0	0	0	4	0	0	4	
NAVRECCEN Solomons	2	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
NAVSUPPFAC Thurmont	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NESEA St. Inigoes	2	2	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	
NOS Indian Head	29	29	0	0	0	5	0	24	24	1	4	0	4	0	0	1	0	0	1	
NRL Chesapeake Bay Detachment	8	8	0	0	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	
NRL Waldorf	1	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1	

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
NS Annapolis	1	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1
NSWC White Oak	14	14	0	0	0	14	0	0	7	0	7	0	0	0	0	7	0	0	7
NTC Bainbridge	2	2	0	0	0	2	0	0	0	0	2	0	0	0	0	2	0	0	2
NTIC Suitland	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
U.S. Naval Academy	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
NAVY TOTALS	121	113	8	0	5	75	7	34	73	1	25	6	6	0	0	26	1	2	27
AIR FORCE																			
Andrews AFB	31	31	0	0	0	31	0	0	0	1	30	0	0	0	14	2	1	13	2
HQ, AFSC, Andrews	8	8	0	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0
Martin Airport ANG	15	15	0	0	0	0	11	0	0	0	0	11	0	0	0	11	0	0	11
AIR FORCE TOTALS	54	54	0	0	0	39	11	0	0	1	38	11	0	0	14	13	1	13	13
DEFENSE LOGISTICS AGENCY																			
DNSC Curtis Bay	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
DEFENSE LOGISTICS AGENCY TOTALS	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
MARYLAND TOTALS	540	526	9	5	92	367	18	44	99	6	76	75	6	3	18	44	5	19	45
[illegible]																			
ARMY																			
AFRC Chicopee	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auburn	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Family Housing Hull, MA 36	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Family Housing Nahant, MA 17	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Fort Devens	56	56	0	0	4	2	6	44	0	0	2	41	0	0	0	43	0	0	43
Fort Devens/Sudbury Annex	12	12	0	0	0	11	0	0	0	0	0	11	0	0	0	0	1	0	0
Natick R&D & ENGR Center	8	6	0	2	0	0	3	5	0	0	0	8	0	0	0	0	0	0	0

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
NG Camp Edwards	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
US Army Materials Technology Labs	19	19	0	0	0	19	0	0	0	0	19	0	0	0	0	0	0	0	0
USARC Attleboro	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Brockton (AMSA 66)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Pittsfield	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Roslindale	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Taunton	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Worcester	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	154	152	0	2	59	34	9	51	0	1	21	60	0	0	0	43	1	0	43
NAVY																			
NAS South Weymouth	8	8	0	0	0	0	8	0	0	0	0	8	0	0	0	8	0	0	8
NIROP Pittsfield	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSY Boston	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NWIRP Bedford	3	3	0	0	0	2	1	0	0	0	2	1	0	0	0	3	0	0	3
NAVY TOTALS	13	13	0	0	2	2	9	0	0	0	2	9	0	0	0	11	0	0	11
AIR FORCE																			
AFP No. 28, Everett	4	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
AFP No. 29, Lynn	3	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Barnes ANG	7	7	0	0	0	0	7	0	0	0	6	1	0	0	0	7	0	0	7
Cape Cod AFS	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Hanscomb AFB	20	13	7	0	0	13	3	0	0	6	8	0	0	0	10	2	0	16	2
Otis ANG	78	78	0	0	0	41	20	0	0	0	35	22	0	0	0	43	0	0	43
Wellesly AGS	5	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Westover AFB	16	16	0	0	0	16	0	0	0	9	7	0	8	0	1	5	0	3	3

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
Worcester AGS	6	5	0	1	0	5	0	1	0	0	5	0	0	0	0	0	0	0	0
AIR FORCE TOTALS	**140**	**126**	**13**	**1**	**0**	**82**	**30**	**2**	**0**	**15**	**61**	**23**	**8**	**0**	**11**	**57**	**0**	**20**	**55**
MASSACHUSETTS TOTALS	**307**	**291**	**13**	**3**	**61**	**118**	**48**	**53**	**0**	**16**	**84**	**92**	**8**	**0**	**11**	**111**	**1**	**20**	**109**
MICHIGAN																			
ARMY																			
AFRC Saginaw	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Custer RFTA	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Arsenal	15	15	0	0	0	15	0	0	13	0	0	0	0	0	0	0	0	0	0
Keweenaw Field Station	5	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
Lima Army Tank Center	16	16	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Camp Grayling Airfield	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0
NG Fort Custer Recreation Area	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Nike Site 58	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Pontiac Storage Activity	7	7	0	0	0	7	0	0	0	0	0	7	0	0	0	0	0	0	0
Tank-Automotive Command Activity	10	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Ann Arbor	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bad Axe	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Battle Creek (AMSA 42)	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bay City	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Detroit	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Flint	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fraser	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Grand Rapids	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Inkster	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Jackson	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Kalamazoo	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lansing (AMSA 40, SUB1)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Livonia (AMSA 40)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Muskegon (AMSA 43)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Muksegon (Parslow)	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Pontiac (Featherstone)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Romulus	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Southfield	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Traverse City (AMSA 34)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	158	158	0	0	101	57	0	0	1	1	0	7	0	0	1	0	0	1	0
AIR FORCE																			
Arkabulta Annex	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
K.I. Sawyer	17	15	1	1	0	15	0	1	0	0	13	1	0	0	2	3	0	1	5
Phelps Collins ANG	19	19	0	0	0	2	8	0	0	0	10	0	0	0	0	8	0	0	8
Selfridge ANG	11	11	0	0	0	9	0	0	0	0	9	0	0	0	0	8	0	0	8
W.K. Kellog Regional Airport	6	6	0	0	0	6	0	0	0	0	6	0	0	0	0	6	0	0	6
Wurtsmith AFB	20	19	1	0	0	19	0	0	0	5	9	2	4	3	11	1	3	11	1
AIR FORCE TOTALS	75	70	4	1	0	51	8	2	0	5	47	3	4	3	13	26	3	12	28
DEFENSE LOGISTICS AGENCY																			
DFSP Escanaba	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	1
DEFENSE LOGISTICS AGENCY TOTALS	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	1
MICHIGAN TOTALS	234	229	4	1	101	109	8	2	13	6	48	10	4	3	14	27	3	13	29

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		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
MINNESOTA																			
ARMY																			
AFRC Rochester	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC St. Cloud	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Twin Cities AAP ●	19	19	0	0	0	18	0	1	0	0	19	0	0	1	13	0	2	13	0
USARC Brainerd	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Buffalo	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Cambridge	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Cannon Falls	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Duluth	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Faribault (Beebe)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fergus Falls	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Snelling (AMSA 22)	35	35	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Le Sueur	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Mankato	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Marshall	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC New Prague	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Paynesville	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC So. International Falls	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC St. Joseph (AMSA 23)	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wabasha	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Walker	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Willmar	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Winona	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Winthrop	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Worthington	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	**178**	**178**	**0**	**0**	**159**	**18**	**0**	**1**	**0**	**0**	**19**	**0**	**0**	**1**	**13**	**0**	**2**	**13**	**0**
NAVY																			
ASTROGRPDET Bravo	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NIROP Minneapolis	5	5	0	0	0	5	0	0	0	5	0	0	1	0	4	0	0	2	4
NIROP St. Paul	2	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
NAVY TOTALS	**8**	**8**	**0**	**0**	**1**	**5**	**0**	**2**	**0**	**5**	**0**	**0**	**1**	**0**	**4**	**0**	**0**	**2**	**4**
AIR FORCE																			
Duluth IAP	26	25	1	0	0	16	0	0	0	4	12	0	4	0	0	12	0	1	12
Minn. St. Paul IAP ●	12	12	0	0	0	8	3	1	0	0	6	0	0	0	2	3	0	2	2
AIR FORCE TOTALS	**38**	**37**	**1**	**0**	**0**	**24**	**3**	**1**	**0**	**4**	**18**	**0**	**4**	**0**	**2**	**15**	**0**	**3**	**14**
MINNESOTA TOTALS	**224**	**223**	**1**	**0**	**160**	**47**	**3**	**4**	**0**	**9**	**37**	**0**	**5**	**1**	**19**	**15**	**2**	**18**	**18**
MISSISSIPPI																			
ARMY																			
AFRC Jackson	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mississippi AAP ♦	46	46	0	0	0	0	0	46	0	0	0	0	0	0	C	0	0	0	0
NG Camp McCain ♦	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Brookhaven	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Greenville, MS	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Greenwood (AMSA 144)	13	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Gulfport (Hickey)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Hattiesburg	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Jackson (Scott)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Jackson (Terry Road)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Laurel	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lyon (Clarksdale)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Meridian	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Natchez	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Pascagoula 02	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Starkville	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Tupelo	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Vicksburg 01	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Vicksburg 03	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Vicksburg 04	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	136	136	0	0	89	1	0	46	0	0	0	0	0	0	0	0	0	0	0
NAVY																			
CBC Gulfport ♦	9	9	0	0	0	9	0	0	1	0	8	0	0	0	0	3	0	0	3
NAS Meridian ♦	4	4	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0
NAVY TOTALS	13	13	0	0	0	9	4	0	1	0	8	4	0	0	0	3	0	0	3
AIR FORCE																			
A.C. Thompson ♦	6	6	0	0	0	1	5	0	0	0	1	5	0	0	0	5	0	0	5
Bay St. Louis	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Columbus AFB ♦	29	27	2	0	0	27	0	0	0	27	0	0	12	8	6	1	10	6	1
Gulfport	3	0	3	0	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0
Gulfport NCBC ♦	4	3	1	0	0	0	4	0	0	0	3	0	0	0	0	3	0	0	3
Keesler AFB ♦	15	15	0	0	0	15	0	0	0	12	0	1	0	0	0	11	4	0	8
Key Field ANG ♦	9	9	0	0	0	0	9	0	0	0	9	0	0	0	0	9	0	4	5
AIR FORCE TOTALS	67	60	7	0	0	43	21	0	0	39	15	6	12	8	6	29	14	11	22
MISSISSIPPI TOTALS	216	209	7	0	89	53	25	46	1	39	23	10	12	8	6	32	14	11	25

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1996

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
MISSOURI																			
ARMY																			
Camp Clark	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Leonard Wood	51	51	0	0	0	51	0	0	0	0	1	50	0	0	0	0	0	0	0
Gateway AAP	10	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0
Lake City AAP •	35	35	0	0	0	35	0	0	0	0	35	0	0	0	0	20	7	0	13
NG Nike Site 30	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bethany	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Cape Griardeau	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Columbia	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Farmington	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Leonard Wood (1350)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Leonard Wood (ECS 66)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Hannibal	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Independence, MO	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Jefferson City	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Joplin	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Kirksville	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Kirksville (Grim-Smith)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Maryville	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Poplar Bluff	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Richards Gebaur	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Rolla	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Springfield	16	16	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC St. Charles	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

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Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC St. Louis (AMSA 55)	19	19	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC St. Joseph	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC St. Louis (Hampton)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC St. Louis 03	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Washington	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weldon Springs Chemical Plant ●	28	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	230	230	0	0	104	98	0	0	0	0	36	50	0	0	0	20	7	0	13
NAVY																			
NPRO St. Louis	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NAVY TOTALS	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIR FORCE																			
Jefferson Barracks	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lambert Field (St. Louis)	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Richard Gebaur	10	7	3	0	0	5	3	0	0	5	1	1	3	0	2	4	0	2	4
Rosecrans Memorial Airport	4	4	0	0	0	0	4	0	0	0	4	0	0	0	0	4	0	0	4
Whiteman AFB	18	17	1	0	0	17	0	0	0	5	7	0	5	0	1	0	0	1	0
AIR FORCE TOTALS	35	28	7	0	0	22	7	0	0	10	12	1	8	0	3	8	0	3	8
MISSOURI TOTALS	266	259	7	0	105	120	7	0	0	10	48	51	8	0	3	28	7	3	21
MONTANA																			
ARMY																			
Fort Missoula	2	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
NG Limestone Hills	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Billings (AMSA 5-G)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bozeman	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

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Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
USARC Butte	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Great Falls	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Helena	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Helena (ECS 6)	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Kalispell	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARMY TOTALS	48	48	0	0	45	1	0	2	0	0	0	0	0	0	0	0	0	0	0	
AIR FORCE																				
Great Falls ANG (Montana ANG)	8	8	0	0	0	0	8	0	0	0	8	0	0	0	0	8	0	0	8	
Harve AFS, MT	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
Mallstrom	22	20	2	0	0	20	0	0	0	0	20	0	0	0	0	0	0	2	0	
AIR FORCE TOTALS	31	28	3	0	0	20	8	0	0	0	28	0	0	0	0	8	0	3	8	
MONTANA TOTALS	79	76	3	0	45	21	8	2	0	0	28	0	0	0	0	8	0	3	8	
NEBRASKA																				
ARMY																				
Cornhusker AAP •	64	64	0	0	0	64	0	0	0	0	64	0	0	58	0	3	58	0	3	
NG Camp Ashland	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Hasting	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Lincoln Support Facility	2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Mead	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Stanton	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Stapleton	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Columbus	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Fairbury	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Fremont	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Grand Island	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

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Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Hastings	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Kearney	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lincoln	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC McCook	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Meade (WET)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC North Platte	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC North Platte (AMSA 36)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Omaha (Ft. Omaha)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Omaha (Woolworth St)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Plattsmouth	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Syracuse	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wymore	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	**121**	**121**	**0**	**0**	**50**	**71**	**0**	**0**	**0**	**0**	**64**	**0**	**0**	**58**	**0**	**3**	**58**	**0**	**3**
NAVY																			
NMCRC Omaha	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NRC Lincoln	2	2	0	0	0	0	2	0	0	0	0	2	0	0	0	2	0	0	2
NAVY TOTALS	**3**	**3**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**2**
AIR FORCE																			
Lincoln ANG	9	9	0	0	0	0	6	0	0	0	0	6	0	0	0	6	0	0	6
Offutt AFB	32	31	1	0	0	30	0	1	0	0	29	2	0	0	2	2	0	3	2
AIR FORCE TOTALS	**41**	**40**	**1**	**0**	**0**	**30**	**6**	**1**	**0**	**0**	**29**	**8**	**0**	**0**	**2**	**8**	**0**	**3**	**8**
NEBRASKA TOTALS	**165**	**164**	**1**	**0**	**51**	**101**	**8**	**1**	**0**	**0**	**93**	**10**	**0**	**58**	**2**	**13**	**58**	**3**	**13**

(Continued)

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Table C-2

Defense Environmental Restoration Program
State by State Installation Status Report As of September 30, 1990

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
ARMY																				
AFRC Las Vegas	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hawthorne Army Ammunition Plant ♦	78	78	0	0	0	78	0	0	0	0	1	14	0	0	0	0	0	0	0	
NG Indian Springs Range	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Reno	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARMY TOTALS	91	91	0	0	11	80	0	0	0	0	1	14	0	0	0	0	0	0	0	
NAVY																				
NAS Fallon ♦	27	27	0	0	0	27	0	0	6	0	21	0	0	0	0	21	0	0	21	
NAVY TOTALS	27	27	0	0	0	27	0	0	6	0	21	0	0	0	0	21	0	0	21	
AIR FORCE																				
Nellis ♦	59	58	1	0	23	50	0	0	0	12	14	2	0	0	2	8	0	1	8	
Reno Cannon IAP (Nevada ANG)	7	7	0	0	0	0	0	7	0	0	7	0	0	0	0	7	0	0	7	
AIR FORCE TOTALS	66	65	1	0	23	50	0	7	0	12	21	2	0	0	2	15	0	1	15	
NEVADA TOTALS	184	183	1	0	34	157	0	7	6	12	43	16	0	0	2	36	0	1	36	
ARMY																				
NG Hopington West	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Keene	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Londonderry	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Manchester	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Rochester	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARMY TOTALS	22	22	0	0	21	1	0	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

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Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
AIR FORCE																				
New Boston AFS	14	14	0	0	0	14	0	0	7	5	0	0	5	0	1	0	1	1	0	
Pease AFB	36	30	6	0	0	25	1	0	0	2	20	0	0	0	3	8	0	10	7	
AIR FORCE TOTALS	50	44	6	0	0	39	1	0	7	7	20	0	5	0	4	8	1	11	7	
DEFENSE LOGISTICS AGENCY																				
DFSP Newington	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	1	
DEFENSE LOGISTICS AGENCY TOTALS	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	1	
NEW HAMPSHIRE TOTALS	73	67	6	0	21	41	1	0	7	8	20	0	5	0	4	9	1	11	8	
NEW JERSEY																				
ARMY																				
AFRC Red Bank (Monmouth)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Brittin USARC	3	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	
Eradcom Flight Test Activity	3	3	0	0	0	3	0	0	0	0	0	0	0	0	0	3	0	0	3	
Fort Dix	19	19	0	0	0	19	0	0	6	4	9	0	4	0	0	9	0	0	9	
Fort Monmouth	9	9	0	0	0	5	0	4	0	0	0	0	0	0	0	0	0	0	0	
Military Ocean Terminal, Bayonne	33	33	0	0	0	33	0	0	0	0	33	0	0	0	33	0	0	33	0	
Pedricktown Support Facility	5	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	
Picatinny Arsenal	57	57	0	0	0	57	0	0	0	0	1	55	0	0	0	57	0	0	57	
Storck USARC, Northfield	4	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	
Stryker USARC, Trenton	3	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	
USARC Caven Point	13	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Edison (Kilmer)	14	14	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARAC Edison (Weigel)	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Lodi	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Mount Freedom	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

BEST AVAILABLE COPY

Table C-2

Department of Defense Environmental Restoration Program
Status by Site Inventory Status Report as of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Newark	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	179	178	1	0	43	117	0	19	6	4	43	55	4	0	33	69	0	33	69
NAVY																			
NAEC Lakehurst •	45	45	0	0	0	45	0	0	2	4	39	0	0	0	4	39	0	0	43
NAPC Trenton	9	9	0	0	0	0	9	0	0	0	0	9	0	0	0	9	0	0	9
MJS Earle Colts Neck	29	29	0	0	0	13	16	0	2	0	11	0	0	0	0	11	0	0	11
NAVY TOTALS	83	83	0	0	0	58	25	0	4	4	50	9	0	0	4	59	0	0	63
AIR FORCE																			
Atlantic City Apt	6	0	6	0	0	0	0	6	0	0	0	6	0	0	0	6	0	0	6
Ceyle ANG Training Annex	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Fort Dodge	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
McGuire AFB	39	36	3	0	0	36	1	0	0	4	32	1	0	0	8	12	0	8	12
Warren Grove	2	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
AIR FORCE TOTALS	50	36	12	2	0	36	1	9	0	4	32	7	0	0	8	18	0	8	18
DEFENSE LOGISTICS AGENCY																			
DNSC Somerville	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
DEFENSE LOGISITCS AGENCY TOTALS	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NEW JERSEY TOTALS	313	298	13	2	43	212	26	28	10	12	125	71	4	0	45	146	0	41	150
NEW MEXICO																			
ARMY																			
Fort Wingate •	18	18	0	0	0	18	0	0	0	0	0	8	0	0	0	0	0	0	0
NG Carlsbad	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Demming	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Sante Fe	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2

Department of Defense Environmental Restoration Program
Status by State Installation Status Report As of September 30, 1994

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
NG Taos	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Tucumcari	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Walker Annex	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Alburquerque	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Alburquerque	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Artesia	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Las Cruces	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Roswell	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Sante Fe	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Silver City	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
White Sands Missile Range ♦	73	73	0	0	0	73	0	0	0	0	0	7	0	0	0	0	0	0	0
ARMY TOTALS	121	121	0	0	24	97	0	0	0	0	0	15	0	0	0	0	0	0	0
AIR FORCE																			
AEP No. 83, Alburquerque ♦	6	6	0	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0
Cannon AFB ♦	22	22	0	0	0	22	0	0	0	3	15	1	0	1	4	3	0	4	3
Holloman AFB ♦	51	49	2	0	0	49	2	0	0	3	10	2	0	0	2	7	0	2	7
Kirtland AFB ♦	42	42	0	0	0	42	0	0	0	1	22	0	0	1	1	8	1	1	8
AIR FORCE TOTALS	121	119	2	0	0	119	2	0	0	7	53	3	0	2	7	18	1	7	18
NEW MEXICO TOTALS	242	240	2	0	24	216	2	0	0	7	53	18	0	2	7	18	1	7	18

NEW YORK

ARMY

AFRC Albany	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Ft. Wadsworth	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Horseheads	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Drum	70	70	0	0	0	70	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-7

Department of Defense Environmental Restoration Program
State-by-State Installation Status Listing As Of September 30, 1990

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
Fort Hamilton	5	5	0	0	0	0	1	4	0	0	1	0	0	0	1	0	0	1	0	
Fort Tilden	3	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	
Fort Totten	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
NG Malone	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Olean	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Rochester	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Ticonderoga	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Niagara Falls AFRC	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Nike Site 24	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Roosevelt USARC, Hempstead	2	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
Seneca AD	32	32	0	0	0	7	25	0	0	0	2	0	0	0	0	1	0	0	1	
Stewart Army Sub Post (USMAWP)	8	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	
USA Bellmore Maint. Facility	7	7	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	
USARC Amherst	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Amityville	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC AMSA	9	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Batavia	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Bronx (Patterson)	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Bronx (Yonkers)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Bulliville	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Canandaigua	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Canton	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Corning	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Elizabethtown	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Elmira	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Gerry	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

Table C-2

Department of Defense Environmental Restoration Program
State by State Installation Status Report as of September 30, 1992

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Glen Falls	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Horseheads (AMSA 2G)	15	15	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Ithaca	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Kingston	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Little Falls	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Liverpool	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Malone	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Massena	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Massena (ESC-1 Subshop A)	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Medina (Shelby)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Newburgh (ASF 10)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Newburgh (Dupont)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Newburgh (Stewart Field)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Niagara Falls (AMSA5)	25	25	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARAC Ogdensburg	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Olean	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Orangeburg, NY	18	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Oswego	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Penn Yan	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Plattsburg	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Poughkeepsie	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Queens	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Rocky Point	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Schenectady (AMSA8)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Schenectady (Bradt)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Syracuse (ASF 6)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Tappan	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Tonawanda	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Utica	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Watertown	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wayland	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Webster (AMSA 7G)	12	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Watervliet Arsenal	23	23	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0
West Point Military Academy	4	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
Youngstown Training	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	486	486	0	0	324	119	27	16	0	0	3	0	0	0	1	1	0	1	1
NAVY																			
NAS Flyod Bennett Field	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NIROP Rochester	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NMCRC Fort Schuyler	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS New York	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS New York Stapleton	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS New York Staten Island	3	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
NUSC Fishers Island	1	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1
NWIRP Bethpage	3	3	0	0	0	0	3	0	0	0	0	3	0	0	0	3	0	0	3
NWIRP Calverton	10	10	0	0	0	2	8	0	2	0	0	8	0	0	0	4	0	0	4
NAVY TOTALS	22	22	0	0	5	2	15	0	2	0	0	12	0	0	0	8	0	0	8
AIR FORCE																			
AFP No. 38, Lewiston	10	10	0	0	0	10	0	0	0	0	0	0	0	6	0	0	6	0	0
AFP No. 59, Johnson City	8	8	0	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0
Griffiss AFB •	49	41	8	0	0	41	6	0	0	3	30	6	0	0	17	10	0	19	10

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
Hancock Field	15	14	1	0	0	7	1	0	0	7	1	0	7	0	0	0	0	0	0
Niagara Falls IAP	14	13	1	0	0	13	1	0	0	2	12	0	1	0	0	13	0	0	13
Plattsburgh AFB	30	27	3	0	0	24	1	0	0	2	15	5	0	0	3	1	0	3	2
Roslyn AGS	5	4	1	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0
Schenectady Airport ANG	2	2	0	0	0	0	2	0	0	0	2	0	0	0	0	2	0	0	2
Stewart ANG	2	2	0	0	0	2	0	0	0	0	2	0	0	0	2	0	0	0	2
Suffolk ANG	8	8	0	0	0	0	2	0	0	0	2	0	0	0	0	2	0	0	2
Suffolk County (Former)	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0
Youngstown Test (RAIDC)	10	9	1	0	0	1	9	0	0	0	0	10	0	0	0	0	0	0	0
AIR FORCE TOTALS	154	139	15	0	0	111	22	0	0	15	76	21	8	6	23	28	6	23	31
DEFENSE LOGISTICS AGENCY																			
DFSP Verona	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	1
DNSC Scotia	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
DEFENSE LOGISTICS AGENCY TOTALS	2	2	0	0	0	2	0	0	0	1	0	0	0	0	0	1	0	0	1
NEW YORK TOTALS	664	649	15	0	329	234	64	16	2	16	79	33	8	6	24	38	6	24	41
NORTH CAROLINA																			
ARMY																			
AFRC Asheboro	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Greensboro (Rives)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Camp Mackall	4	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Bragg	26	26	0	0	0	26	0	0	0	0	26	0	0	0	0	0	0	0	0
Military Ocean Terminal, Sunny Point	14	14	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0
NG OMS 17	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Tarheel Army Missile Plant	19	19	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Albemarle	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State-by-State Installation Status Listing As of September 30, 1996

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Asheville	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Brevard	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Charlotte	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Concord	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Durham	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Durham 02	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Bragg	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Garner	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Graham	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Greensboro	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Greenville	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Hickory	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC High Point	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Kinston	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lumberton	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Morehead City	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Raleigh 01	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Rocky Mount	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Salisbury	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wilmington	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wilmington (AMSA 126-G)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wilson	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wilson, NC	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Winston-Salem	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Winston-Salem (King)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Winston-Salem 02	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	155	155	0	0	91	64	0	0	0	0	26	0	0	0	0	0	0	0	0
NAVY																			
MCAS Cherry Point	34	34	0	0	0	34	0	0	14	4	16	0	3	1	0	12	2	0	12
MCB Camp LeJeune	82	82	0	0	0	71	9	2	46	1	24	0	1	0	0	14	3	0	14
NAVY TOTALS	116	116	0	0	0	105	9	2	60	5	40	0	4	1	0	26	5	0	26
AIR FORCE																			
Badin AGS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Charlotte ANG	2	2	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
Douglas IAP	2	2	0	0	0	1	1	0	0	0	0	2	0	0	0	2	0	0	2
Pope AFB	13	13	0	0	0	13	0	0	0	2	11	0	0	0	8	0	0	8	0
Seymour-Johnson AFB	22	16	6	0	0	16	2	0	0	2	11	2	0	0	7	8	0	3	8
AIR FORCE TOTALS	41	33	8	0	0	32	3	1	0	4	24	4	0	0	15	10	0	11	10
NORTH CAROLINA TOTALS	312	304	8	0	91	201	12	3	60	9	90	4	4	1	15	36	5	11	36
NORTH DAKOTA																			
ARMY																			
NG Garrison	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Williston	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Stanley R. Mickelson, SFG RSL	2	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
USARC Bismarck (AMSA 23)	16	16	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fargo	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Grand Forks	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	34	34	0	0	30	2	0	2	0	0	0	0	0	0	0	0	0	0	0

(Continued)

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State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
AIR FORCE																			
Grand Forks AFB	7	6	1	0	0	6	1	0	0	0	5	0	0	0	2	2	0	2	2
Hector ANG (ND ANG)	10	10	0	0	0	2	5	0	2	0	0	5	0	0	0	5	0	0	5
Minot AFB	4	4	0	0	0	4	0	0	0	0	4	0	0	0	1	0	0	1	0
AIR FORCE TOTALS	21	20	1	0	0	12	6	0	2	0	9	5	0	0	3	7	0	3	7
DEFENSE LOGISTICS AGENCY																			
DFSP Grand Forks	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
DEFENSE LOGISTICS AGENCY TOTALS	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
NORTH DAKOTA TOTALS	56	55	1	0	30	15	6	2	3	0	9	5	0	0	3	7	0	3	7
OHIO																			
ARMY																			
NG Blue Rock	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Camp Sherman	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Nike Site 78	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Ravenna AAP	31	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Akron (Schaffner)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Akron (Woodford)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bellaire	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bryan (AMSA 72G SUB 1)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Cadiz	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Canton 01	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Cincinnati (Morrow)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Columbus (300)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Columbus (AMSA 56)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Columbus (ASF 33)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Columbus (Whitehall)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Dayton	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Dayton (DESC)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Delaware	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fremont, OH	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Jamestown	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Kenton	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Kings Mills (AMSA 59)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lima (AMSA 58 SUB 1)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lima (Faze)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Mansfield	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Marietta	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Marion	15	15	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Milan	13	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Parma (Mote)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Perrysburg (AMSA 72)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Portsmouth	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Sharonville	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Springfield, OH	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Toledo (Phillips)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Troy, OH	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Warren	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Warrensville Heights	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wooster	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Youngstown (Kefurt)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
USARC Zanesville	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARMY TOTALS	**260**	**260**	**0**	**0**	**226**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	
NAVY																				
NWIRP Toledo	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USAF Plant 85, Columbus	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NAVY TOTALS	**2**	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	
AIR FORCE																				
AFP No. 36, Evandale	4	4	0	0	0	4	0	0	0	0	3	1	0	0	1	0	0	1	0	
AFP No. 85, Columbus	8	7	1	0	0	7	0	0	0	1	6	0	0	0	1	0	0	1	0	
Blue Ash ANG	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Camp Perry AGS	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
Mansfield Lahm Airport ANG	8	0	8	0	0	0	0	8	0	0	8	0	0	0	0	8	0	0	8	
Newark AFS	10	10	0	0	2	9	0	0	0	0	6	0	0	0	0	1	0	0	1	
Rickenbacker ANG	28	28	0	0	0	1	24	0	1	0	10	0	0	0	0	0	0	0	0	
Toledo Express Airport ANG	8	8	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	
Wright-Patterson AFB	112	89	23	0	0	61	47	2	0	1	69	17	0	0	67	0	0	88	0	
Youngstown	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
Youngstown, OH	4	4	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	
Zanesville AGS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
AIR FORCE TOTALS	**188**	**152**	**35**	**1**	**2**	**86**	**80**	**12**	**1**	**2**	**114**	**18**	**0**	**0**	**69**	**9**	**0**	**90**	**9**	
DEFENSE LOGISTICS AGENCY																				
DCSC Columbus	24	24	0	0	0	24	0	0	23	0	1	0	0	0	0	1	0	0	1	
DESC Dayton	6	6	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
DFSP Cincinnati	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
DEFENSE LOGISTICS AGENCY TOTALS	**31**	**31**	**0**	**0**	**0**	**31**	**0**	**0**	**30**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
OHIO TOTALS	**481**	**445**	**35**	**1**	**230**	**120**	**80**	**12**	**31**	**2**	**115**	**18**	**0**	**0**	**69**	**10**	**0**	**90**	**10**
LOCATION																			
ARMY																			
AFRC Broken Arrow (AMSA 20)	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Midwest City	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Camp Gruber	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Sill	47	47	0	0	0	47	0	0	0	0	0	47	0	0	0	0	0	0	0
McAlester AAP	50	50	0	0	0	50	0	0	0	0	50	0	0	0	0	0	0	0	0
NG Army Aviation Support Facility	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Combined Support Maintenance SHP	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Hugo	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Kegleman Aux Field	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG OMS 01	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG OMS 02	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG OMS 05	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG OMS 06	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG OMS 08	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG OMS 10	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG OMS 11	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG OMS 13	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG OMS 15	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Perry	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
USARC Ada	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Antlers	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Ardmore	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Chickasha	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Clinton	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Duncan	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Durant	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Enid	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Fort Sill (ECS 65)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Guymon	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Lawton	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC McAlester	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Miami	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Muskogee	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Norman	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Norman 02	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Oklahoma City (50th Street)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Oklahoma City (Krowse)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Oklahoma City (Perez)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Okmulgee	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Ponca City	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Shawnee	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Stigler	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Stillwater	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Tulsa (Reese)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Tulsa 02	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	**217**	**217**	**0**	**0**	**105**	**112**	**0**	**0**	**0**	**0**	**50**	**47**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
AIR FORCE																			
AFP No. 3, Tulsa	12	12	0	0	0	12	0	0	0	0	12	0	0	0	0	3	0	0	3
Altus AFB	10	10	0	0	0	10	0	0	0	0	10	0	0	0	0	10	0	0	10
Oklahoma City ANG	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Tinker AFB ●	34	31	3	0	0	30	1	0	0	3	26	0	1	0	20	5	0	16	8
Tulsa IAP	2	0	2	0	0	0	1	1	0	0	1	0	0	0	0	1	0	0	1
Vance AFB	22	20	2	0	0	20	0	0	0	10	10	0	4	5	1	5	8	3	4
Will Rogers World Airport	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIR FORCE TOTALS	**82**	**74**	**8**	**0**	**0**	**72**	**3**	**1**	**0**	**13**	**59**	**0**	**5**	**5**	**21**	**24**	**8**	**19**	**26**
OKLAHOMA TOTALS	**299**	**291**	**8**	**0**	**105**	**184**	**3**	**1**	**0**	**13**	**109**	**47**	**5**	**5**	**21**	**24**	**8**	**19**	**26**

OREGON

ARMY																			
AFRC Coos Bay	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Roseburg	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Warrenton	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Camp Adair	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Redmond	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Umatilla Army Depot Activity ●	116	116	0	0	0	116	0	0	40	0	76	0	0	0	0	76	0	0	76
USARC Bend	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Corvallis	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Eugene	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Medford	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Portland (Airport)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

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Department of Defense Environmental Restoration Program
Status by State/Installation Status Report as of September 30, 1991

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Portland (South)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Portland (West)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Salem	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	154	154	0	0	36	118	0	0	40	0	76	0	0	0	0	76	0	0	76
AIR FORCE																			
Kingsley Field	12	12	0	0	0	0	9	0	0	0	0	9	0	0	0	9	0	0	9
North Bend ANG	9	9	0	0	0	1	2	0	0	0	2	0	0	0	0	0	0	0	0
Portland ANG	9	9	0	0	0	1	8	0	1	0	8	0	0	0	0	8	0	0	8
AIR FORCE TOTALS	30	30	0	0	0	2	19	0	1	0	17	9	0	0	0	17	0	0	17
OREGON TOTALS	184	184	0	0	36	120	19	0	41	0	93	9	0	0	0	93	0	0	93
[illegible]																			
ARMY																			
AFRC Beaver Falls	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Bellefonte	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Erie	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Folsom	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Philadelphia 06	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C.E. Kelly Support Facility	4	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
Carlisle Barracks	3	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Family Housing Pittsburgh 43	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Fort Indiantown Gap	5	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
Hays AAP	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Letterkenny Army Depot ●	63	63	0	0	0	52	10	0	18	5	26	1	3	2	1	1	2	1	1
Manor Launch Site	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
New Cumberland Army Depot	20	20	0	0	0	1	19	0	8	0	1	18	0	1	1	0	0	2	0

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	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
NG East Jadwin Dam	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Lock Haven	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Nike Site 43	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Nike Site, Finleyville	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Nike Site, Gastonville	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scranton Army Ammunition Plant	10	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	
Tobyhanna AD ●	21	21	0	0	0	19	0	0	0	0	17	0	0	1	1	1	0	1	2	
USARC Altoona	6	6	0	0	6	0	0	0	3	0	0	0	0	0	0	0	0	0	0	
USARC Ashley	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Belle Vernon	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Bethlehem	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Bloomsburg	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Bristol	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Brookville	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Brownsville, PA	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Butler	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Center Square	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Chambersburg	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Chester	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Clarion	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Clearfield	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Downingtown	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Du Bois	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Edgemont	17	17	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Erie	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Farrell	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Franklin	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

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	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
USARC Germantown	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Gettysburg	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Greencastle (AMSA 113)	15	15	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Greensburg	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Greensburg (AMSA 104)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Harrisburg	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Hazelton	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Horsham 01	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Horsham 02	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Huntingdon	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Indiana	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Johnston 01	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Johnston 02	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Kane	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Kittanning	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Lancaster	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Lewsiburg	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Lewistown	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Lock Haven	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Marcus Hook	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Meadville	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC New Castle (AMSA 110)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC New Cumberland	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC New Kensington	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Norristown	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC North Park	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

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Department of Defense Environmental Restoration Program
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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Northeast Philadelphia	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Oil City	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Pittsburgh 01	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Pittsburgh 02	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Pittsburgh 03	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Punxsutawney (AMSA 106)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Quakertown	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Ranshaw	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Reading	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Schuylkill Haven	14	14	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Scranton	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC St. Mary's	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC State College	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Stockertown	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Tobyhanna	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Uniontown	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Washington, PA	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wilkes-Barre	18	18	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wilkes-Barre (AMSA 32G)	17	17	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Williamsport	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Willow Grove	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Willow Grove (ASF 23)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Willow Grove (Wurts)	19	19	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC York	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	569	569	0	0	435	91	29	11	26	5	44	19	3	4	3	2	2	4	3

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
NAVY																			
NADC Warminster ●	9	9	0	0	0	9	0	0	1	0	8	0	0	0	0	8	0	0	8
NAS Willow Grove	17	17	0	0	0	1	16	0	0	1	0	16	0	0	1	16	0	0	17
NASO Philadelphia	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NAVHOSP Philadelphia	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSY Philadelphia	16	16	0	0	0	16	0	0	3	4	9	0	0	4	0	9	0	8	9
SPCC Mechanicsburg	11	11	0	0	0	2	9	0	1	1	0	9	0	0	1	9	1	0	10
NAVY TOTALS	55	55	0	0	2	28	25	0	5	6	17	25	0	4	2	42	1	8	44
AIR FORCE																			
Fort Indiantown AGS	5	4	1	0	0	4	0	1	0	0	4	0	0	0	0	0	0	0	0
Greater Pittsburgh IAP	12	12	0	0	0	7	0	0	1	2	4	0	2	0	0	1	0	0	1
Olmsted Field	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
State College	5	4	1	0	0	4	0	1	0	0	4	0	0	0	0	0	0	0	0
Willow Grove ARF	7	7	0	0	0	7	0	0	0	3	4	0	2	1	0	0	0	1	0
AIR FORCE TOTALS	30	27	2	1	0	22	0	3	1	5	16	0	4	1	0	1	0	1	1
DEFENSE LOGISTICS AGENCY																			
DPSC Philadelphia	15	15	0	0	0	15	0	0	13	0	2	0	0	0	0	2	0	0	2
DEFENSE LOGISTICS AGENCY TOTALS	15	15	0	0	0	15	0	0	13	0	2	0	0	0	0	2	0	0	2
PENNSYLVANIA TOTALS	669	666	2	1	437	156	54	14	45	16	79	44	7	9	5	47	3	13	50
PUERTO RICO																			
ARMY																			
Camp Santiago	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Allen	6	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State-by-State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
Fort Buchanan	28	28	0	0	0	28	0	0	0	0	28	0	0	0	0	28	0	0	28
ARMY TOTALS	**35**	**35**	**0**	**0**	**0**	**29**	**0**	**6**	**0**	**0**	**28**	**0**	**0**	**0**	**0**	**28**	**0**	**0**	**28**
NAVY																			
NS Roosevelt Roads	21	21	0	0	0	19	0	2	3	1	15	1	0	0	0	17	3	0	17
NSGA Sabana Seca	7	7	0	0	0	5	0	2	3	0	2	2	0	0	0	4	2	0	4
Supship San Juan	3	3	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0
NAVY TOTALS	31	31	0	0	0	27	0	4	9	1	17	3	0	0	0	21	5	0	21
AIR FORCE																			
Muniz ANG	10	10	0	0	0	0	10	0	0	0	10	0	0	0	10	0	0	10	0
Punta Salinas ANG	3	3	0	0	0	0	0	3	0	0	0	3	0	0	0	3	0	0	3
AIR FORCE TOTALS	13	13	0	0	0	0	10	3	0	0	10	3	0	0	10	3	0	10	3
PUERTO RICO TOTALS	79	79	0	0	0	56	10	13	9	1	55	6	0	0	10	52	5	10	52
RHODE ISLAND																			
ARMY																			
AFRC Providence (Hopkins)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lincoln Support Facility	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Camp Fogarty	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
US Army N. Smithfield Nike Site 99	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bristol, RI	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Cranston	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Nathaniel Greene	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lincoln (AMSA 68G)	13	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Providence (Harwood)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Warwick	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	**37**	**37**	**0**	**0**	**33**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
NAVY																			
AFRC Providence	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CBC Davisville	14	14	0	0	0	14	0	0	4	0	10	0	0	0	0	3	0	2	3
NAS Charlestown	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NAS Quonset Point	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NETC Newport	15	15	0	0	0	15	0	0	5	0	6	4	0	0	0	5	0	0	6
NAVY TOTALS	32	32	0	0	3	29	0	0	9	0	16	4	0	0	0	8	0	2	9
AIR FORCE																			
Coventry AGS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
North Smithfield	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Quonset State Airport ANG	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIR FORCE TOTALS	5	0	5	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
DEFENSE LOGISTICS AGENCY																			
DFSP Melville	2	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2	0	0	2
DEFENSE LOGISTICS AGENCY TOTALS	2	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2	0	0	2
RHODE ISLAND TOTALS	76	71	5	0	36	33	0	2	9	0	16	6	0	0	0	10	0	2	11
SOUTH CAROLINA																			
ARMY																			
Fort Jackson	21	21	0	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Clarks Hill Reservation	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Aiken	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Anderson	15	15	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Charleston	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Clemson	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Columbia (Forest Drive)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Columbia 02	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Florence	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Jackson (ECS 124-G)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Jackson (Lee Rd.)	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Jackson (McWhorter)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Greenville 01 (Mahon)	12	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Greenville 02 (Kukowski)	12	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Greenwood (Montague)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Myrtle Beach	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC North Charleston	12	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Orangeburg	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Rock Hill	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Spartanburg	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC York, SC	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	**137**	**137**	**0**	**0**	**115**	**22**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
NAVY																			
MCAS Beaufort	23	23	0	0	0	17	6	0	9	0	0	13	0	0	0	3	0	0	3
MCRD Parris Island	19	19	0	0	0	14	5	0	0	0	0	19	0	0	0	0	0	0	0
NAVBASE Charleston	12	12	0	0	0	12	0	0	0	0	12	0	0	0	0	1	4	0	1

(Continued)

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Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
NWS Charleston	18	18	0	0	0	18	0	0	12	0	3	3	0	0	0	6	0	0	6
NAVY TOTALS	72	72	0	0	0	61	11	0	21	0	15	35	0	0	0	10	4	0	10
AIR FORCE																			
Charleston AFB	31	30	1	0	0	30	1	0	0	4	25	1	2	0	4	19	0	4	19
McEntire ANG	12	12	0	0	0	8	0	0	0	0	8	0	0	0	0	8	0	0	8
Myrtle Beach AFB	27	16	11	0	0	16	2	0	0	2	10	2	0	0	3	11	0	11	11
Shaw AFB	19	16	3	0	0	16	2	0	0	2	9	0	0	0	7	1	0	8	1
AIR FORCE TOTALS	89	74	15	0	0	70	5	0	0	8	52	3	2	0	14	39	0	23	39
DEFENSE LOGISTICS AGENCY																			
DFSP Charleston	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0
DEFENSE LOGISTICS AGENCY TOTALS	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0
SOUTH CAROLINA TOTALS	299	284	15	0	115	154	16	0	21	9	67	38	2	0	15	49	4	24	49
SOUTH DAKOTA																			
ARMY																			
USARC Aberdeen	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Sioux Falls	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	16	16	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIR FORCE																			
Ellsworth AFB	25	25	0	0	0	25	0	0	0	3	20	1	0	0	0	2	0	0	2
Joe Foss	6	6	0	0	0	1	1	0	0	0	0	2	0	0	0	2	0	2	0
AIR FORCE TOTALS	31	31	0	0	0	26	1	0	0	3	20	3	0	0	0	4	0	2	2
SOUTH DAKOTA TOTALS	47	47	0	0	16	26	1	0	0	3	20	3	0	0	0	4	0	2	2

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
TENNESSEE																				
ARMY																				
AFRC Johnson City	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Holston AAP	24	24	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	
Milan Army Ammunition Plant ●	19	19	0	0	0	19	0	0	3	0	16	0	0	1	0	15	0	1	15	
NG AEDC Tullahoma	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Catoosa Range	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG John Sevier	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Smyrna Airport	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Chattanooga	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Chattanooga (Guerry)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Greeneville	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Knoxville	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Lyell (AFRC)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Memphis 01	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Memphis 02	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Nashville	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Oak Ridge	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Volunteer AAP	28	28	0	0	0	27	0	0	25	0	3	0	0	0	0	3	0	0	2	
ARMY TOTALS	117	117	0	0	42	74	0	0	28	0	19	0	0	1	0	18	1	0	18	
NAVY																				
NAS Memphis	13	13	0	0	0	0	13	0	0	0	0	5	0	0	0	5	0	0	7	
NWIRP Bristol	9	9	0	0	0	4	5	0	4	0	0	5	0	0	0	5	0	0	5	
NAVY TOTALS	22	22	0	0	0	4	18	0	4	0	0	10	0	0	0	10	0	0	12	

(Continued)

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Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
AIR FORCE																			
Alcoz AGS	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arnold AFB	25	19	6	0	0	19	3	0	0	0	22	0	0	0	3	9	0	8	7
Lovell Field	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
McGhee Tyson Airport	14	11	3	0	0	0	10	0	0	0	11	0	0	0	0	7	0	0	7
Memphis ANG	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nashville ANG	1	1	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1
AIR FORCE TOTALS	44	31	13	0	0	19	14	1	0	0	34	0	0	0	3	17	0	8	15
DEFENSE LOGISTICS AGENCY																			
DDMT Memphis	75	75	0	0	0	75	0	0	0	0	75	0	0	1	0	41	1	0	41
DEFENSE LOGISTICS AGENCY TOTALS	75	75	0	0	0	75	0	0	0	0	75	0	0	1	0	41	1	0	41
TENNESSEE TOTALS	258	245	13	0	42	172	32	1	32	0	128	10	0	2	3	86	2	8	86

TEXAS

ARMY																			
AFRC Austin (Camp Mabry)	15	15	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Corpus Christi (AMSA 7)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Mesquite	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Midland	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Camp Bullis	16	15	0	0	0	0	4	11	0	0	0	0	0	0	0	0	0	0	0
Canyon Lake Recreation Area	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Corpus Christi AD	17	17	0	0	0	17	0	0	0	0	0	17	0	0	0	0	0	0	0
Corpus Christi USARC	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
El Paso Site	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Fort Bliss	29	29	0	0	0	29	0	0	0	1	0	0	0	0	1	0	0	1	0
Fort Hood	52	52	0	0	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
Fort Sam Houston	28	28	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0
Fuels and Lubricant Research Lab	2	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
Lake Lavon, North Gully, Wylie	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star AAP •	38	38	0	0	0	32	0	0	0	0	21	6	0	0	0	14	0	0	7
Longhorn AAP	59	59	0	0	0	16	0	10	0	0	9	50	0	0	0	0	1	0	0
NG Addicks Reservoir	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Barker Dam DZ	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Camp Barkeley	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Camp Swift	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Decatur	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Fort Wolters	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Nike Site 80	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Panhandle Training Area	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Reservoir Texarcana	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG West Cleveland	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Red River Army Depot	32	32	0	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0
Saginaw Army Aircraft Plant	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
USA Houston Armed Forces Center	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
USARC Abilene	14	14	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Alice	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Amarillo	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Amarillo 02	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Arlington	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Austin (Camp Mabry)	15	15	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Austin 02	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Austin 03	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

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Department of Defense Environmental Restoration Program
Site by State Installation Status Report As of September 30, 1991

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
USARC Bay City, TX	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Beaumont (AMSA 6)	14	14	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Beaumont (Laurel)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Brownsville	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Bryan (Moore)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Bryan 02	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Conroe (ASF 62)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Corpus Christi (Memorial)	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Dallas 01 (Muchert)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Dallas 02	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Dallas 03	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Denton	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC El Paso	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Fort Bliss (AMSA 12)	12	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Fort Bliss (Biggs Field Pet)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Fort Worth (HOT)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Fort Worth 02	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Fort Worth (AMSA 5, SUB 2)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Grand Prairie (ASF 13)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Harlingen (AMSA 7, SUB 1)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Houston 02 (AMSA 4)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Huntsville	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Laredo	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Lubbock	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

Table C-5

Department of Defense Environmental Restoration Program
Status by State/Installation Status Report (As of September 30, 1991)

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Lubbock (AMSA 11)	12	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lubbock (Hospital TNG)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC McAllen	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC North Fort Hood (ESC 61)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Paris	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Pasadena	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Port Arthur	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Rio Grande City	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC San Antonio (Boswell)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC San Antonio (Callaghan)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC San Marcos	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Seagoville	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Sinton	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Texarkana (AMSA 5 SUB 1)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Tyler	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Victoria	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Waco	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Waco (AMSA 8)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wichita Falls	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wichita Falls 02	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Yoakum	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	568	568	0	0	279	216	5	28	0	1	30	73	0	0	1	14	1	1	7

(Continued)

Table C-7

Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1992

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
NAVY																				
NAS Chase Field	4	4	0	0	0	0	4	0	0	0	0	4	0	0	0	1	0	0	1	
NAS Corpus Christi	15	15	0	0	0	15	0	0	12	0	3	0	0	0	0	1	0	0	1	
NAS Dallas	12	12	0	0	0	12	0	0	10	0	0	2	0	0	0	2	0	0	2	
NAS Kingsville	13	13	0	0	0	6	7	0	6	0	0	7	0	0	0	2	0	0	2	
NWIRP Dallas	11	11	0	0	0	11	0	0	4	0	0	7	0	0	0	6	0	0	6	
NWIRP McGregor	16	16	0	0	0	16	0	0	13	0	3	0	0	0	0	3	0	0	3	
NAVY TOTALS	71	71	0	0	0	60	11	0	45	0	6	20	0	0	0	15	0	0	15	
AIR FORCE																				
AFP No. 4, Ft. Worth •	29	23	6	0	0	23	0	0	0	10	13	0	0	0	28	0	0	28	0	
Bergstrom AFB	31	31	0	0	14	27	0	0	3	3	10	1	2	0	0	10	0	0	10	
Brooks AFB	13	12	1	0	0	12	1	0	0	2	4	7	0	1	0	2	1	0	2	
Carswell AFB	18	17	1	0	0	17	1	0	0	3	3	9	2	0	8	0	0	0	0	
Dyess AFB	10	10	0	0	0	10	0	0	0	6	4	0	5	0	2	2	0	2	2	
Ellington ANG	5	5	0	0	0	2	2	0	0	0	4	1	0	0	0	2	0	0	2	
Garland	5	4	1	0	0	4	0	1	0	0	4	0	0	0	0	0	0	0	0	
Goodfellow AFB	6	5	1	0	0	5	0	0	0	3	2	0	3	0	2	0	1	1	0	
Kelly AFB	72	66	6	0	0	66	1	0	0	3	61	7	0	0	6	3	0	7	3	
Lackland	24	24	0	0	0	24	0	0	0	5	9	0	0	10	1	8	10	1	8	
LaPorte AGS	5	4	1	0	0	4	0	1	0	0	4	0	0	0	0	0	0	0	0	
Laughlin	13	13	0	0	0	13	0	0	0	13	0	0	8	5	0	0	5	0	0	
Nederland AGS	5	4	1	0	0	4	0	1	0	0	4	0	0	0	0	0	0	0	0	
Randolph AFB	32	30	2	0	0	30	0	0	0	13	15	0	6	5	4	4	6	11	3	
Reese AFB	13	13	0	0	0	13	0	0	0	6	7	0	2	3	3	0	3	3	1	
Sheppard AFB	18	18	0	0	0	18	0	0	1	14	3	0	10	0	5	9	4	1	9	
AIR FORCE TOTALS	299	279	20	0	14	272	5	3	4	81	147	25	38	24	59	40	30	54	40	
TEXAS TOTALS	938	918	20	0	293	548	21	31	49	82	183	118	38	24	60	69	31	55	62	

(Continued)

Table C-2

Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
TRUST TERRITORIES																			
NAVY																			
NAF Midway	3	3	0	0	0	0	3	0	0	0	0	3	0	0	0	3	0	0	3
NAVY TOTALS	3	3	0	0	0	0	3	0	0	0	0	3	0	0	0	3	0	0	3
AIR FORCE																			
Wake Island Airfield	23	23	0	0	0	23	0	0	0	0	23	0	0	0	0	23	0	0	23
AIR FORCE TOTALS	23	23	0	0	0	23	0	0	0	0	23	0	0	0	0	23	0	0	23
TRUST TERRITORIES TOTALS	26	26	0	0	0	23	3	0	0	0	23	3	0	0	0	26	0	0	26
UTAH																			
ARMY																			
Blanding Launch Area	2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Dugway Proving Ground	127	127	0	0	0	127	0	0	0	6	22	4	6	0	0	0	0	0	0
Fort Douglas	23	23	0	0	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0
Green River Test Site	12	12	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0
Tooele AD, North Area	44	44	0	0	0	20	24	0	14	1	5	23	0	1	0	28	0	1	28
Tooele AD, South Area	27	27	0	0	0	27	0	0	0	0	27	0	0	0	0	27	0	0	27
USARC Logan	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Ogden	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Ogden (AMSA 31)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Ogden Depot	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Pleasant Grove	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Provo	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Salt Lake City	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Salt Lake City (ASF 24)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

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Table C-2

Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
Wig Mountain Area	5	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	301	301	0	0	61	193	24	23	14	7	54	27	6	1	0	55	0	1	55
NAVY																			
NIROP Magna	6	6	0	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0
NAVY TOTALS	6	6	0	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0
AIR FORCE																			
AFP No. 78, Corinne	19	19	0	0	0	19	0	0	0	9	10	0	0	0	10	0	0	10	0
Francis Peak AGS	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Hill AFB	39	30	9	0	1	26	10	1	0	3	22	0	0	0	10	3	0	10	1
Salt Lake City IAP ANG (Utah ARNG)	7	0	7	0	0	0	0	7	0	0	7	0	0	0	0	7	0	0	7
AIR FORCE TOTALS	66	49	16	1	1	45	10	9	0	12	39	0	0	0	20	10	0	20	8
DEFENSE LOGISTICS AGENCY																			
DDOU Ogden ●	44	44	0	0	0	44	0	0	22	0	22	0	0	0	0	11	0	0	11
DEFENSE LOGISTICS AGENCY TOTALS	44	44	0	0	0	44	0	0	22	0	22	0	0	0	0	11	0	0	11
UTAH TOTALS	417	400	16	1	62	288	34	32	36	19	121	27	6	1	20	76	0	21	74

Table C-2 (Continued)

ARMY																			
Ethan Allen Firing Range	6	6	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0
USARC Chester, VT	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Montpelier	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Rutland (Courcelle)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Winooski	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	23	23	0	0	17	0	1	4	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
AIR FORCE																			
Burlington IAP (Vermont ANG) ♦	2	2	0	0	0	2	0	0	0	0	2	0	0	0	0	2	0	0	2
AIR FORCE TOTALS	2	2	0	0	0	2	0	0	0	0	2	0	0	0	0	2	0	0	2
VERMONT TOTALS	25	25	0	0	17	2	1	4	0	0	2	0	0	0	0	2	0	0	2
VIRGIN ISLANDS																			
AIR FORCE																			
St. Croix	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
AIR FORCE TOTALS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
VIRGIN ISLANDS TOTALS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
VIRGINIA																			
ARMY																			
AERC Lynchburg	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arlington Hall Station	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Cameron Station	6	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0
Defense Mapping Agency - Herndon	5	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
Fort A.P. Hill	245	245	0	0	0	0	0	245	0	0	0	0	0	0	0	0	0	0	0
Fort Belvoir	59	59	0	0	0	17	0	34	0	0	0	0	0	0	0	0	0	0	0
Fort Eustis	26	26	0	0	0	26	0	0	0	26	0	0	0	0	26	0	0	26	0
Fort Lee	23	23	0	0	0	6	1	16	0	1	0	0	0	2	0	0	1	0	0
Fort Monroe	3	3	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0
Fort Myer	5	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
Fort Story	3	3	0	0	0	1	0	2	0	1	0	0	0	0	0	0	0	0	0
NG Byrd Field	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Callaghan	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2

Department of Defense Environmental Restoration Program
State(s), Site/Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
NG Richlands	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG VA Beach	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Radford AAP	33	33	0	0	0	33	0	0	0	0	30	0	0	0	0	1	0	0	1	
USARC Abingdon	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Alexandria	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Alexandria (Jones Point)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Charlottesville	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Chesterfield (AMSA 90)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Chincoteague (Wallops Is.)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Christiansburg (AMSA 89)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Churchland (Portsmouth)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Covington	2	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Culpeper	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Galax	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Hampton	10	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Hampton (Marcella Road)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Lawrenceville	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Martinsville	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Norfolk	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Radford	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Radford (New River)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Richmond (Dervishian)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Richmond 01 (Monteith)	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Richmond, VA	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State-by-State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Salem, VA	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Springfield (AMSA 91)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Warsaw	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Waynesboro	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vint Hill Farms Station	4	4	0	0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0
Woodbridge Research Facility	13	13	0	0	0	9	0	0	8	1	0	0	0	1	0	0	1	0	0
ARMY TOTALS	542	541	1	0	112	100	3	315	8	30	30	0	0	3	26	1	2	26	1
NAVY																			
AFEXTA Camp Peary, Williamsburg	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arlington Service Center	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COMNAVBASE Norfolk	20	18	0	0	0	18	0	0	12	0	6	0	0	0	0	6	0	2	6
FCTC Dam Neck	6	6	0	0	0	6	0	0	4	0	2	0	0	0	0	2	0	0	2
Headquarters Battalion, Arlington	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MCCDC Quantico	19	19	0	0	0	19	0	0	11	1	7	0	0	1	0	7	1	2	7
NADEP Norfolk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
NAS Oceana	21	21	0	0	0	21	0	0	4	0	12	5	0	0	0	17	0	0	17
NAVHOSP Portsmouth	2	2	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0	0	0
NAVPHIBASE Little Creek	17	17	0	0	0	12	5	0	6	0	6	5	0	0	0	11	0	0	11
NAVRADSTA Driver	8	8	0	8	0	8	0	0	5	0	3	0	0	0	0	3	0	0	3
NFD/NSC Craney Island	13	13	0	0	0	13	0	0	7	2	4	0	0	0	0	6	0	0	6
NMCRC Roanoke	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSC Cheatham Annex Williamsburg	12	12	0	0	0	12	0	0	8	0	4	0	0	0	0	3	0	0	3
NSC Yorktown Fuels Division	20	20	0	0	0	20	0	0	6	0	14	0	0	0	0	14	0	0	14
NSGA Nwest Chesapeake	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSWC Dahlgren	37	37	0	0	0	34	3	0	28	0	6	3	0	0	0	9	0	0	9

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State-by-State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
NSY (Norfolk) Portsmouth	19	19	0	0	0	19	0	0	11	0	8	0	0	0	0	8	0	0	8
NWS St. Julien's Creek Annex, Norfolk	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NWS Yorktown	20	20	0	0	0	20	0	0	4	2	14	0	2	0	0	14	0	0	14
NAVY TOTALS	218	217	1	0	5	203	9	0	106	5	86	15	2	1	0	100	1	5	100
AIR FORCE																			
Byrd ANG (Richmond IAP)	3	3	0	0	0	0	0	3	0	0	0	3	0	0	0	3	0	0	3
CONUS Radar Sites	37	37	0	0	17	37	0	0	0	37	0	0	0	5	0	18	1	4	18
Langley AFB	36	36	0	0	14	34	1	0	0	1	12	0	0	0	1	0	0	2	0
Richmond ANG	2	2	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
AIR FORCE TOTALS	78	78	0	0	31	73	1	3	0	38	14	3	0	5	1	21	1	6	21
DEFENSE LOGISTICS AGENCY																			
DGSC Richmond •	30	30	0	0	0	30	0	0	18	0	12	0	0	0	0	6	0	0	7
DEFENSE LOGISTICS AGENCY TOTALS	30	30	0	0	0	30	0	0	18	0	12	0	0	0	0	6	0	0	7
VIRGINIA TOTALS	868	866	2	0	148	406	13	318	132	73	142	18	2	9	27	128	4	37	129
WASHINGTON																			
ARMY																			
AFRC Bellingham	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Bellingham (Stevens)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Ellensburg	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Port Orchard	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Tacoma	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC Yakima	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Federal Regional Center Bothell	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2
Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
Fort Lewis ●	68	68	0	0	0	68	0	0	0	8	60	0	0	0	8	1	1	0	9
NG Camp Murray	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0
NG Camp Seven Mile	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Nike Site 43	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bothell	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Clarkston	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Everett	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fort Lawton (AMSA 7)	13	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Kennewick	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Longview	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Moses Lake	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Pasco	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Redmond	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Spokane	12	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Trentwood (AMSA 8)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Tumwater	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Walla Walla	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wenatchee	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Yakima (Pendlton)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vancouver Barracks	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0
Yakima Firing Center	37	37	0	0	0	37	0	0	0	0	0	37	0	0	0	0	0	0	0
ARMY TOTALS	204	204	0	0	94	109	0	1	0	9	60	38	0	0	9	1	1	1	9
NAVY																			
Jackson Park Housing, Bremerton	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	1
NAS Whidbey Island ●	50	50	0	0	0	50	0	0	11	0	14	25	0	0	0	30	0	0	30
NAVHOSP Bremerton	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	1

(Continued)

Table C-2

Department of Defense Environmental Restoration Program
State by State Installation Status Report As of September 30, 1990

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
NAVRADSTA/T/Jim Creek	8	8	0	0	0	6	0	2	6	0	0	0	0	0	0	0	0	0	0	
NAVRESMAINTRAFAC Puget Sound	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
NS Puget Sound	1	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1	
NSB Bangor •	41	41	0	0	0	41	0	0	16	4	21	0	4	0	0	21	1	0	21	
NSC Puget Sound Bremerton	1	1	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	1	
NSC Puget Sound Manchester	2	2	0	0	0	2	0	0	1	1	0	0	0	0	1	0	0	0	1	
NSY Puget Sound	18	18	0	0	0	8	10	0	8	0	0	10	0	0	0	10	0	0	10	
NUWES Indian Island Det.	10	10	0	0	0	10	0	0	7	1	2	0	0	1	0	2	2	0	2	
NUWES Keyport •	9	9	0	0	0	9	0	0	3	0	6	0	0	0	0	6	0	0	6	
NAVY TOTALS	143	143	0	0	0	129	11	3	53	6	45	37	4	1	1	73	3	0	74	
AIR FORCE																				
Bellingham MAP	2	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
Camp Murray AGS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
Fairchild AFB •	44	43	1	0	0	43	0	0	0	1	40	2	0	0	4	3	0	5	3	
Four Lakes	2	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
Makah AFS	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	
McChord AFB •	77	73	4	0	0	71	5	0	0	7	60	2	0	0	15	1	0	14	0	
Paine Field AGS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
Seattle AGS	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
Spokane IAP	2	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
AIR FORCE TOTALS	134	117	15	2	0	115	5	6	0	8	101	4	0	0	19	4	0	19	4	

(Continued)

Table C-2

Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30 1993

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
DEFENSE LOGISTICS AGENCY																			
DFSP Mukilteo	2	2	0	0	0	2	0	0	0	0	2	0	0	0	0	2	0	0	2
DEFENSE LOGISTICS AGENCY TOTALS	2	2	0	0	0	2	0	0	0	0	2	0	0	0	0	2	0	0	2
WASHINGTON TOTALS	483	466	15	2	94	355	16	10	53	23	208	79	4	1	29	80	4	20	88

WEST VIRGINIA

ARMY																			
AFRC Morgantown	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC South Charleston	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFRC South Charleston (AMSA 107)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Hinton	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Volcano Range	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Beaver	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Bluefield	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Clarksburg	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC East Rainelle	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Elkins	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fairmont	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Grafton	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Grantsville	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Huntington	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Jane Lew	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Lewisburg, WV	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Martinsburg	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC New Martinsville	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Parkersburg	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2

Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1990

	Total # of Sites	Number of Sites																	
		FA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
USARC Parkersburg (AMSA 114)	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Ripley	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Romney	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Valley Grove (AMSA 109)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Weirton	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Wheeling	3	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Virginia Ordnance Works ●	6	6	0	0	0	6	0	0	0	6	0	0	0	3	3	0	3	3	0
ARMY TOTALS	95	94	1	0	87	8	0	0	0	6	0	0	0	3	3	0	3	3	0
NAVY																			
ABL Mineral County ♦	10	10	0	0	0	10	0	0	0	0	10	0	0	0	0	6	0	0	6
NAVRADSTA/R/ Sugar Grove	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NAVY TOTALS	11	11	0	0	1	10	0	0	0	0	10	0	0	0	0	6	0	0	6
AIR FORCE																			
EWVRA Shepherd Field ♦	4	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Yeager ♦	4	4	0	0	0	0	0	4	0	0	4	0	0	0	0	4	0	0	4
AIR FORCE TOTALS	8	8	0	0	0	0	1	4	0	0	4	0	0	0	0	4	1	0	4
WEST VIRGINIA TOTALS	114	113	1	0	88	18	1	4	0	6	14	0	0	3	3	10	4	3	10
WISCONSIN																			
ARMY																			
Badger Army Ammunition Plant	32	32	0	0	18	14	0	0	2	0	11	1	0	1	0	10	0	1	10
Camp Williams	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Camp Wismer	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

(Continued)

Table C-2

Department of Defense Environmental Restoration Program
State by State Installation Status Listing As of September 30, 1989

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
Fort McCoy	26	26	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0
NG INO Range	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NG Truax Field	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
USARAC Hurley (AMSA 52 SUB 1)	8	8	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Appleton	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Beaver Dam	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Beloit	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Chippewa Falls	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC De Pere (AMSA 51)	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Dodgeville	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Eau Claire (AMSA 52)	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Eau Claire (Keith)	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Ellsworth	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Fond du Lac	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Green Bay	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Green Bay (Buchanan Street)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Ladysmith	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Madison (AMSA 50)	13	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Madison (O'Connell)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Madison (Park St.)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Manitowoc	8	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Menasha	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Milwaukee (AMSA 49)	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Milwaukee (Logan)	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USARC Milwaukee (Silver Spring)	16	16	0	0	16	0	0	0	0	0	1	0	0	0	1	0	0	1	0

(Continued)

Table C-2

Department of Defense Environmental Restoration Program

State by State Installation Status Report As of September 30, 1990

	Total # of Sites	Number of Sites																		
		PA				SI				RI/FS				RD			RA			
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F	
USARC Onalaska (AMSA 53)	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Onalaska (Industrial Road)	12	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Oshkosh	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Milwaukee	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Racine	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Sheboygan	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Sparta (Fort McCoy 240)	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Sparta (Ft. McCoy ECS 67)	14	14	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USARC Wausau	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARMY TOTALS	240	240	0	0	190	44	0	0	2	0	12	1	0	1	1	10	0	2	10	
AIR FORCE																				
Gen. Mitchell Field	4	4	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	
Hardwood WR	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
Truax Field (Air Force)	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Volk Field ANG	17	17	0	0	0	8	2	0	0	0	8	0	0	0	0	0	0	0	0	
AIR FORCE TOTALS	25	24	0	1	0	12	2	1	0	0	12	0	0	0	0	0	0	0	0	
WISCONSIN TOTALS	265	264	0	1	190	56	2	1	2	0	24	1	0	1	1	10	0	2	10	
ARMY																				
AASF, Cheyenne ♦	1	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	
AFRC Sheridan	5	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Lander	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
NG Lovell	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

Table C-2

Department of Defense Environmental Restoration Program
Status by Site/Installation Name (as of September 30, 1994)

	Total # of Sites	Number of Sites																	
		PA				SI				RI/FS				RD			RA		
		C	U	F	N	C	U	F	N	C	U	F	N	C	U	F	C	U	F
NG Sheridan	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
ARMY TOTALS	**9**	**9**	**0**	**0**	**5**	**4**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
AIR FORCE																			
Cheyenne ANG (Wyoming ANG)	5	5	0	0	0	0	5	0	0	0	0	5	0	0	0	5	0	0	5
F.E. Warren AFB ♦	30	29	0	1	0	27	2	1	0	0	29	1	0	0	0	1	0	0	1
AIR FORCE TOTALS	35	34	0	1	0	27	7	1	0	0	29	6	0	0	0	6	0	0	6
WYOMING TOTALS	44	43	0	1	5	31	7	1	0	1	29	6	0	1	0	6	0	0	6

Table C-3

Defense Environmental Restoration Program
Site Status Summary As of September 30, 1991

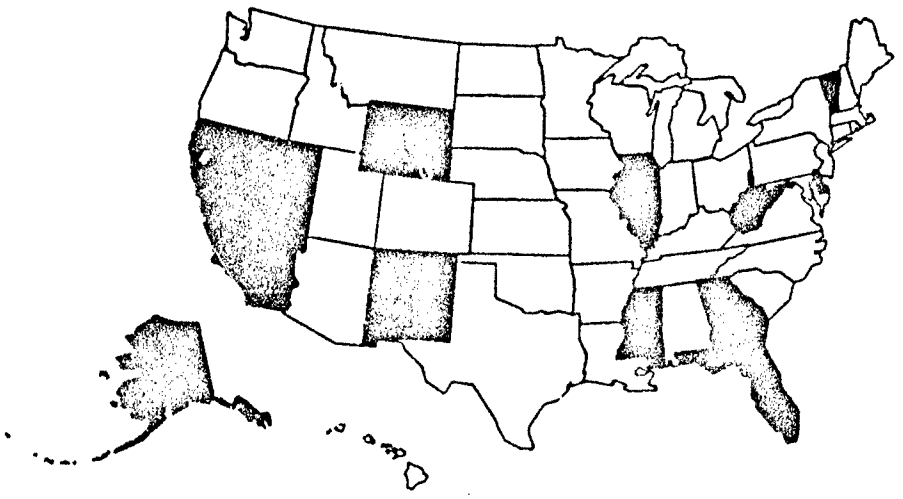
Component	Number of Sites C	U	F	N
Army	10,447	5	7	4,801
Navy	2,222	28	3	57
Air Force	3,850	625	38	142
DLA	257	0	0	0
Grand Total	**16,776**	**658**	**48**	**5,000**
Army	4,469	154	745	214
Navy	1,579	543	64	701
Air Force	3,320	566	126	94
DLA	257	0	0	102
Grand Total	**9,625**	**1,263**	**935**	**1,111**
Army	301	971	730	21
Navy	51	750	531	17
Air Force	557	2,650	276	212
DLA	7	140	3	0
Grand Total	**916**	**4,511**	**1,540**	**250**
Army	134	269	415	
Navy	8	20	1,051	
Air Force	116	774	999	
DLA	3	3	94	
Grand Total	**261**	**1,066**	**2,559**	
Army	135	276	409	
Navy	31	50	1,084	
Air Force	127	862	984	
DLA	3	3	95	
Grand Total	**296**	**1,191**	**2,572**	

Appendix D
State Status

This Appendix to the Annual Report provides state by state information regarding NPL, DSMOA, and IAG status. For the states, the following information is given:

- Number of installations in the IRP
- Number of NPL-listed DoD installations
- Number of NPL installations covered by a signed IAG
- Number of NPL-listed FUDS
- Number of installations covered by a DSMOA (for states with a signed DSMOA)
- FY 90 funding provided to the state under the DSMOA.

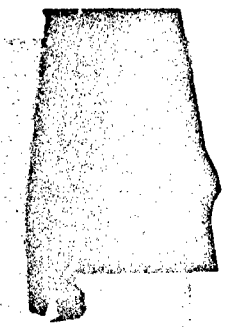
For clarification as to which installations are included in the following counts, see Table C-2.



States with signed DSMOAs

Alabama

Installations in IRP:	45
NPL-listed DoD Installations:	2
NPL Installations Covered by a Signed IAG:	2
NPL-listed FUDS:	0



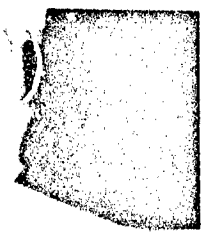
Alaska

Installations in IRP:	51
NPL-listed DoD Installations:	3
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0
Installations Covered by a DSMOA:	75
FY 90 Funding Provided to State Under the DSMOA:	$277,826

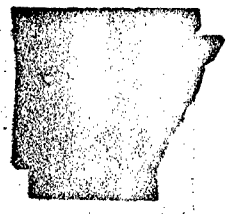


Arizona

Installations in IRP:	19
NPL-listed DoD Installations:	3
NPL Installations Covered by a Signed IAG:	2
NPL-listed FUDS:	1



Arkansas



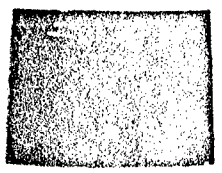
Installations in IRP:	33
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

California



Installations in IRP:	141
NPL-listed DoD Installations:	18
NPL Installations Covered by a Signed IAG:	14
NPL-listed FUDS:	0
Installations Covered by a DSMOA:	79
FY 90 Funding Provided to State Under the DSMOA:	$5,120,000

Colorado



Installations in IRP:	22
NPL-listed DoD Installations:	2
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	0

Connecticut



Installations in IRP:	24
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

Delaware



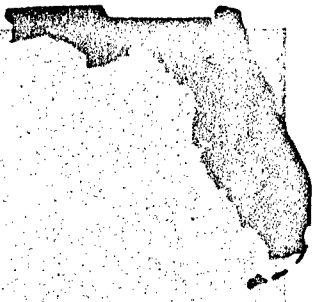
Installations in IRP:	11
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	0
Installations Covered by a DSMOA:	2
FY 90 Funding Provided to State Under the DSMOA:	$179,696

District of Columbia



Installations in IRP:	9
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

Florida



Installations in IRP:	61
NPL-listed DoD Installations:	4
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0
Installations Covered by a DSMOA:	15
FY 90 Funding Provided to State Under the DSMOA:	$523,480

Georgia



Installations in IRP:	36
NPL-listed DoD Installations:	2
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	0
Installations Covered by a DSMOA:	13
FY 90 Funding Provided to State Under the DSMOA:	$0*

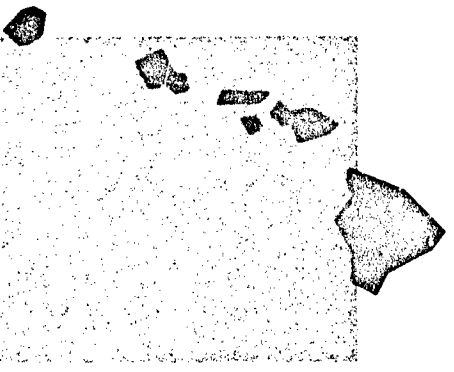
*Have not yet applied for funding.

Guam



Installations in IRP:	9
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

Hawaii



Installations in IRP:	46
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

Idaho



Installations in IRP:	20
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

Illinois



Installations in IRP:	60
NPL-listed DoD Installations:	2
NPL Installations Covered by a Signed IAG:	2
NPL-listed FUDS:	1
Installations Covered by a DSMOA:	14
FY 90 Funding Provided to State Under the DSMOA:	$177,719

Indiana

Installations in IRP:	29
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	1



Iowa

Installations in IRP:	27
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	0



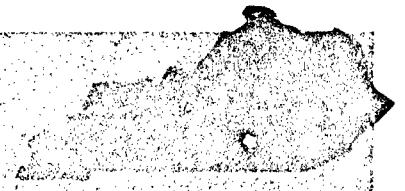
Kansas

Installations in IRP:	40
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	0



Kentucky

Installations in IRP:	30
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0



Louisiana

Installations in IRP:	31
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	0



Maine

Installations in IRP:	18
NPL-listed DoD Installations:	2
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	0



Maryland



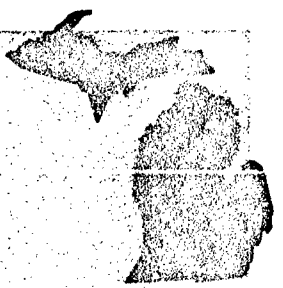
Installations in IRP:	54
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	0

Massachusetts



Installations in IRP:	28
NPL-listed DoD Installations:	3
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

Michigan



Installations in IRP:	36
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

[redacted]

Installations in IRP:	29
NPL-listed DoD Installations:	3
NPL Installations Covered by a Signed IAG:	2
NPL-listed FUDS:	0



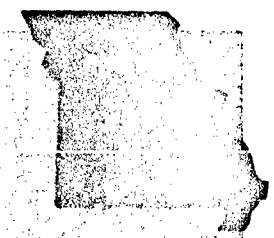
Mississippi

Installations in IRP:	29
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0
Installations Covered by a DSMOA:	10
FY 90 Funding Provided to State Under the DSMOA:	$100,000

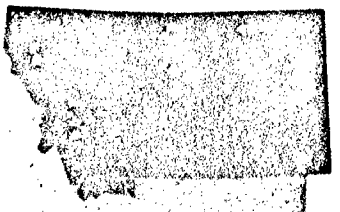


Missouri

Installations in IRP:	35
NPL-listed DoD Installations:	2
NPL Installations Covered by a Signed IAG:	2
NPL-listed FUDS:	1

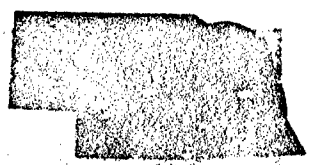


Montana



Installations in IRP:	12
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

Nebraska



Installations in IRP:	27
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	2

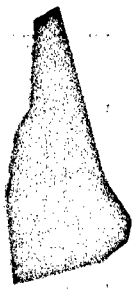
Nevada



Installations in IRP:	7
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0
Installations Covered by a DSMOA:	3
FY 90 Funding Provided to State Under the DSMOA:	$217,696

New Hampshire

Installations in IRP:	8
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0



New Jersey

Installations in IRP:	25
NPL-listed DoD Installations:	4
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	0



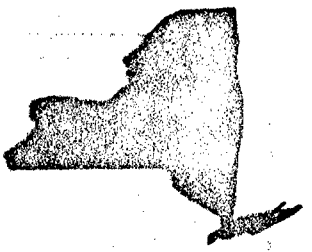
New Mexico

Installations in IRP:	19
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0
Installations Covered by a DSMOA:	8
FY 90 Funding Provided to State Under the DSMOA:	$241,624



New York

Installations in IRP:	88
NPL-listed DoD Installations:	3
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	2



North Carolina

Installations in IRP:	41
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	1

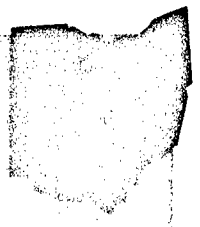


North Dakota

Installations in IRP:	10
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

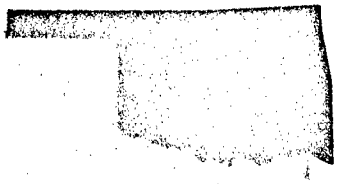


Ohio



Installations in IRP:	57
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

Oklahoma



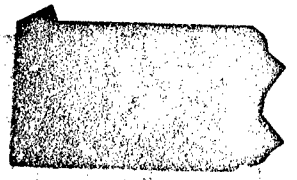
Installations in IRP:	52
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	0

Oregon



Installations in IRP:	17
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	0

Pennsylvania

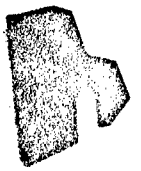


Installations in IRP:	102
NPL-listed DoD Installations:	3
NPL Installations Covered by a Signed IAG:	3
NPL-listed FUDS:	0

Puerto Rico

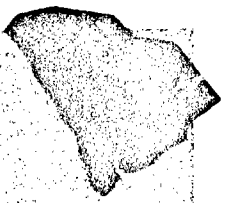
Installations in IRP:	8
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

Rhode Island



Installations in IRP:	19
NPL-listed DoD Installations:	2
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

South Carolina



Installations in IRP:	30
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

South Dakota



Installations in IRP:	4
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

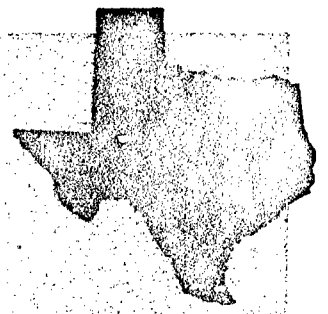
Tennessee



Installations in IRP:	26
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	0

Texas

Installations in IRP:	104
NPL-listed DoD Installations:	3
NPL Installations Covered by a Signed IAG:	2
NPL-listed FUDS:	0

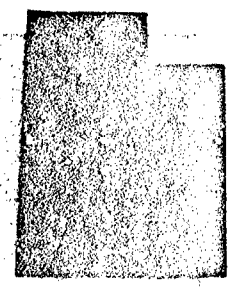


Trust Territories

Installations in IRP:	2
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

Utah

Installations in IRP:	21
NPL-listed DoD Installations:	3
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	0



Vermont



Installations in IRP:	6
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0
Installations Covered by a DSMOA:	1
FY 90 Funding Provided to State Under the DSMOA:	$119,138

Virgin Islands



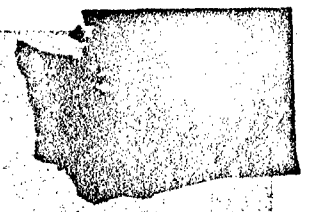
Installations in IRP:	1
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

Virginia



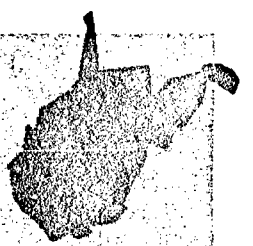
Installations in IRP:	68
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	1
NPL-listed FUDS:	0

Washington



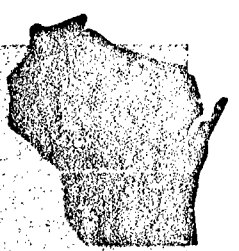
Installations in IRP:	50
NPL-listed DoD Installations:	6
NPL Installations Covered by a Signed IAG:	6
NPL-listed FUDS:	0

West Virginia



Installations in IRP:	30
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	2
Installations Covered by a DSMOA:	3
FY 90 Funding Provided to State Under the DSMOA:	$104,522

Wisconsin



Installations in IRP:	41
NPL-listed DoD Installations:	0
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0

Wyoming



Installations in IRP:	7
NPL-listed DoD Installations:	1
NPL Installations Covered by a Signed IAG:	0
NPL-listed FUDS:	0
Installations Covered by a DSMOA:	2
FY 90 Funding Provided to State Under the DSMOA:	$315,284

Sum of States

Installations in IRP:	1,855
NPL-listed DoD Installations:	89
NPL Installations Covered by a Signed IAG:	51
NPL-listed FUDS:	11
Installations Covered by a DSMOA:	225
FY 90 Funding Provided to States Under the DSMOA:	$7.5 million

Appendix E
Formerly Used Defense Sites on the NPL

This Appendix to the Annual Report provides summary information for each FUDS listed on the NPL as of the end of FY 90. Key data are provided in Table E-1.

Table E-1
FUDS on the NPL

Site	State	HRS Score
Fisher-Calo, LaPorte	IN	52.05
Hastings Ground Water Contamination, Hastings	NE	42.24
Litchfield Airport Area, Goodyear/Avondale	AZ	45.91
Malta Rocket Fuel Area, Malta	NY	33.62
Marathon Battery Corp., Cold Spring	NY	30.27
Nebraska Ordnance Plant (Former), Mead	NE	31.94
New Hanover County Airport Burn Pit, Wilmington	NC	39.39
Ordnance Works Disposal Areas, Morgantown	WV	35.62
Sangamo Electric Dump/Crab Orchard National Wildlife Refuge (USDOI), Carterville	IL	43.70
Weldon Spring Ordnance Works, St. Charles County,	MO	30.26

Fisher-Calo
LaPorte, Indiana



Service:	Department of War
Size:	13, 453 Acres
HRS Score:	52.05
Base Mission:	Ordnance plant
IAG Status:	Not Applicable
Action Dates:	Placed on NPL September 1983; RI completed May 1989; FS completed April 1990; ROD signed August 1990
Contaminants:	Organic solvents, PCBs, inorganics, polynuclear aromatic hydrocarbons
DOD Funding to Date:	$22,000

Preliminary Assessment/ Site Inspection (PA/SI)

The former Kingsbury Ordnance Plant (KOP), constructed by Todd and Brown for the Department of War (later the DoD), began explosives manufacturing and loading operations in 1941. From 1946 through 1951, KOP was operated by the U.S. Government Ordnance Department and was used for storage and demilitarization of explosives. The American Safety Razor Company operated the plant and manufactured ordnance under government contract from 1951 until 1959, when the plant was placed on inactive status. While the plant was on inactive status, it was managed by the U.S. Rubber Company. In 1964, the property was purchased by the Kingsbury Industrial Development Management Corp. and the State of Indiana Department of Parks and Recreation (Fish and Wildlife Division) from the General Services Administration.

The Fisher-Calo Superfund Site is 443 acres, approximately 3 percent of the previous ordnance works acreage. The contamination is believed to stem from the activities of the Fisher-Calo Chemical and Solvents Corp. (FCC). FCC was primarily involved in the packaging, storage, and distribution of industrial chemicals as well as the reclamation of waste paint and metal finishing solvents. Drum storage, burial, and disposal activities have been cited by state and federal agencies.

The primary exposure pathway is through the ground water, and the contaminant concentrations in each of the identified contaminant plumes could present an unacceptable risk to human health. Water wells in the vicinity are at risk due to the migration of the contaminant plumes.

DoD has received notices from EPA in regard to the Fisher-Calo Superfund Site, although conversations with the EPA project manager and EPA's counsel have indicated their concern initially was based on the asbestos siding used to construct the buildings. The expansion of their interest will apparently be based only on any specific contaminants that can be attributed to DoD that are discovered during the expanded sampling work being performed by the PRP Committee's consultant. Participation in negotiations with the PRPs will be dictated by the results of the PRP consultant's expanded sampling/ analysis and quality assurance of the explosives results from splits taken by USACE, Omaha District.

Remedial Investigation/ Feasibility Study (RI/FS)

An RI was completed in May 1989, and an FS was completed in April 1990. Both the RI and FS were performed by EPA contractors.

The RI included geophysical surveys to locate buried drums or tanks; monitoring well installation; soil, sediment, and surface water sample analysis; soil gas field screening; hydrogeologic testing; and aquifer measurements.

Surface water samples from a discharge lagoon at one of the processing areas contained inorganic compound contamination and the sediment sample from the same location contained PCBs and other organic contaminants.

Fisher-Calo
LaPorte, Indiana

(Continued)

Other pond areas also were contaminated with inorganics and solvents.

Surface soils were contaminated with solvents, inorganics, and PCBs. Many of the surface soil contaminants were detected in the subsurface soils and the ground water.

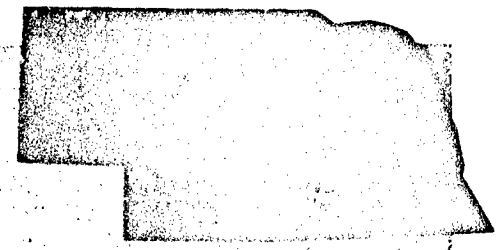
Ground water contamination included chlorinated organic solvents and VOCs.

Remedial Design/ Remedial Action (RD/RA)

The ROD was signed on August 7, 1990 and specifies a complex remedy. The ROD includes excavation and incineration of soils containing semi-volatiles and PCBs above established cleanup levels. Soil flushing or, if proven effective, soil vapor extraction for VOC contaminated soils, also is specified. Incinerator ash testing is to be performed to determine the disposal location of the ash. Ground water extraction, treatment, reinjection, and monitoring, as well as development of an asbestos handling program, are planned. A buried drum investigation and removal of drums, tanks, and containers also will be performed.

The RD/RA has not been started. Special Notice letters were issued October 10, 1990, allowing 60 days for the PRPs to make a proposal to EPA. Negotiations with the established PRP group will hinge on the analytical results described above.

Hastings Ground Water Contamination
Hastings, Nebraska



Service:	Navy
Size:	2,600 Acres
HRS Score:	42.24
Base Mission:	Ammunition production, loading, and storage
IAG Status:	Not Applicable
Action Dates:	Placed on NPL 1986; ROD signed 1990
Contaminants:	Explosive compounds, VOCs and metals in ground water and soils, semi-volatiles (PAHs) in soils
DERP Funding to Date:	$6.4 million

Preliminary Assessment/ Site Inspection (PA/SI)

The Hastings East Industrial Park (HEIP) NPL site is part of the former 48,753-acre Blaine Naval Ammunition Depot (NAD). The NAD was decommissioned between 1958 and 1966, and portions of the property were transferred to other government agencies or sold to private parties. The HEIP NPL site contains much of the area where production occurred. Soil and ground water are contaminated with explosives and organic compounds. Potential impact on receptors includes the health threat posed to workers at various businesses and farming operations, and to site residents, through direct contact with or accidental ingestion of contaminated soil. The principal health threat is posed by contaminated ground water from currently operating irrigation wells and possible future consumption of explosive compound contaminated ground water. A USACE PA/SI was not conducted at this site, which was placed on the NPL as a result of investigations conducted by EPA and the State of Nebraska before 1986.

Remedial Investigation/ Feasibility Study (RI/FS)

During the RI, historical documents and 40 years of aerial photographs and NAD facility drawings were reviewed. Interviews with former NAD employees and site reconnaissances were conducted to identify probable areas of contamination. Following these activities, more than 150 areas were sampled for chemical analyses. Two phases of field work were conducted, which involved the installation and sampling of 41 monitoring wells; test trenching; soil borings; sampling of surface water, surface soils, sanitary sewers, and catch basins; borehole geophysical surveys; and an ambient air quality survey. The RI data were used to prepare a baseline risk assessment, which concluded that "an unacceptable level of risk may be associated with human activities at this site." Information gathered during the RI was used in preparing the FS, in which alternatives for remediation of soil and ground water contamination were developed, as well as preliminary estimates of volumes of contaminated materials. The RI/FS and ROD for the surface soil OU were completed in 1990, in coordination with EPA Region VII and the Nebraska Department of Environmental Control.

Remedial Design/ Remedial Action (RD/RA)

The RD for the surface soil OU will be initiated in 1991. The estimated cost of the surface soil cleanup is $45 million.

Litchfield Airport Area
Goodyear/Avondale, Arizona

[illegible]	Navy
[illegible]	730 Acres
[illegible]	45.91
[illegible]	Acceptance, modification, preservation, depreservation, and storage of Naval aircraft
[illegible]	Not Applicable
[illegible]	Placed on NPL 1983; OU RI/FS and ROD completed 1987; RI/FS and ROD for the Final Remedy completed 1989
[illegible]	Trichloroethylene
DOD Funding to Date:	$2.7 million

Preliminary Assessment/ Site Inspection (PA/SI)

The southern portion of the site includes the Loral facility (formerly Goodyear Aerospace) and the Phoenix-Goodyear municipal airport (formerly Litchfield Park Naval Air Field). From 1941 to 1987, Goodyear owned and operated an industrial manufacturing/assembly facility for manufacturing parts and modifying and assembling aircraft. Maintenance operations included vapor degreasing operations using TCE, plane washing, application of spraylat, and installation of kits.

TCE contamination was found in soils and ground water. Goodyear, Loral, the city of Phoenix, and DoD have all been identified as PRPs. In May 1988, USACE reached a cost share agreement with Goodyear for the OU that consists of the remediation of the Subunit A aquifer. Further negotiations or litigation are pending.

Remedial Investigation/ Feasibility Study (RI/FS)

EPA completed RI/FS work in 1989. Contaminants were found in soil and ground water and include organic compounds.

Ground water is found at depths of 50 to 60 feet below the surface, with the shallowest water-bearing sediment defined as Subunit A. This aquifer is separated by a clay rich unit, Subunit B, from a deeper aquifer, Subunit C. Subunit C is encountered from 190 to 300 feet below the surface and is a primary source for drinking water. Subunit A is contaminated by a 7,000-foot long plume extending southwestward from the developed portion of the site. This plume is estimated to contain 6,500 pounds of TCE. Subunit C has a broad area of contamination, extending at very low concentrations, under 10 ppb of TCE, up to 3 miles from the site. Higher concentrations are limited to the vicinity of the developed portion of the site. Soil contamination has been identified based on numerous soil borings conducted at the developed portion of the site. Soil concentrations have been measured up to 4,400 ug/kg (ppb). Soil contamination has been found in borings drilled on both former Goodyear and former Navy property. Contamination is believed to be largely the result of waste generated at the Goodyear facility and disposed in storm sewers that ultimately drain to the former Navy property.

Remedial Design/ Remedial Action (RD/RA)

A ROD was approved in September 1987 for the Section 16 OU. The Section 16 OU addressed VOC-contaminated ground water in Subunit A. Remedial action for OU ground water was developed during an OU FS that was completed in 1987. EPA selected extraction and air stripping as the preferred remedy. Phase I of the OU is underway.

The Subunit A plume remediation includes ground water extraction and treatment, followed by reinjection of the treated water. The

Litchfield Airport Area
Goodyear/Avondale, Arizona

(Continued)

extraction wells remove water from the downgradient half of the plume. A second phase of the project will include extraction wells and piping to address the highest concentration portion of the Subunit A plume. The treatment plant will need to be modified for the second phase with the addition of off-gas carbon treatment.

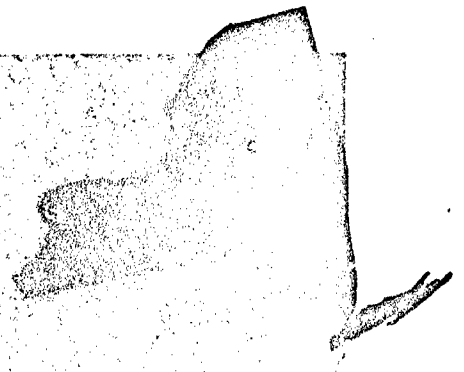
A ROD in September 1989 for the final remedy addresses the vadose zone and Subunits B/C ground water contamination for the entire site. The State of Arizona concurs with EPA's selected remedy. The 1989 ROD requires soil vapor extraction (SVE) for the area containing 99 percent of the mass of contaminants. Under this alternative, VOCs would be extracted through a system including area on both the former Goodyear and Naval Air Facility properties. The ROD requires that all SVE units be equipped with emission controls.

The cleanup of Subunit C requires the plume above drinking water standards be captured, piped to a central location, and treated. The treated water will be made available to the City of Goodyear, the local municipal water provider, discharged to a local irrigation district, or sent to recharge wells.

The SVE is intended to remove contaminants from soil in the target zone with minimal impacts on existing facilities and operations. Pilot studies for SVE were conducted in 1988 at the PGA site.

Remedial design and implementation are pending completion of negotiations and development of the Consent Decree.

Malta Rocket Fuel Area
Malta, New York



Services:	Army and Air Force
Size:	196.36 Acres
NPL Status:	32.02
Site Ownership:	Research and Development
IAG Status:	Participation agreement signed 1989
Action Dates:	Placed on NPL 1987; PA/SI completed 1989
Contaminants:	Carbon tetrachloride, chloroform, PCBs, trichloroethylene, boron
DOD Funding to Date:	$38,000

Preliminary Assessment/ Site Inspection (PA/SI)

The Malta Test was established by the Army in 1945 and used for rocket engine and exotic rocket fuels testing. This site was a GOCO facility. General Electric was the contractor and operator of the facility from 1945 to 1964 for the federal government, at which time the property was conveyed to the New York State Atomic and Space Development Authority. Hazardous substances were found in drinking water, ground water, surface water, septic tank liquid, and sludge, and in containers located onsite. An Early Warning Monitoring System has been installed upgradient from several public wells, which are located downgradient from the site.

Remedial Investigation/ Feasibility Study (RI/FS)

EPA has issued a unilateral order to all of the non-federal PRPs for the purpose of conducting an RI/FS. EPA is currently reviewing the RI/FS work plan.

USACE, on behalf of DoD, entered into a sidebar participation agreement with the other PRPs, obligating DoD to 37 percent of the cost of the RI/FS.

Remedial Design/ Remedial Action (RD/RA)

Not identified yet.

Marathon Battery Corp.
Cold Spring, New York

Service:	Army
Size:	820 Acres
HRS Score:	30.27
Base Mission:	Production of Nickel-Cadmium Batteries
IAG Status:	Not Applicable
Action Dates:	Placed on NPL 1981; Area I ROD signed September 1988; Area II ROD signed September 1988; Area III ROD signed September 1989
Contaminants:	Cadmium, nickel, cobalt
DOD Funding to Date:	$260,000

Preliminary Assessment/ Site Inspection (PA/SI)

The Marathon Battery site is located on the east bank of the Hudson River in the village of Cold Springs, New York. The facility was constructed in 1952 for the U.S. Army Signal Corps for the production of nickel-cadmium batteries. Initial operations were contracted to the Sonotone Corporation. In September 1962, Sonotone Corporation purchased the plant and added 35,000 square feet of production area. Between 1962 and March 1979, the plant was owned and operated by various private parties. In November 1980, Merchandise Dynamics, Inc. purchased the facility for a book storage and distribution facility. Marathon Battery Co.; Gould, Inc.; and Merchandise Dynamics, Inc. have been named as PRPs along with the Army. High concentrations of heavy metals were found in the marsh sediments below the outlet of the storm sewer that previously served as an emergency outlet. Concentrations of metals also have been found in the soils of the plant property and adjacent residential areas and in the building dust. The area is used by local residents for fishing, crabbing, boating, and nature observation.

In 1972, Marathon Battery Co.; Sonotone Corp.; Clevite, Inc.; and Gould, Inc. were required to remove all deposits of cadmium in excess of 900 mg/kg net weight from the Kemble Avenue storm sewer outfall area, the channel connecting the outfall area to the main body of East Foundry Cove, and the area just west of and adjacent to the marsh in East Foundry Cove. Between November 1972 and July 1973, dredging was conducted in East Foundry Cove. The dredge spoils were de-watered and buried in a clay-lined underground vault on the plant property. Studies conducted from 1976 to 1980 by NYSDEC, EPA, and New York University indicated, however, that East Foundry Cove was still contaminated, much of it at concentrations greater than 900 mg/kg.

Remedial Investigation/ Feasibility Study (RI/FS)

The site consists of three distinct areas: Area I - 270 acres of Constitution Marsh and 14 acres of East Foundry Cove Marsh; Area II - the former battery plant and property (11 acres), the dredge spoils vault, and affected residential property surrounding the plant; and Area III - 492 acres of open water of the Hudson River in the vicinity of the Village of Cold Springs pier and West Foundry Cove and 34 acres of tidal flat and East Foundry Cove. The State of New York and the EPA, with input from the PRPs, have conducted an RI/FS for all areas and issued RODs. EPA issued an Administrative Order to the private PRPs on March 26, 1989 for the building decontamination, consisting of power washing and vacuuming for cadmium, dust removal, book cleaning, and disposal.

Marathon Battery Corp.
Cold Spring, New York

(Continued)

Contamination in Areas I and III

Water and sediment sampling revealed contamination with cadmium, cobalt, and nickel throughout the upper 50 cm of sediment in the Pier Area and West Foundry Cove. In East Foundry Cove, cadmium contamination in surficial sediments is found only in the 0 to 10 cm depth.

Surface water contamination by cadmium, cobalt, and nickel was not significantly different among stations during this investigation. No significant contribution of sediment-bound metals to the Hudson River could be determined from the results of this investigation.

Concentrations of the contaminant metals in surficial sediments were found to be in the thousands, tens of thousands, and hundreds of thousands of in East Foundry Cove Marsh sediments near the Kemble Avenue storm sewer outfall. Cadmium concentration levels in surficial sediment samples from Constitution Marsh and Constitution Pond 40 to 50 cm in depth had a mean cadmium concentration of 11 mg/kg with a range of 5 to 25 mg/kg.

Contamination in Area II

The RI/FS was prepared by EPA's contractor, Ebasco, in April 1988. Five different media were sampled during the RI: surface soils, subsurface soils, ground water, and dust and concrete borings from the former battery plant. All media were found to be contaminated by the activities performed at the plant. Onsite soils were found to be contaminated with heavy metals, VOCs, base/neutral extractable compounds, and pesticides. Levels of metal contamination decrease with distance from the former battery plant and with depth from ground surface. Metal contamination is limited to the upper 60 to 90 cm (2 to 3 feet) of the site soils. The sources of this contamination are believed to be air emissions from former ventilation units and contaminated debris that was removed from the building and still litters the site.

Contamination in Area III

Dust samples from the building and book surfaces were analyzed for cadmium, cobalt, and nickel. Cadmium concentrations as high as 15,300 mg/kg were found. The mean concentrations of cadmium was 5,946 mg/kg. Cobalt concentrations ranged from 1.2 to 462 mg/kg, with a mean of 33.26 mg/kg, while nickel dust concentrations ranged from 36 to 21,500 mg/kg, with a mean of 6,771 mg/kg.

Approximately 5,000 cubic yards of sediment were deposited in an underground vault located on the former battery plant grounds in 1972. These sediments have a cadmium concentration ranging from 1,000 to 3,000 mg/kg. Five monitoring wells were installed around the perimeter of the dredge spoils vault, and subsurface soils and ground water were analyzed to determine whether the cadmium, cobalt, and nickel contaminated sediments had leaked from the vault. The results of these analyses showed that contaminated sediments have not migrated from the vault.

Remedial Design/ Remedial Action (RD/RA)

The selected remedy for Areas I and III is hydraulic dredging, sediment thickening, fixation, and offsite disposal. The no action (monitoring) alternative was selected for Constitution Marsh.

The selected remedy for Area II has three specific components: ground water, soils and building dust, and the sediment vault. The no action alternative selected for the ground water requires no active cleanup effort, but does require monitoring, public education, and maintenance. Building decontamination/soil excavation/fixation/-enhanced volatilization/offsite disposal are required for the soils and building dust component. The vault cleanup is composed of sediment excavation/ chemical fixation/offsite disposal.

The plan for building decontamination has been submitted for EPA approval. The design for the remaining Area II remediation has not begun, pending determination of the extent of residential soil to be treated. The remedial design for Area I is being completed by USACE under an IAG. The remedial action is pending final negotiation of the Consent Decree for Area II; Areas I and III settlement negotiations have not been initiated.

Nebraska Ordnance Plant (Former)
Mead, Nebraska



Service:	Army
Size:	17,214 Acres
HRS Score:	51.94
Base Mission:	The former Ordnance Plant produced 100- to 12,000-pound aerial bombs during World War II and the Korean Conflict; Currently used as an Agricultural Research Station for University of Nebraska
IAG Status:	To be negotiated December 1990
Action Dates:	Placed on NPL 1990; RI/FS Initiated 1989
Contaminants:	Explosives, volatiles, PCBs
DOD Funding to Date:	$1.9 million

Preliminary Assessment/ Site Inspection (PA/SI)

The DoD property was transferred to various groups and individuals in 1962. The major owners are currently the University of Nebraska and the Nebraska National Guard. The major portions of the former Nebraska Ordnance Site that were investigated included four bomb loading lines, a demolition area, a burning ground, a crystallizing plant, a bomb booster area, and various support buildings. Explosive residues were found in the soils adjacent to three of the bomb load lines and two explosives compounds were identified in a ground water sample taken near load line No. 2. TCE was found in three ground water monitoring wells. Bottled water is being provided to one family in the vicinity due to contamination found in their private well.

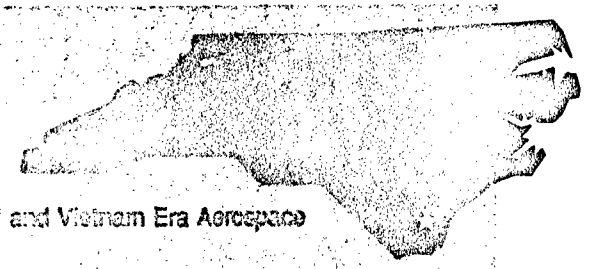
Remedial Investigation/ Feasibility Study (RI/FS)

Additional soil and ground water samples have been taken to determine the extent of contamination. Initial sampling results have indicated that two major plumes of contamination exist. Additional exploration will be conducted to define more clearly the plume boundaries. A TRC has been formed and includes representatives from the EPA, Nebraska Department of Environmental Control, Nebraska Department of Health, Lincoln Water System, Natural Resource District, University of Nebraska, and USACE.

Remedial Design/ Remedial Action (RD/RA)

Preliminary activities on RD/RA have begun; however, the major portion will be conducted after the completion of the RI/FS activities.

New Hanover County Airport Burn Pit
Wilmington, North Carolina



Service:	Army and Air Force
Size:	4 Acres
HRS Score:	39.39
Base Mission:	World War II Bomber Command and Vietnam Era Aerospace Defense Command Airfield
IAG Status:	PRP agreement signed 1990 (removal action)
Action Dates:	Placed on NPL 1989; PA/SI completed 1987
Contaminants:	Heavy metals, semi-volatiles, VOCs
DOD Funding to Date:	$20,600

Preliminary Assessment/ Site Inspection (PA/SI)

The site has several fire training stations, which consist of a main burn pit, an above-ground fuel storage tank, a fire smoke house, one railroad tanker car, and a number of old automobiles used for fire training. The PA/SI was conducted by the State of North Carolina. Contaminated fuels were found in the 10,000-gallon above ground fuel storage tank, which is connected to the various fire training stations. DoD, New Hanover County, Cape Fear Technical Institute Foundation (Community College), and the city of Wilmington, North Carolina have been identified as PRPs. Past practices involved placing crude oil recovered from spills and storage tank waste bottoms into the burn pit, igniting the contents, then extinguishing the fire. DoD conveyed the property to New Hanover County in 1977.

Remedial Investigation/ Feasibility Study (RI/FS)

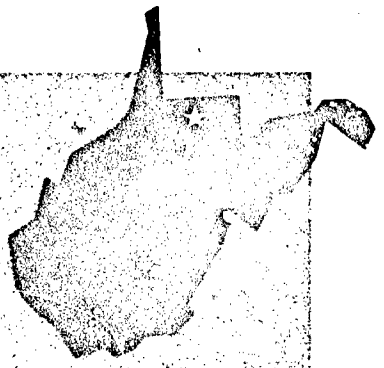
EPA Region IV had scheduled to conduct the RI/FS in September 1990, but the bid submitted to EPA exceeded the funds allocated. To reduce the cost of the RI/FS, EPA will accept the analytical data collected during the scheduled removal action as part of the RI/FS. EPA has not identified a new start date for the RI/FS.

The non-federal PRPs have signed a Consent Order issued by EPA for the removal of known contamination in and around the main burn pit, which poses a threat to human health and the environment. USACE has successfully negotiated a sidebar agreement with the other PRPs to provide 25 percent of the cost for the removal action. EPA is currently reviewing the Removal Action Plan (RAP).

Remedial Design/ Remedial Action (RD/RA)

EPA has indicated the PRPs will have the opportunity to conduct the RD/RA if the PRPs can agree on a negotiated percentage of responsibility.

Ordnance Works Disposal Areas
Morgantown, West Virginia



Service:	Department of War
Size:	825 Acres
HRS Score:	35.62
Base Mission:	Ordnance Plant
IAG Status:	Not Applicable
Action Dates:	Placed on NPL June 6, 1986; RI/FS for OU 1 was completed January 1988; Second (revised) ROD for OU 1 was signed September 29, 1989; the RI/FS for OU 2 was started in August 1990
Contaminants:	PCBs, inorganics, carcinogenic polynuclear aromatic hydrocarbons, arsenic, mercury
DOD Funding to Date:	$266,000

Preliminary Assessment/ Site Inspection (PA/SI)

The ordnance plant was built by duPont in 1941 to initially produce ammonia by coking coal. The plant expanded throughout World War II until it was producing coke, crude tar, ammonia, methanol, hexamine, formaldehyde, light oils, and higher alcohols. The plant is separated into two OUs. OU #1 consists of the landfill and an adjoining lagoon area. The lagoon area was built after DoD disposed of the site. OU #2 covers the remainder of the plant. The focus of OU #2 will be the process areas. The portions of the site presently owned by General Electric, for their plastics intermediate plants, are not included in the study area. They are already involved in RCRA enforcement activities with EPA.

The site was sold in 1962 to Morgantown Community Association and immediately transferred to Morgantown Ordnance Works, Inc., which began salvage operations at the plant. Prior to the sale of the plant, DoD had leased the plant to several operators.

The major contaminants are polynuclear aromatic hydrocarbons, PCBs, arsenic, and mercury. The PCBs were at the drum staging area and were remedied in 1984. Catalyst pellets are prevalent at OU #1 and consist of non-leachable metals.

The potential receptors of principal concern are local business employees and visitors that might inhale contaminated dust/volatilized chemicals or otherwise be exposed to site-associated chemicals; and possible hot-spots located on OU #2 where exposure to site visitors might occur by the direct contact routes of incidental ingestion and dermal absorption. OU #1 is only expected to provide similar exposure pathways if the future use scenario is adopted. Construction activities at the landfill/former lagoon area is the future use scenario described in the RI/FS for OU #1.

Consent Orders have been issued on OU #1 by EPA. DoD was not named in the orders; however, DoD offered a percentage proposal to the other PRPs. The proposal is based on DoD's investigation of the site history. A contractor was selected, and at last discussion was awaiting approval by EPA. The funding for the RI/FS being performed by Radian Corporation on OU #2 was negotiated among the active PRPs, with DoD contributing 30.24 percent of the RI/FS cost.

Remedial Investigation/ Feasibility Study (RI/FS)

The RI/FS for OU #2 is being performed by Radian Corporation. The RI/FS for OU #1 was contracted by EPA and was completed in January 1988.

The RI/FS for OU #1 developed risk-based cleanup levels for arsenic, PAHs, PCBs, and mercury. Arsenic and PAHs above cleanup levels were detected in all test pits located in the landfill area, with higher concentrations in the upper portions of the landfill. PAHs were identified at concentrations that exceed the cleanup levels in an area

Ordnance Works Disposal Areas
Morgantown, West Virginia

(Continued)

of approximately 0.7 acres and to depths of six feet. Mercury was found in a water-filled trench located in the open alley way that splits the main process building, which is located in the processing area of OU #2.

Remedial Design/ Remedial Action (RD/RA)

The second (revised) ROD for OU #1 prescribes a preferred remedial action alternative and a contingency remedial action alternative. The preferred alternative includes installation of a RCRA Subtitle C cap on the landfill, excavation of inorganic hot-spots exceeding the risk-based cleanup levels, and solidifying and placing the excavated material in the landfill. An onsite bioremediation treatment bed will be used on excavated organic contaminated soils and sediments. Environmental and ground water monitoring also will be performed.

Should predesign studies show that treatment levels specified cannot be achieved in a reasonable timeframe, or the PRP group elects to perform the contingent remedial action alternative initially, the bioremediation treatment method will be revised to the contingent remedial action alternative of soil washing.

Olin Corporation has taken the lead of the OU #1 PRP committee, and has selected the predesign contractor, ABB Environmental Services, Inc. of Portland, ME. ABB was the runner-up in the selection of the OU #2 RI/FS by the OU #2 PRP committee.

Sangamo Electric Dump/Crab Orchard National Wildlife Refuge (USDOI)

Carterville, Illinois



Service:	Department of War
Size:	43,000 Acres
HRS Score:	43.70
Base Mission:	Ordnance manufacturing and loading
IAG Status:	Not Applicable
Action Dates:	Placed on NPL 1987; RODs signed for OU #1 and OU #2 1990; RI/FS initiated 1990 for OU #3; PRPs investigation initiated September 1990
Contaminants:	Organic solvents, inorganics, polynuclear aromatic hydrocarbons, munition residues
DOD Funding to Date:	$1.81 million

Preliminary Assessment/ Site Inspection (PA/SI)

The Illinois Ordnance Plant (IOP) was located on the eastern portion of the Crab Orchard National Wildlife Refuge (CONWR) and was operational from 1942 to 1945. The IOP served as a manufacturing/loading site for high-explosive shells, bombs, and other components. The site was proposed for inclusion to the NPL in 1984, and listed in 1987. Thirty-three areas have been identified for site investigation and have been divided into four OUs.

The PA at the Refuge was initiated by USACE in 1986 and limited to areas formerly associated with the IOP. The SI, which focused on 14 sites, was completed in April 1988. Results did not indicate widespread contamination at the site.

Remedial Investigation/ Feasibility Study (RI/FS)

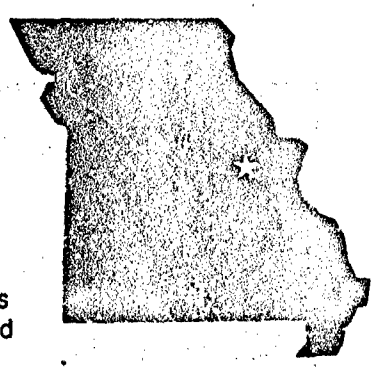
An RI/FS has been completed for the Metals OU and the PCB OU and RODs for both OUs have been issued. USACE awarded an RI contract to study the presence and magnitude of contamination at OU #3. Field work will be performed in April and May 1991 and will include installation of monitoring wells, soil borings, sediment sampling, and excavation of magnetic anomalies.

Additional remedial work may be required for all or part of the fourth OU.

Remedial Design/ Remedial Action (RD/RA)

Initiation of RD/RA work is pending completion of RI/FS activities.

Weldon Spring Ordnance Works
St. Charles County, Missouri



Service:	Army
Size:	15,577 Acres
HRS Score:	30.26
Base Mission:	Formerly used in support of the Ordnance Works Production Area (Bunkers, Mechanical Shop, and Housing)
IAG Status:	Pre-ROD IAG signed 1990
Action Dates:	PA/SI completed 1977; Listed on NPL 1990; RI/FS began 1990
Contaminants:	TNT, DNT, lead
DOD Funding to Date:	$2.2 million

Preliminary Assessment/ Site Inspection (PA/SI)

The Weldon Spring Ordnance Works is composed of two major components: the active portion is a 1,655-acre area where TNT and DNT were produced during World War II; the inactive portion is a 15,577-acre area that provided support facilities. Adjacent to the active site is the 230-acre former AEC facility, which processed uranium from 1957 to 1966. The AEC is located on an area that originally was part of several TNT production lines. As a result of an OMB decision and an MOU between the DA and DOE, the Army is funding DOE for part of the Chemical Plant remedial work. The direct ingestion of surface water by humans is not considered to be a source of exposure because the local residents do not use it for potable purposes or swimming. Consumption by game animals is a potential route of exposure. Consumption of fish is a potential medium for human exposure; however, the constituents of concern have very low bioconcentration factors and are not expected to bioconcentrate in aquatic organisms.

Remedial Investigation/ Feasibility Study (RI/FS)

The RI on the active portion of the site has been initiated and the report is in draft with addenda. A draft FS was submitted on July 25, 1990. Almost 8,000 surface soil samples were taken, 34 monitoring wells in 20 locations have been installed on WSTA and 14 additional wells outside WSTA, subsurface soil samples were taken at 41 locations, water samples were taken at 10 springs and 8 lakes, sediment samples from 3 lakes, soil vapor tests in 4 areas, and samples for asbestos were taken from 30 locations. The TNT pipeline location was checked with ground penetrating radar at 270 locations. Preliminary information on the pipeline was gathered from 24 locations. Excavations were made at 16 locations and samples taken from 12 excavations.

Nitroaromatics and volatile organics were detected in the ground water, nitroaromatics and lead were detected in the surface soil, and nitroaromatics were detected in the wooden pipeline. A ground rules committee has been established between USACE and DOE, and a TRC meeting was held on June 5, 1990 and chaired by Ft. Leonard Wood Chief of Staff. Members of the TRC include EPA, State of Missouri, Francis Howell School District, DOE, St. Charles Counties Against Hazardous Waste, Missouri Research Park, Village of Weldon Spring Heights, and the St. Charles Emergency Management Association. The $1.1 million RI/FS for the FUDS portion of the NPL site was initiated in 1990.

Remedial Design/ Remedial Action (RD/RA)

RD/RA work will begin after completion of RI/FS activities.

List of Acronyms

AAP	Army Ammunition Plant
ADA	Army Depot Activity
AEC	Atomic Energy Commission
AFB	Air Force Base
AFRB	Air Force Reserve Base
AIMD	Aircraft Intermediate Maintenance Department
ANG	Air National Guard
ATSDR	Agency for Toxic Substance and Disease Registry
AWQC	Ambient Water Quality Criteria
BDDR	Building Demolition and Debris Removal
CA	Cooperative Agreement
CB	Construction Battalion
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFC	Chlorofluorocarbon
DA	Department of the Army
DCE	Dichloroethylene
DER	Department of Environmental Resources
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program
DGSC	Defense General Supply Center
DLA	Defense Logistics Agency
DoD	Department of Defense
DOE	Department of Energy
DOI	Department of the Interior
DPM	Defense Priority Model
DRMO	Defense Reutilization and Marketing Office
DSMOA	Defense and State Memorandum of Agreement
EE/CA	Engineering Evaluation/Cost Analysis
EOD	Explosives Ordnance Disposal
EPA	Environmental Protection Agency
FFA	Federal Facilities Agreement
FFS	Focused Feasibility Study
FS	Feasibility Study
FUDS	Formerly Used Defense Sites
FY	Fiscal Year
GAC	Granulated Activated Carbon
GOCO	Government Owned/Contractor Operator
GPM	Gallons per Minute
GWTP	Ground Water Treatment Plant
HAZMIN	Hazardous Waste Minimization
HRS	Hazard Ranking System
HSWWA	Hazardous and Solid Waste Amendment
HTW	Hazardous or Toxic Waste
IAG	Interagency Agreement
IAS	Installation Assessment Study
IRA	Interim Remedial Action
IRP	Installation Restoration Program
IRTCG	Installation Restoration Technology Coordinating Group
MCL	Maximum Contaminant Level

List of Acronyms

MEK	Methyl Ethyl Ketone
NADC	Naval Air Development Center
NAEC	Naval Air Engineering Center
NAS	Naval Air Station
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NETC	Naval Education & Training Center
NFRAP	No Further Response Action is Planned
NIROP	Naval Industrial Reserve Ordnance Plant
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NUWES	Naval Undersea Warfare Engineering Station
NWS	Naval Weapons Station
OEW	Ordnance and Explosive Waste
OHW	Other Hazardous Waste
OMB	Office of Management and Budget
OU	Operable Unit
PA	Preliminary Assessment
PAH	Polynuclear Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PCE	Perchloroethylene
PDO	Property Disposal Office
PPB	Parts per Billion
PPM	Parts per Million
PRP	Potentially Responsible Party
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act of 1976
RD	Remedial Design
RD&D	Research, Development and Demonstration
RFA	RCRA Facility Assessment
RFI	Remedial Feasibility Investigation (RCRA Facility Investigation)
RI	Remedial Investigation
ROD	Record of Decision
RR	Rapid Response
SAC	Strategic Air Command
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SI	Site Inspection
SWMU	Solid Waste Management Unit
TCA	Trichloroethane
TCE	Trichloroethene
TNT	Trinitrotoluene
TRC	Technical Review Committee
USACE	United States Army Corps of Engineers
USATHAMA	United States Army Toxic and Hazardous Materials Agency
USGS	U.S. Geological Survey
UST	Underground Storage Tank
UXO	Unexploded Ordnance
VOC	Volatile Organic Compound