

Appendix F:

References



This appendix provides reference tools to help readers understand the material in this report. Terms and acronyms used in the report are defined. Information on the types and number of sites at the Department of Defense (DoD) installations provides readers with insight into past site operations and history. Contact information and Web site addresses will help readers obtain information beyond the scope of this report. Reference sections are —

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SITE TYPES—DEFINITIONS



Site Category	Site Type	Site Description*	Primary Contaminants**
Base Operations/ Engineered Structures	Building Demolition/ Debris Removal	Building demolition/debris removal sites consist of buildings and/or debris that are unsafe and/or must be removed.	Asbestos, Lead paint, Construction debris, Solvents
	Contaminated Building	Contaminated building sites result when substances contained within a building are released, resulting in contamination in and around the building.	POLs, Asbestos, Solvents, Plating waste, PCBs, Acids, Metals, Propellants, POL sludge, Pesticides
	Dip Tank	Dip tanks typically are metal or concrete units located in coating shops. They range in size from 50 gallons to more than 500 gallons. The tanks are used to clean parts before treatment or to coat parts with various materials, including metals and plastics.	POLs, Metals, Acids, Chlorinated solvents
	Incinerator	Incinerators typically consist of a furnace and stack unit used for a variety of disposal activities, including the incineration of medical waste or of an installation's dunnage. These units vary in size and may be either freestanding or part of other operations, such as hospitals.	Ash, Metals, Ordnance compounds
	Maintenance Yard	Maintenance yards consist of paved or unpaved areas where vehicles and other maintenance equipment are stored and often serviced. Typically, maintenance supplies are stored at these units.	POLs, Solvents, Metals
	Oil/Water Separator	Oil/water separators typically are small units that skim oil from stormwater runoff. The oil/water separator site consists of the unit and any associated piping.	POLs, Industrial wastewater, Solvents, PCBs

*The site descriptions provided in this table are not intended to be all-encompassing or exact regulatory definitions. They provide only general descriptions of the different categories of DERP sites.

**Examples of petroleum, oil, and lubricants (POLs) include heating, oil, jet fuel, gasoline, and other fuels; examples of solvents include include spent paint thinners and degreasing agents.

Site Category	Site Type	Site Description*	Primary Contaminants**
Engineered Structures	Storage Area	Storage area sites are areas where spills and leaks from stored containers or equipment have occurred.	POLs, Metals, POL sludge, Solvents, Acids, PCBs
	Washrack	Washrack sites typically consist of a building designed for washing vehicles, such as tanks, aircraft, and other military vehicles. This unit also may consist of a paved area where vehicles are washed.	POLs
Storage Tanks	Aboveground Storage Tank	Aboveground storage tank sites result from release of substances to surrounding areas from aboveground tanks, containers, and associated piping.	POLs, POL sludge
	POL Lines	POL distribution lines are used to transport petroleum, oil, and lubricant products from storage to dispensing facilities.	POLs, POL sludge
	Underground Storage Tank	Underground storage tank sites result from the release of substances from underground storage tanks or from piping associated with the tanks.	POLs, Solvents, POL sludge, Metals
	Underground Storage Tank Farm	Underground storage tank farm sites result from the release of substances from the multiple, generally large, underground storage tanks and associated piping that make up a tank farm complex.	POLs, Metals, POL sludge, Solvents
Industrial Operations	Optical Shop	Optical shops typically consist of laboratory units located within a building. Activities include grinding lenses used in eye glasses or other optical instruments.	Solvents
	Pesticide Shop	Pesticide shops typically are used to store and prepare large volumes of pesticides and solvents for maintenance activities. The units may be located in a freestanding building or may be attached to another building. Areas near the unit may have been used for the disposal of off-specification pesticides.	Pesticides, Metals, POLs
	Plating Shop	Plating shops typically consist of a building, or a room within a building, used for coating metal parts. The unit contains several tanks of solvents that are used in the plating process.	Metals, Industrial, Solvents, wastewater, Acids

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Industrial Operations	Sewage Treatment Plant	Sewage treatment plants typically consist of a complex of tanks, piping, and sludge management areas used to treat sanitary sewage generated at an installation. The unit may use chemical or biological treatment methods. Lagoons associated with the biological treatment of sewage may be considered separate units.	Metals, Industrial wastewater, Solvents, POLs
	Waste Lines	Waste lines are underground piping used to carry industrial wastes from shop facilities to a wastewater treatment plant.	Solvents, Explosive chemicals, Plating sludge, Pesticides, Metals
	Wastewater Treatment Plant	Waste treatment plant sites result from releases of substances at plants that were used to treat and dispose of domestic and/or industrial wastes.	POLs, Industrial wastewater, Solvents, Explosive chemicals, Plating sludge
Training Areas	Burn Area	Burn area sites consist of pits or surface areas that were used for open-air incineration of waste.	Explosives, POLs, Propellants, Ordnance, Solvents
	Explosive Ordnance Disposal Area	Ordnance disposal areas consist of open-air areas that were used for detonation, demilitarization, burial, or disposal of explosives.	UXO, Explosive chemicals, Metals, Ordnance compounds
	Fire/Crash Training Area	Fire/crash rescue training areas consist of trenches and/or pits where flammable materials were ignited periodically for demonstrations and training exercises.	POLs, POL sludges, Solvents, Metals
	Firing Range	Firing ranges consist of large areas of land used for practice firing large artillery or mortars or as a practice bombing range for aircraft. These areas typically are contaminated with unexploded ordnance, which may be found both on and below the ground surface.	Metals, Radionuclides, Explosives, Ordnance compounds, UXO
	Pistol Range	Pistol ranges may be located indoors or outdoors and are used for target practice. Outdoor units include a soil or sandbag berm located behind the targets to prevent bullets from traveling outside the range area.	Metals
	Small Arms Range	Small arms ranges typically are located outdoors and are used for target practice with small arms, usually 50 caliber or less. The unit may include a soil or sandbag berm or a hill located behind the targets to prevent bullets from traveling outside the range area.	Metals, Ordnance compounds
	Unexploded Munitions/ Ordnance Areas	Unexploded munitions/ordnance areas are areas that have been used for munition and ordnance training.	UXO, Explosive chemicals, Metals, Ordnance compounds

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Site Category	Site Type	Site Description*	Primary Contaminants**
Radioactive Areas	Mixed Waste Area	Mixed waste areas are used to store or dispose of hazardous wastes that have been mixed with or contaminated by radioisotopes.	Solvents, Mixed waste
	Radioactive Waste Area	Radioactive waste areas are used to store or dispose of low-level radioactive materials of various types (for example, radium paint and radioactive instruments and propellants).	Low-level radioactive waste
Surface Discharge Areas	Drainage Ditch	Drainage ditch units typically consist of a natural or man-made ditch used as a runoff control structure for rainfall. The unit also may be used for runoff from other sources, such as process operations. Man-made units may be concrete lined.	POLs, Metals, Solvents, Explosive chemicals, PCBs
	Industrial Discharge	Industrial discharge units consist of a pipe system used to discharge industrial effluent to the environment. The unit may discharge to a natural or man-made water body, a dry creek bed, or other natural feature.	Metals, Industrial wastewater
	Sewage Effluent Settling Pond	Sewage effluent settling ponds consist of a lagoon, or lagoons, used for settling solids and/or for biological treatment of sewage. The units also may be used as infiltration galleries.	Metals, Ordnance compounds, Solvents
	Spill Site Area	Spill site areas are small areas where spills from drums, tanks, or other waste storage units have taken place.	POLs, Metals, Solvents, Acids, Paint, PCBs, Pesticides
	Storm Drain	Storm drains typically consist of a natural or man-made drain used as a runoff control structure for rainfall. The unit also may be used for runoff from other sources, such as process operations. Man-made units may be concrete lined.	POLs, Pesticides, Metals, Industrial wastewater, POL sludge, Solvents
	Surface Disposal Area	Surface disposal area sites consist of small areas formerly used for disposal of solid wastes with little or no free liquids. Typical materials include rags, filters, paint cans, small capacitors, and batteries.	POLs, Solvents, Metals, Explosive chemicals
	Surface Impoundment/Lagoon	Surface impoundments/lagoons are unlined depressions, excavations, or diked areas that were used to accumulate liquid waste, waste containing free liquid, or industrial wastewater.	POLs, Industrial wastewater, Solvents, Ordnance compounds, Metals, Explosive chemicals
	Surface Runoff	Surface runoff sites are areas that typically experience sheet runoff from rain. The runoff may contain contaminants.	POLs, Metals, Solvents, POL sludge, PCBs,

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Site Category	Site Type	Site Description*	Primary Contaminants**
Subsurface Disposal Area	Chemical Disposal	Chemical disposal units are areas that have been used for the disposal of chemicals, typically of an unknown type. The unit may be a burial area where bottles or packages of chemicals were placed or an area where liquids were disposed of on the soil.	Unknown contaminants
	Disposal Pit/Dry Well	Disposal pit/dry well sites consist of small, unlined excavations and structures that were used over a period of time for disposing of small quantities of liquid wastes.	POLs, Explosive chemicals, Metals, Ordnance compounds, Solvents, Acids
	Landfill	Landfill sites typically are areas formerly used for disposing of both domestic and industrial hazardous waste.	POLs, Pesticides, Solvents, Metals, Paint, Ordnance compounds
	Leach Field	Leach fields typically consist of a subsurface area generally associated with septic tanks. The unit serves the purpose of biologically treating sanitary sewage; however, in cases where these units were used at industrial facilities, there is also contamination from non-biodegradable industrial contaminants.	Metals, Solvents
Contaminated Media	Contaminated Fill	Contaminated fill areas consist of contaminated fill resulting from excavations for construction, tanks, and other purposes.	POLs, Explosive chemicals, Metals, Ordnance compounds, Paint waste
	Contaminated Groundwater	Contaminated groundwater results from various types of releases of known or unknown origin, such as migration of leachate from disposal areas and migration of substances from contaminated surface and subsurface soil.	Metals, Nonchlorinated solvents, Chlorinated, POLs, Explosive chemicals, solvents
	Contaminated Sediments	Contaminated sediments include sediments of bodies of water that have been contaminated by surface runoff, subsurface migration, or direct discharge of contaminants.	POLs, Metals, PCBs, Solvents, Explosive chemicals, Pesticides
	Contaminated Soil Pile	Contaminated soil piles consist of soil that has been staged after an excavation activity.	POLs, Solvents, Sludge, PCBs, Ordnance compounds, Metals
	Soil Contaminated After Tank Removal before treatment.	Soil contaminated after tank removal consists of soil that has been removed during a tank removal operation and staged	POLs, POL sludge

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SITE TYPES—COUNTS



	Site Type Categories	Army		Navy		Air Force		DLA		DTRA		FUDS	
		Total Sites	Sites in Progress										
Base Operations/ Engineered Structures	Building Demolition/Debris Removal	28	3	24	10	35	25	0	0	0	0	442	105
	Contaminated Buildings	723	55	61	24	59	10	56	1	0	0	39	12
	Dip Tank	44	3	5	3	5	0	1	0	0	0	0	0
	Incinerator	107	15	19	5	11	4	4	0	0	0	7	4
	Maintenance Yard	135	19	56	29	38	19	2	0	0	0	2	2
	Oil/Water Separator	419	7	45	8	112	27	2	0	0	0	1	0
	Storage Area	2,806	124	586	130	247	83	92	20	0	0	68	19
	Washrack	198	18	12	2	30	17	1	0	0	0	2	2
Total	4,460	244	808	211	537	185	158	21	0	0	561	144	
Storage Tanks	Above Ground Storage Tank	331	16	89	45	94	34	9	0	0	0	127	52
	POL (Petroleum/Oil/Lubricants) Lines	34	12	78	33	109	64	10	2	0	0	31	8
	Underground Storage Tanks	1,330	53	783	187	1,069	314	64	8	0	0	842	261
	Underground Tank Farm	84	13	91	44	28	15	1	0	0	0	29	6
Total	1,779	94	1,041	309	1,300	427	84	10	0	0	1,029	327	
Industrial Operations	Optical Shop	2	0	0	0	0	0	0	0	0	0	1	1
	Pesticide Shop	50	5	17	7	15	7	4	0	0	0	0	0
	Plating Shop	8	1	17	9	3	2	0	0	0	0	2	1
	Sewage Treatment Plant	73	7	12	1	47	28	1	0	0	0	6	3
	Waste Lines	142	12	71	27	38	21	3	0	0	0	6	4
	Waste Treatment Plant	235	23	40	10	56	27	0	0	0	0	6	5
Total	510	48	157	54	159	85	8	0	0	0	21	14	

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Site Type Categories	Army		Navy		Air Force		DLA		DTRA		FUDS		
	Total Sites	Sites in Progress	Total Sites	Sites in Progress	Total Sites	Sites in Progress	Total Sites	Sites in Progress	Total Sites	Sites in Progress	Total Sites	Sites in Progress	
Training Areas	Burn Area	240	78	70	22	36	16	13	2	1	1	26	19
	Explosive Ordnance Disposal Area	183	49	75	41	29	11	0	0	0	0	110	78
	Fire/Crash Training Area	95	26	130	48	345	160	3	0	0	0	12	7
	Firing Range	220	134	19	4	21	12	0	0	0	0	115	86
	Pistol Range	26	11	12	4	6	4	3	0	0	0	3	2
	Small Arms Range	217	147	20	14	20	8	0	0	0	0	52	18
	Unexploded Munitions and Ordnance Area	270	100	66	35	33	18	0	0	0	0	1,401	728
Total	1,251	545	392	168	490	229	19	2	1	1	1,719	938	
Radioactive Areas	Mixed Waste Area	30	5	46	17	28	18	2	0	0	0	13	8
	Radioactive Waste Area	38	5	10	1	98	32	0	0	0	0	11	4
	Total	68	10	56	18	126	50	2	0	0	0	24	12
Surface Discharge Areas	Drainage Ditch	41	15	27	11	39	20	4	1	0	0	2	1
	Industrial Discharge	147	81	21	10	21	15	0	0	1	0	3	3
	Sewage Effluent Settling Ponds	15	1	3	1	8	2	0	0	0	0	3	2
	Spill Site Area	757	108	440	117	1,720	755	42	6	0	0	18	10
	Storm Drain	23	2	17	11	100	73	5	0	0	0	3	2
	Surface Disposal Area	585	77	700	199	516	241	13	4	0	0	43	20
	Surface Impoundment/Lagoon	293	80	100	28	44	21	10	3	0	0	28	13
	Surface Runoff	52	4	12	0	13	8	1	1	0	0	4	1
Total	1,913	368	1,320	377	2,461	1,135	75	15	1	0	104	52	
Subsurface Disposal Area	Chemical Disposal	84	46	8	7	52	18	0	0	0	0	22	8
	Disposal Pit and Dry Well	358	68	146	47	576	212	44	23	0	0	24	13
	Landfill	924	241	432	184	869	395	15	7	0	0	121	67
	Leach Field	59	10	11	7	21	9	0	0	0	0	1	0
Total	1,425	365	597	245	1,518	634	59	30	0	0	168	88	

	Site Type Categories	Army		Navy		Air Force		DLA		DTRA		FUDS	
		Total Sites	Sites in Progress										
Contaminated Media	Contaminated Fill	67	15	36	12	16	4	79	1	0	0	124	67
	Contaminated Ground Water	216	120	123	61	72	56	15	14	0	0	272	168
	Contaminated Sediments	152	33	124	50	39	18	14	0	0	0	76	40
	Contaminated Soil Piles	46	12	16	5	16	6	1	0	0	0	30	14
	Soil Contamination After Tank Removal	74	9	10	7	20	9	23	5	0	0	110	43
	Total	555	189	309	135	163	93	132	20	0	0	612	332
Other	Other	836	9	60	18	0	0	16	2	0	0	659	366
	Total	836	9	60	18	0	0	16	2	0	0	659	366

GLOSSARY



- Administrative Record** Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires establishment of an administrative record, which is a compilation of decision documents and supporting materials that together form the basis for the selection of a response action. The administrative record should include all the final documents that are a part of the decision-making process.
- Air Sparging** A remedial process in which pressurized air is injected below the groundwater table for removal of contaminants through volatilization.
- Applicable or Relevant and Appropriate Documents (ARARS)** Other laws and requirements that must be met in complying with CERCLA. ARARs include cleanup standards, standards of control, and other substantive environmental protection criteria for hazardous substances, as specified by federal and state law and regulations.
- Base Realignment and Closure (BRAC)** A Department of Defense (DoD) program that focuses on compliance and cleanup efforts at military installations undergoing closure or realignment, as authorized by Congress in four rounds of base closures for 1988, 1991, 1993, and 1995. The first BRAC round was conducted in 1988 based on recommendations by the Defense Secretary's Commission on Base Realignment and Closure. Congress enacted the Defense Base Closure and Realignment Act of 1990 to authorize base closure rounds in 1991, 1993, and 1995. The Defense Environmental Restoration Program (DERP) goal within the BRAC program is to conduct environmental remediation as efficiently as possible to expedite the transfer and reuse property by the community.
- Bioslurping** A process used to extract free-phase fuel from groundwater. The bioslurper uses a vacuum to draw petroleum to a well, then "slurps" the petroleum from the top of the groundwater. The vacuum action also draws air into the soil, which promotes microbial biodegradation. Bioslurping removes the contamination source and cleans up the contaminated soil as well.
- Bioventing** A process by which oxygen is delivered to contaminated unsaturated soil by forced air movement (extraction or injection) to stimulate biodegradation by increasing oxygen concentrations.
- BRAC Cleanup Plan (BCP)** A plan developed by a closing or realigning installation's cleanup team to map the restoration work needed to make property available for transfer, including MMRP requirements. The BCP includes schedules and estimated costs for the environmental restoration work needed to support the transfer and reuse of property at an installation.
- BRAC Cleanup Team (BCT)** A group composed of the DoD BRAC Environmental Coordinator, the U.S. Environmental Protection Agency, and state remedial project managers that coordinates cleanup at BRAC installations. The BCT is the primary forum for addressing issues that affect the execution of cleanup to facilitate reuse. The purpose of the BCT is to adopt a common-sense approach to environmental cleanup by developing common goals and then make decisions and set priorities based on these goals.

- Characterization** Facility or site sampling, monitoring, and analysis to determine the extent and nature of a contaminant release. Site characterization is the first step in acquiring the necessary technical information to develop, screen, analyze, and select appropriate cleanup techniques.
- Chemical Residues from Military Munitions processes** The chemical constituents of a military munition, including the chemical byproducts of detonation, deflagration, or other reactive Examples include such constituents as unconsumed explosives (even in trace concentrations) from the detonation of a military munition, explosives released by the structural compromise of an unfired waste military munition, and chemical agents released from chemical munitions.
- Clean Air Act (CAA)** The CAA's purpose is to "protect and enhance the quality of the Nation's air resources." Its primary programs regulate the release of contaminants to air from new and existing polluting facilities.
- Cleanup** The act of constructing and implementing interim removal and remedial activities and a final remedy.
- Clean Water Act (CWA)** The CWA established the basic structure for regulating discharges of pollutants into the waters of the United States. CWA's objective is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." One of the act's major enforcement tools is the National Pollutant Discharge Elimination System permit.
- Closed Range** A military range that has been taken out of service as a range and that either has been put to new uses that are incompatible with range activities or is not considered by the military to be a potential range area. A closed range is still under the control of a Component.
- Closure Plan** Documentation prepared under Resource Conservation and Recovery Act (RCRA) to guide the deactivation, stabilization, and surveillance of a waste management unit or facility.
- Community Environmental Response Facilitation Act of 1992 (CERFA)** Law requiring the federal government to identify, for each facility, real property that is not contaminated and that offers the greatest opportunity for expedited reuse and redevelopment by the community. Real property identified under CERFA must be free of hazardous substances and petroleum products, or the remediation of contamination by such substances should be expedited to facilitate transfer of the property to the public.
- Community Redevelopment** These community-prepared plans identify the desired and anticipated reuse of excess installation property. The plans help direct environmental restoration efforts in areas with the greatest potential for reuse and for providing economic benefit to the community.
- Community Relations Plan (CRP)** The plan for community relations activities that will be used to meet stated objectives at an installation. A CRP must be developed and implemented for all removal actions and remedial actions at Installation Restoration program sites, except emergency responses.

- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)** A federal statute that establishes a comprehensive framework for identifying, investigating, and cleaning up past releases of hazardous substances to the environment. It provides the statutory authority for cleanup of hazardous substances that could endanger public health, public welfare, or the environment.
- Corrective Action Plan** A plan that describes and explains the remedial measures to be taken at a leaking underground storage tanks (UST) site.
- Corrective Measures Implementation** The RCRA corrective action phase in which the selected cleanup technology is constructed, installed, implemented, and/or operated until confirmatory sampling and analysis indicate that cleanup levels have been reached. Similar to a CERCLA remedial action.
- Corrective Measures Study** A RCRA corrective action phase in which alternative cleanup technologies are evaluated in relation to specific site characteristics, such as contaminants, soil conditions, and hydrogeologic conditions. Similar to a CERCLA remedial investigation.
- Defense Site Environmental Restoration Tracking System** A database system used by the Army to track environmental restoration activities at active, closing, and realigning installations. The system collects and maintains site-related information about environmental restoration and provides reports that detail information at the DoD Component level.
- Decision Document** The Department of Defense has adopted the term Decision Document for the documentation of removal or interim remedial action (IRA) and remedial action (RA) decisions at non-National Priorities List (NPL) installations, and sites at NPL installations at which removal or IRA decisions have been made. The decision document shall address the following: Purpose, Site Risk, Remedial Alternatives, Public/Community Involvement, Declaration, and Approval and Signature. A Decision Document for sites not covered by an interagency agreement or federal facility agreement is still required to follow a CERCLA response. All Decision Documents will be maintained in the installation Administrative Record and the installation's permanent environmental restoration files.
- Environmental Baseline Survey (EBS)** Survey identifying real and excess property that can be considered uncontaminated as defined by CERFA. In addition to documenting uncontaminated property, the EBS numerically describes the environmental condition of the remaining property according to its status in the restoration process. The EBS is based on CERFA requirements, and is used to identify property available for transfer to the community.
- Explosive Compound** A substance that is composed of one or more chemical in definitely proportion and weight that undergoes a rapid chemical changed on being heated or struck. As used in the phrase "explosive compounds released to soil, surface water, sediments, or groundwater as a result of ammunition or explosives production or manufacturing at ammunition plants," explosives compounds such as the trinitrotoluene found in "red water" or "pink water" from TNT manufacturing.

- Facility (in relation to classification)** A building, structure, or other improvement to real property. (10 USC §2801)
- Feasibility Study (FS)** A step in the CERCLA environmental restoration process. The objectives of the FS are to identify alternatives for remediation and to select and describe a remedial action that satisfies the ARARs for mitigating confirmed environmental contamination. Successful completion of the FS should lead to unimpeded development of a remedial design for implementation of the selected remedial actions.
- Federal Facility Agreement (FFA)** A legal agreement between DoD and U.S. Environmental Protection Agency concerning the cleanup of sites on the National Priorities List. This agreement is intended to establish roles, responsibilities, and schedules and to improve communications among all parties. An FFA becomes an interagency agreement when the statutory requirements are incorporated into the document.
- Finding of Suitability for Early Transfer (FOSET)** The process that documents the determination that property is environmentally suitable for early transfer by deed for an intended use. The FOSET also identifies any applicable restrictions on future use and provides a statement of the notice, covenant, and access requirements under CERCLA §120(h)(3)(C).
- Finding of Suitability to Lease (FOSL)** The process that documents the determination that BRAC property can be leased, even while cleanup is under way. The FOSL also identifies any applicable restrictions that must accompany the lease and provides a statement of notice and access requirements under CERCLA and other lease restrictions, as appropriate.
- Finding of Suitability to Transfer (FOST)** The process that documents the determination that BRAC property is environmentally suitable for transfer by deed for an intended use. The FOST also identifies any applicable restrictions on future use and provides a statement of the notice, covenant, and access requirements under CERCLA.
- Five-Year Review** If waste is left in place at a site, a review of the remedial action under CERCLA that must take place at least every five years after the remedial action is initiated to verify the effectiveness of the remedy.
- Formerly Used Defense Sites Program (FUDS)** FUDS are properties (1) that DoD or one of its Components formerly owned or leased and (2) on which DoD is responsible for cleaning up any contamination. The FUDS program is implemented by the U.S. Army Corps of Engineers. The remediation process at FUDS parallels the installation environmental restoration process.
- Groundwater Remediation** Treatment of groundwater to remove pollutants.
- Hazardous and Solid Waste Amendments (HSWA)** HSWA refers to the 1984 amendments to RCRA, providing authority for the investigation and cleanup of waste sites, creating a corrective action program for cleanup substantially similar to that under CERCLA, although some of the requirements are different. HSWA also created the Underground Storage Tank Program.

- Hazardous Waste** As defined in RCRA, a solid waste or a combination of solid wastes that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or pose a substantial present or potential hazard to human health or the environment if improperly treated, stored, transported, disposed of, or otherwise managed.
- Information Repository** An installation's repository for copies of Environmental Restoration program (ERP) items that are made available to the public, including brochures, fact sheets, press releases, documents in the administrative record, information on the ERP, and the applicable laws. The repository should be available to the public during removal actions and remedial actions at hazardous waste sites and should be located at or near the site of the response action.
- Initial Site Characterization** A term used under the RCRA UST program to describe the collection of site information, such as the nature and estimated quantity of contaminant releases; surrounding populations; water quality, use, and well locations; stormwater and wastewater systems; climatology; land use; results of the site check and initial abatement measures; and results of any free-product removals. Similar to a CERCLA preliminary assessment, the site characterization should be performed after the discovery of a release from a UST.
- Installation Restoration Program (IRP)** Program designed to clean up contamination associated with DoD facilities. Includes identification, investigation, and cleanup of hazardous substances, pollutants, and contaminants as defined by CERCLA; DoD-unique materials; and petroleum/oil/lubricants contamination at operating and closing or realigning installations (including off-installation areas to which contamination has migrated) and at FUDS.
- Interagency Agreement (IAG)** A formal document in which two or more federal agencies agree to cooperate. For any installation listed on the National Priorities List, the Component must enter into an IAG within 180 days of the required U.S. EPA review of the remedial investigation and feasibility study. This IAG must identify all remedial actions required at the site.
- Interim Action** An early measure to reduce the risk of releases of hazardous substances before the initiation of more complicated, comprehensive, and long-term cleanup remedies. Examples of interim actions are placing fences around contaminated areas and removing and treating or disposing of contaminated soil. This report uses the term interim action to refer to both interim remedial actions and removal actions.
- Interim Remedial Action (IRA)** An interim measure that can be implemented at any time in the restoration process and that is designed to abate contamination until the final remedial action can be implemented.
- Investigation** Analysis used to characterize the nature, extent, and risk of releases of hazardous substances into the environment and to develop and select a cleanup remedy.

- Land Use Controls (LUCs)** Physical, legal, or administrative mechanisms that restrict or limit access to contaminated property in order to reduce risk to human health and the environment. Physical mechanisms encompass a variety of engineered remedies to contain or reduce contamination and/or physical barriers to limit access to property, such as fences or signs. The legal mechanisms are generally the same as those used for institution controls (ICs) as discussed in the National Contingency Plan. ICs are a subset of LUCs and are primarily legal mechanisms imposed to ensure the continued effectiveness of land use restrictions imposed as part of a remedial decision. Legal mechanisms include restrictive covenants, negative easements, equitable servitudes, and deed notices. Administrative mechanisms include notices, adopted local land use plans and ordinances, construction permitting, or other existing land use management systems that may be used to ensure compliance with use restrictions. Examples include posting signs or constructing fences around contaminated areas and restricting incompatible land uses through restrictive covenants.
- Land Reuse Plan** A plan that identifies the proposed land use for given portions of surplus DoD property.
- Liability** A probable and measurable outflow of resources arising from past transactions or events.
- Local Redevelopment Authority** Any authority or instrumentality established by a state or local government and recognized by the Secretary of Defense, through the Office of Economic Adjustment, as the entity responsible for developing the redevelopment plan with respect to an installation, or for directing implementation of the plan.
- Long-Term Management (LTM)**..... Term used for environmental monitoring, review of site conditions, and/or maintenance of a remedial action to ensure continued protection as designed once a site achieves response complete (RC). Examples of LTM include landfill cap maintenance, leachate disposal, fence monitoring and repair, five-year review execution, and land use control enforcement actions. This term should be used until no further environmental restoration response actions are appropriate or anticipated. LTM is reserved for monitoring once a site achieves RC, and should not be used to refer to monitoring after Remedy in Place (this includes sites for which the selected remedy is natural attenuation).
- Long-Term Monitoring**..... Comprehensive evaluation of a site or sites through physical and/or electronic sampling and analysis to demonstrate that a particular remedial action has worked or is continuing to work or to show a continual low concentration of contaminants that does not require remedial action.
- Management Action Plan (MAP)**..... A planning document for managing environmental restoration program requirements, including installation restoration, military munitions response, and building demolition/debris removal at an active installation or FUDS property. MAPs describe an integrated, coordinated approach to achieving the installation's or property's overall environmental restoration goals and serve as the basis for program planning, budget development, and execution decisions. In addition, the MAP is used to identify and monitor site-level environmental restoration requirements, schedules, and estimates of cost, and serves as a communication tool with stakeholders on the installation's or property's environmental restoration program.
- Maximum Contaminant Level** Concentration limits established by the Safe Drinking Water Act for certain elements and pollutants that may occur in drinking water.

- Military Installation** A base, camp, post, station, yard, center, or other activity under the jurisdiction of the Secretary of a Military Department. (10 USC §2801)
- Military Munitions** All ammunition products and components produced or used by or for the U.S. Department of Defense (DoD) or the U.S. Armed Services for national defense and security, including military munitions under the control of the DoD, the U.S. Coast Guard, the U.S. Department of Energy (DOE), and National Guard personnel. The term military munitions includes confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes and incendiaries used by Components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components thereof. Military munitions do not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components thereof. The term, however, does include non-nuclear components of nuclear devices, managed under DOE's nuclear weapons program, after all required sanitization operations under the Atomic Energy Act of 1954, as amended, have been completed.
- Military Range** A designated land or water area set aside, managed, and used to conduct research on, develop, test, and evaluate military munitions and explosives, other ordnance or weapon systems, or to train military personnel in their use and handling. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas. Military ranges also include bodies of water located within the boundaries of a military range (e.g., a stream, lake, or pond) or that are themselves a range (e.g., an offshore range in the Atlantic or Pacific Ocean). Such water areas include all waters of the U.S. (as defined under the Clean Water Act) and those ocean waters extending out to 200 nautical miles from the U.S. coast. A military range may be a single site, or may comprise several sites.
- National Contingency Plan (NCP)** The National Oil and Hazardous Substances Pollution Contingency Plan, commonly referred to as the NCP, is a set of regulations describing the procedures that lead agencies must follow when implementing CERCLA and the Federal Water Pollution Control Act.
- National Environmental Policy Act (NEPA) Analysis** An analysis conducted to evaluate an installation's disposal decisions in terms of their environmental impact. The NEPA analysis is useful to the community's planning efforts and the installation's property disposal decisions. It is used to support DoD decisions on transferring property for community reuse.
- National Priorities List (NPL)** A formal list of the nation's highest risk hazardous waste sites, as established by CERCLA.
- Natural Attenuation** A passive remedial approach that depends on natural processes to degrade and dissipate contaminants in soil and groundwater. Processes involved in natural attenuation include aerobic and anaerobic biodegradation, dispersion, volatilization, and adsorption. Natural attenuation is also known as passive bioremediation, intrinsic bioremediation, or intrinsic remediation.
- No DoD Action Indicated** A FUDS Program classification where it is determined that a site poses no threat to human health or safety or the environment and no additional environmental restoration activities are required.

- No Further Action (NFA)** Phrase applying to any site where risks due to contamination no longer exist and where no additional remedial action is required.
- No Further Remedial Action Planned** Phrase referring to sites at which no further site evaluation is warranted, according to U.S. EPA or the governing authority.
- Not Evaluated** A relative-risk evaluation category. Sites lacking sufficient information for a relative-risk site evaluation.
- Not Required (NR)** A relative-risk evaluation category. Sites that have remedy in place, response complete, or no-further-action-required designations do not require relative-risk evaluation. These sites are categorized as not required.
- Off-Base Contamination** Contaminants found to be migrating off the installation or coming onto the installation from off-base sources.
- Operable Unit (OU)** An OU is a discrete part of a response action, such as groundwater cleanup or removal of contaminated soil. The cleanup of a site can be divided into a number of operable units depending on the complexity of the problems associated with the site.
- Operational Range** A military range that is currently in service and is being regularly used for range activities, or a military range that is not currently being used, but that is still considered by the Military to be a potential range area, and that has not been put to a new use that is incompatible with range activities.
- Pollutant and Contaminant** These terms include, but are not be limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring; except that the term pollutant or contaminant shall not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of paragraph (14) of the DERP Management Guidance and shall not include natural gas, liquefied natural gas, or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas).
- Preliminary Assessment (PA)** The PA is a limited-scope investigation designed to distinguish sites that pose little or no threat to human health and the environment from sites that require further investigation. The PA typically is based on installation records searches, visual site inspections, and interviews with personnel. The PA formerly was referred to as an initial assessment study.
- RCRA Corrective Action** The RCRA corrective action program is a cleanup program designed to ensure the remediation of hazardous releases associated with RCRA-regulated facilities. The program is enforced principally through the statutory authorities established by the Hazardous and Solid Waste Amendments of 1984 and is similar to CERCLA's cleanup process in the NCP.
- RCRA Facility Assessment Program** Initial RCRA process for determining whether corrective action is warranted for a RCRA past practice or for defining what additional data must be gathered to make this determination. Similar to a CERCLA preliminary assessment.
- RCRA Facility Investigation** RCRA process for determining the extent of hazardous waste contamination. Similar to a CERCLA remedial investigation.

REFERENCES

- Record of Decision (ROD)** The document containing the final decision and agreement among the installation, the state, and U.S. EPA concerning selection of the remedial action at a site or a group of sites.
- Remedial Action (RA)** Those actions consistent with permanent remedy taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health, welfare or the environment. The term includes, but is not limited to, such actions at the location of the release as storage; confinement; perimeter protection using dikes, trenches, or ditches; clay cover; neutralization; cleanup of released hazardous substances and associated contaminated materials; recycling or reuse; diversion; destruction; segregation of reactive wastes; dredging or excavations; repair or replacement of leaking containers; collection of leachate and runoff; onsite treatment or incineration; provision of alternative water supplies; and any monitoring reasonably required to assure that such actions protect the public health, welfare and the environment. The term includes the costs of permanent relocation of residents and businesses and community facilities where the President determines that, alone or in combination with other measures, such relocation is more cost-effective and environmentally preferable to the transportation, storage, treatment, destruction, or secure disposition offsite of hazardous substances, or may otherwise be necessary to protect the public health or welfare. The term includes offsite transport and offsite storage, treatment, destruction, or secure disposition of hazardous substances and associated contaminated materials.
- Remedial Action-Construction (RA-C)** The period during which the final remedy is being put in place. The end date signifies that the construction is complete, all testing has been accomplished, and that the remedy will function properly.
- Remedial Action-Operation (RA-O)** The period during which the remedy is in place and operating to achieve the cleanup objective identified in the Record of Decision or equivalent agreement. Any system operation or monitoring requirements during this time shall be termed RA-O.
- Remedial Design (RD)** CERCLA phase during which construction parameters and equipment specifications for a selected cleanup technology are defined on the basis of the unique characteristics of the site.
- Remedial Investigation (RI)** CERCLA process for determining the extent of hazardous substance contamination and, as appropriate, for conducting treatability studies. The RI provides site-specific information for the feasibility study.
- Remedial Project Manager (RPM)** The person assigned to manage remedial actions or other response actions taken (or needed) at sites in the Installation Restoration program (IRP). The RPM is responsible for coordinating, directing, and reviewing IRP work; ensuring compliance with the National Contingency Plan; and recommending action on decisions.
- Remedy in Place (RIP)** Designation that a final remedial action has been constructed and implemented and is operating as planned in the remedial design. An example of a remedy in place is a pump-and-treat system that is installed, is operating as designed, and will continue to operate until cleanup levels have been attained. Because operation of the remedy is ongoing, the site cannot be considered response complete.

- Removal Action** Part of the response process for, and often the first response to, an actual or threatened contaminant release. A removal action will employ any means necessary to abate, minimize, stabilize, mitigate, or eliminate the release or threat of release.
- Resource Conservation and Recovery Act (RCRA)** RCRA was enacted in 1976 to address the issue of how to safely manage and dispose of the huge volumes of municipal and industrial waste generated nationwide. Specifically, the RCRA program regulates solid waste recycling and disposal; federal procurement of products containing recycled materials; waste minimization; hazardous waste generators and transporters; hazardous waste treatment, storage, and disposal facilities; and underground storage tanks.
- Response Complete (RC)** Term indicating that the IRP actions at a site or installation are deemed complete and that the site or installation is no longer a threat to public health or the environment. RC also can mean that the DoD Component is satisfied that IRP actions at a site are complete and that the proper authorities have been or are being notified, where necessary, of this determination. Long-term monitoring can still occur after a site achieves the RC milestone.
- Restoration Advisory Board (RAB)** An advisory group for the environmental restoration process that includes members of the public, the installation, and regulatory agencies. The purpose of a RAB is to gain effective input from stakeholders on cleanup activities and to increase installation responsiveness to community environmental restoration concerns.
- Restoration Management Information Systems (RMIS)** A database designed to manage information about the DERP. By using this management tool, key personnel can track Management cleanup progress and expenditures throughout the restoration process for any site on any installation.
- Site** A unique name given to a distinct area of an installation containing one or more releases or threatened releases of hazardous substances treated as a discreet entity or consolidated grouping for response purposes. Includes any building, structure, impoundment, landfill, storage container, or other site or area where a hazardous substance was or has come to be located, including formerly used sites eligible for building demolition/debris removal. Installations and ranges may have more than one site.
- Site Inspection (SI)** A CERCLA process for acquiring the necessary data for confirming the existence of environmental contamination at identified potential sites and for assessing the associated potential risks to human health, human welfare, and the environment. The data collected at each site must be sufficient to support the decision to either continue with a remedial investigation/feasibility study or to remove the site from further investigation.
- Soil Vapor Extraction(SVE)** A process that treats unsaturated soil contaminated with volatile organic compounds (VOCs). It induces the VOCs to flow through the soil to an extraction well by applying a vacuum device to the extraction wells, creating a pressure gradient that causes diffusion. The process includes a system for handling the gases. This technology is also known as in situ soil venting, in situ volatilization, enhanced volatilization, or soil vacuum extraction.

- Solid Waste Management Unit (SWMU)** Any unit at a RCRA facility from which hazardous constituents might migrate, irrespective of whether the unit was intended for management of solid or hazardous waste. SWMU types include, but are not limited to, container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, injection wells, recycling operations, miscellaneous units, and releases from such units.
- Technical Assistance Grants** Specific allotments (of up to \$50,000 for a single recipient) that are made available by U.S. EPA to any group of individuals that may be affected by a release or threatened release at an installation that is listed on the National Priorities List under the National Contingency Plan. Such grants may be used to obtain technical assistance in interpreting information about the nature of the hazard, document review, remedy selection, construction of the remedial action, operation and maintenance, or removal action at such an installation.
- Technical Assistance for Public Participation (TAPP)** A DoD program designed to assist community members of Restoration Advisory Boards and technical review committees in participating more fully in the cleanup process affecting DoD installations and FUDS. TAPP allows community members to obtain objective, independent scientific and engineering support concerning the restoration process through the issuance of government purchase orders to small businesses. TAPP purchase orders are limited to \$25,000 or 1 percent of restoration cost to complete (the total cost of installation cleanup) annually.
- Technical Review Committee (TRC)** A group of technical experts that is responsible for reviewing technical reports and data for a site. A TRC is established at an installation for the purpose of reviewing and commenting on actions and proposed actions concerning releases or threatened releases at the installation. The TRC consists of at least one representative from the installation, a representative of U.S. EPA, appropriate state and local authorities, and a public representative of the community involved.
- Transferred Range** A property formerly used as a military range that is no longer under military control and had been leased by the DoD, transferred, or returned from the DoD to another entity, including federal entities. This includes a military range that is no longer under military control but was used under the terms of a withdrawal, executive order, special-use permit or authorization, right-of-way, public land order, or other instrument issued by the federal land manager.
- Transferring Range** A military range that is proposed to be transferred or returned from the DoD to another entity, including federal entities. This includes a military range that is used under the terms of a withdrawal, executive order, act of Congress, public land order, special-use permit or authorization, right-of-way, or other instrument issued by the federal land manager or property owner. An operational or closed range will not be considered a “transferring range” until the transfer is imminent.
- Underground Storage Tank (UST) Program** The UST program regulates tanks that store either petroleum products or hazardous substances. RCRA Subtitle I establishes requirements for the management of USTs that contain petroleum products or any substance defined as hazardous under CERCLA. Investigation and cleanup of past contamination at UST sites are eligible for funding under the Defense Environmental Restoration Program.

Unexploded Ordnance (UXO) Military munitions that have been primed, fuzed, armed, or otherwise prepared for action, and have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material and remain unexploded either by malfunction, design, or any other cause.

Waste Military Munitions For purposes of this report, a waste military munitions is defined as an unused munitions that was abandoned by being disposed of, burned, or incinerated, or treated prior to disposal; or, a used or fired munitions that was recovered, collected, and disposed of by burial, landfilling, or land treatment.

ACRONYMS



ACSIM	Assistant Chief of Staff for Installation Management	CERFA	Community Environmental Response Facilitation Act
AEC	Army Environmental Center	CFR	Code of Federal Regulations
AFB	Air Force Base	CMD	Corrective Measures Design
AFBCA	Air Force Base Conversion Agency	CMI	Corrective Measures Implementation
AFCEE	Air Force Center for Environmental Excellence	CMS	Corrective Measures Study
AFRPA	Air Force Real Property Agency	CON/HTRW	Containerized Hazardous, Toxic, and Radioactive Waste
AOC	Area of Concern	CRP	Community Relations Plan
ARAR	Applicable or Relevant and Appropriate Requirement	CS	Confirmation Study
AREE	Area Requiring Environmental Evaluation	CTC	Cost to Complete
ARTT	Alternative Restoration Technology Team	CTT	Closed, Transferred, or Transferring
ASA(I&E)	Assistant Secretary of the Army for Installation and Environment	CWM	Chemical Warfare Materiel
AST	Aboveground Storage Tank	CY	Calendar Year
ATSDR	Agency for Toxic Substances and Disease Registry	DAS	Deputy Assistant Secretary
BCP	BRAC Cleanup Plan	DD	Decision Document
BCT	BRAC Cleanup Team	DDESB	Department of Defense Explosives Safety Board
BD/DR	Building Demolition and Debris Removal	DDT	Dichlorodiphenyltrichloroethane
BEC	BRAC Environmental Coordinator	DERA	Defense Environmental Restoration Account
BES	Budget Estimate Submission	DERP	Defense Environmental Restoration Program
BRAC	Base Realignment and Closure	DERTF	Defense Environmental Response Task Force
BTEX	Benzene, Toluene, Ethylbenzene, and Xylene (solvents)	DLA	Defense Logistics Agency
CA	Cooperative Agreement; Corrective Action	DNA	Defense Nuclear Agency
CAP	Corrective Action Plan	DNAPL	Dense Nonaqueous Phase Liquid
CAR	Contamination Assessment Report	DoD	Department of Defense
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	DOJ	Department of Justice

DOE	Department of Energy	FOSL	Finding of Suitability to Lease
DON	Department of Navy	FOST	Finding of Suitability to Transfer
DPG	Defense Planning Guidance	FR	Federal Register
DRMO	Defense Reutilization and Marketing Office	FS	Feasibility Study
DSERTS	Defense Site Environmental Restoration Tracking System	FUDS	Formerly Used Defense Site
DSMOA	Defense and State Memorandum of Agreement	FY	Fiscal Year
DTRA	Defense Threat Reduction Agency	GIS	Geographic Information System
DUSD(I&E)	Deputy Under Secretary of Defense (Installations & Environment)	GPR	Ground-Penetrating Radar
EA	Environmental Assessment	GPRA	Government Performance and Results Act
EBS	Environmental Baseline Survey	GPS	Global Positioning System
EDC	Economic Development Conveyance	GSA	General Services Administration
EE/CA	Engineering Evaluation and Cost Analysis	GWTP	Groundwater Treatment Plant
EFD/A	Engineering Field Division/Activity	HHRA	Human Health Risk Assessment
EIS	Environmental Impact Statement	HRS	Hazard Ranking System
EO	Executive Order	HSWA	Hazardous and Solid Waste Amendments
EPA	U.S. Environmental Protection Agency	HTRW	Hazardous, Toxic, and Radioactive Waste
ERP	Environmental Restoration Program	IAG	Interagency Agreement
ERA	Ecological Risk Assessment	IAS	Initial Assessment Study
ESD	Explanation of Significant Differences	IMA	Installation Management Agency
ESI	Expanded Site Inspection	INPR	Inventory Project Report
ESTCP	Environmental Security Technology Certification Program	IPR	In-Progress Review
ETA	Early Transfer Authority	IR	Installation Restoration
FAA	Federal Aviation Administration	IRA	Interim Remedial Action
FFA	Federal Facility Agreement	IRP	Installation Restoration Program
FFCA	Federal Facilities Compliance Act	ISC	Initial Site Characterization
FFID	Federal Facility Identification number	ITRC	Interstate Technology Regulatory Council
FFS	Focused Feasibility Study	IWTP	Industrial Wastewater Treatment Program
FOSET	Finding of Suitability for Early Transfer	LFI	Limited Field Investigations
		LNAPL	Light Nonaqueous Phase Liquid

REFERENCES

LRA	Local Redevelopment Authority	NFRAP	No Further Remedial Action Planned
LRP	Land Reuse Plan	NOAA	National Oceanic and Atmospheric Administration
LTM	Long-Term Management	NPL	National Priorities List
LTO	Long-Term Operations	NRC	Nuclear Regulatory Commission
LUCs	Land Use Controls	NTCRA	Non-Time-Critical Removal Action
MAP	Management Action Plan	NWIRP	Naval Weapons Industrial Reserve Plant
MCAS	Marine Corps Air Station	O&M	Operation and Maintenance
MCB	Marine Corps Base	OB/OD	Open Burning/Open Detonation
MCL	Maximum Contaminant Level	ODUSD(I&E)	Office of the Deputy Under Secretary of Defense (Installations & Environment)
MCLB	Marine Corps Logistics Base	OEW	Ordnance and Explosives Waste
MILCON	Military Construction	OMB	Office of Management and Budget
MMRP	Military Munitions Response Program	OP&S	Operating Properly and Successfully
MOA	Memorandum of Agreement	OSD	Office of the Secretary of Defense
MoM	Measure of Merit	OU	Operable Unit
MOU	Memorandum of Understanding	PA	Preliminary Assessment
NAS	Naval Air Station	PAE	Preliminary Assessment of Eligibility (FUDS)
NASA	National Aeronautics and Space Administration	PAH	Polyaromatic Hydrocarbons
NAVFAC	Naval Facilities Engineering Command	PBC	Performance-based Contracting
NAWC	Naval Air Warfare Center	PCB	Polychlorinated Biphenyl
NAWS	Naval Air Weapons Station	PCP	Pentachlorophenol
NCP	National Oil and Hazardous Substances Pollution Contingency Plan	PDBS	Passive Diffusion Bag Sampler
NCS	Naval Communication Station	PHA	Public Health Assessment
NDAI	No Defense Action Indicated	POL	Petroleum, Oil, and Lubricants
NELP	Navy Environmental Leadership Program	POM	Program Objective Memorandum
NEPA	National Environmental Policy Act	PPBS	Planning, Programming, and Budgeting System
NFA	No Further Action	ppm	Parts per Million
NFESC	Naval Facilities Engineering Service Center	PRAP	Proposed Remedial Action Plan

PRP	Potentially Responsible Party	SBA	Small Business Administration
PSE	Preliminary Source Evaluation	SC	Site Closeout
RA	Remedial Action	SEBS	Supplemental Environmental Baseline Survey
RA-C	Remedial Action Construction	SERDP	Strategic Environmental Research and Development Program
RA-O	Remedial Action Operation	SI	Site Inspection
RAB	Restoration Advisory Board	SSEBS	Site-Specific Environmental Baseline Survey
RAC	Risk Assessment Code	SSI	Screening Site Inspection
RACER	Remedial Action Cost Engineering and Requirements	SVE	Soil Vapor Extraction
RAP	Remedial Action Plan	SWMU	Solid Waste Management Unit
RBCA	Risk-Based Corrective Action	TAG	Technical Assistance Grant
RC	Response Complete	TAPP	Technical Assistance for Public Participation
RCRA	Resource Conservation and Recovery Act	TCE	Trichloroethylene
R&D	Research and Development	TCRA	Time-Critical Removal Action
RD	Remedial Design	TERC	Total Environmental Restoration Contract
RDT&E	Research, Development, Testing, and Evaluation	TNT	Trinitrotoluene
RDX	Cyclonite/Hexahydro-1,3,5-trinitro-1,3,5-triazine (royal demolition explosive)	TPH	Total Petroleum Hydrocarbons
RFA	RCRA Facility Assessment	TRC	Technical Review Committee
RFI	RCRA Facility Investigation	TS	Treatability Study
RI	Remedial Investigation	TSCA	Toxic Substances Control Act
RIP	Remedy in Place	USACE	U.S. Army Corps of Engineers
RMIS	Restoration Management Information System	USC	United States Code
RPO	Remedial Process Optimization	USD(AT&L)	Under Secretary of Defense (Acquisition, Technology & Logistics)
ROD	Record of Decision	USFWS	U.S. Fish and Wildlife Service
RPM	Remedial Project Manager	USGS	U.S. Geological Survey
RRSE	Relative-Risk Site Evaluation	UST	Underground Storage Tank
RSE	Removal Site Evaluation	UXO	Unexploded Ordnance
SADBU	Small and Disadvantaged Business Utilization	VOC	Volatile Organic Compound
SARA	Superfund Amendments and Reauthorization Act of 1986	VSI	Visual Site Inspection

REPORTING REQUIREMENTS SUMMARY



CERCLA §120(e)(5); 42 USC §9620(e)(5)

Location in DERP Annual Report to Congress

Each department, agency, or instrumentality responsible for compliance with this section shall furnish an annual report to Congress concerning its progress in implementing the requirements of this section. Such reports shall include, but shall not be limited to, the following:

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| <ul style="list-style-type: none"> A) A report on the progress in reaching interagency agreements under this section. B) The specific cost estimates and budgetary proposals involved in each interagency agreement. C) A brief summary of the public comments regarding each proposed interagency agreement. D) A description of the instances in which no agreement was reached. | <p>Defense Environmental Restoration Program Chapter</p> |
| <ul style="list-style-type: none"> E) A report on progress in conducting investigations and studies under paragraph (1). F) A report on progress in conducting remedial actions. G) A report on progress in conducting remedial actions at facilities that are not listed on the National Priorities List. | <p>Appendix B: IRP Status Tables</p> |

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 report shall also be submitted to the affected states.

- Appendix A: Installation Narrative Summaries
- Appendix B: IRP Status Tables
- Defense Environmental Restoration Program Chapter

CERCLA §121(c); 42 USC §9621(c)

Location in DERP Annual Report to Congress

If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each 5 years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section 9604 or 9606 of this title, the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.

Appendix A: Installation Narrative Summaries
Appendix B: IRP Status Tables

SARA §211; 10 USC §2706

Location in DERP Annual Report to Congress

(a) Report on Environmental Restoration Activities.

- 1) The Secretary of Defense shall submit to the Congress each year, not later than 45 days after the date on which the President submits to the Congress the budget for a fiscal year, a report on the progress made by the Secretary in carrying out environmental restoration activities at military installations.
- 2) Each such report shall include, with respect to environmental restoration activities for each military installation, the following:

- A) A statement of the number of sites at which a hazardous substance has been identified.
- B) A statement of the status of the response actions proposed for or initiated at the military installation.
- C) A statement of the total cost estimated for such response actions.
- D) A statement of the amount of funds obligated by the Secretary for such response actions, and the progress made in implementing the response actions during the fiscal year preceding the year in which the report is submitted, including an explanation of
 - i) any cost overruns for such response actions, if the amount of funds obligated for such response actions exceeds the estimated cost for those response actions by the greater of 15 percent of the estimated cost or \$10,000,000; and
 - ii) any deviation in the schedule (including a milestone schedule specified in an agreement, order, or mandate) for such response action of more than 180 days.
- E) A statement of the amount of funds allocated by the Secretary for, and the anticipated progress in implementing, such response actions during the fiscal year in which the report is submitted.
- F) A statement of the amount of funds requested for such response action for the five fiscal years following the fiscal year in which the report is submitted, and the anticipated progress in implementing such response actions for the fiscal year for which the budget is submitted.

Appendix B: IRP Status Tables

REFERENCES

- G) A statement of the total costs incurred for such response actions as of the date of submission of the report.
- H) A statement of the estimated cost of completing all environmental restoration activities at the military installation.
- I) A statement of the estimated schedule for completing all environmental restoration activities at the military installation.
- J) A statement of the activities, if any, including expenditures for administration and technical assistance under section 2705 of this title, of the technical review committee or restoration advisory board established for the installation under such section during the preceding fiscal year. Defense Environmental Restoration Program Chapter

Public Law 105-85; FY98 National Defense Authorization Act; 10 USC §2702 (Note)

Location in DERP Annual Report to Congress

In the annual report required under title 10, United States Code §2706(a), the Secretary shall include the following information with respect to cooperative agreements entered into under this section:

- 1) The number of such partnerships. Appendix A: Installation Narrative Summaries
- 2) A description of the nature of the technology involved in each such partnership. Defense Environmental Restoration Program Chapter
- 3) A list of all partners in such partnerships.

Public Law 107-64, Section 131; FY02 Military Construction Act

Location in DERP Annual Report to Congress

- (a) Requests for funds for environmental restoration at BRAC sites in future fiscal years- In the budget justification materials submitted to Congress in support of the Department of Defense budget for any fiscal year after fiscal year 2002, the amount requested for environmental restoration, waste management, and environmental compliance activities in such fiscal year with respect to military installations approved for closure or realignment under the base closure laws shall accurately reflect the anticipated cost of such activities in such fiscal year. Defense Environmental Restoration Program Chapter
Appendix A: Installation Narrative Summaries
Appendix B: IRP Status Tables
Appendix C: MMRP Status Tables
Appendix D: Environmental Condition of BRAC Property

WEB SITES



	Web Site	Description	Internet Location
DoD	Defense Environmental Restoration Program (DERP) Report to Congress	Online copy of the 1994 through 2000 DERP Reports to Congress	http://www.dtic.mil/envirodod/DERP/DERP.htm
	DoD Environmental Cleanup Home Page	Web resource for up-to-date information on DoD's billion dollar cleanup program	http://www.dtic.mil/envirodod/index.html
	Office of the Deputy Under Secretary of Defense (Installations and Environment) (ODUSD(I&E))	Home page for ODUSD(I&E), providing general information about the office as well as links to other sites	http://www.acq.osd.mil/ie/
	Base Realignment and Closure (BRAC) Home Page	BRAC information, policy, and guidance documents, points of contact, fact sheets, tools, and other BRAC-related publications	http://www.dtic.mil/envirodod/CProgram/FocusA/CP_FABRAC.htm or http://www.dtic.mil/envirodod/Policies/PDBRAC.htm
	DoD Relative-Risk Site Evaluation Primer	Provides information on the relative-risk site evaluation framework used by DoD and detailed instructions on conducting relative-risk evaluations	http://www.dtic.mil/envirodod/Policies/Cleanup/relrisk_relrisk.html
	Devolvement of the Defense Environmental Restoration Account	Description of the benefits of disbursing funds to each Service and providing answers to questions and congressional concerns	http://www.dtic.mil/envirodod/derpreport96/vol1/fact1.html

REFERENCES

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DoD	Proposed Restoration Advisory Board (RAB) Rule	DoD's 1996 proposed rule, which is awaiting finalization	http://www.dtic.mil/envirodod/rab/rab_fedr.html
	Final Technical Assistance for Public Participation Rule	DoD's final rule on facilitating public participation in the DERP	http://www.dtic.mil/envirodod/PDTAPP.htm
	RAB Information Home Page	Provides a list of publications and information about RABs	http://www.dtic.mil/envirodod/Policies/PDRAB.htm
	RAB Resource Book	Provides a summary of DoD policy on various aspects of establishing and operating RABs and lists several other sources of information	http://www.dtic.mil/envirodod/Policies/RAB/rab_res_book.html
	Directory of RABs	Lists all active and inactive RABs and points of contact for each RAB	http://www.dtic.mil/envirodod/Stakeholder/WCommunity/SI_WCRAB.htm or http://www.dtic.mil/envirodod/Policies/RAB/rab_links.htm
Army	U.S. Army Corps of Engineers (USACE) Environmental Division	Provides general information on all aspects of the USACE	http://hq.environmental.usace.army.mil/
	Office of Director of Environmental Programs–Army	Includes the Army's environmental mission and policy statement as well as recent Army news and links	http://www.hqda.army.mil/acsimweb/homepage.shtml
	U.S. Army Environmental Center (USAEC)	Provides general information on all aspects of the USAEC	http://aec.army.mil/usaec/
	U.S. Army BRAC Office	Provides general information on all aspects of the BRAC program as well as recent news and data	http://www.hqda.army.mil/acsimweb/brac/braco.htm

Web Site	Description	Internet Location	
Navy	Department of the Navy Environmental Program	Includes the Navy's environmental mission and policy statement, recent news, and links to other Navy and environmental sites	http://enviro.navy.mil/
	Department of Navy 5-Year Environmental Restoration Plan	A look at the Navy's plan for identifying and assessing potential areas of environmental contamination from FY99 through FY03	http://5yrplan.nfesc.navy.mil/
	Navy Environmental Leadership Program	Provides information on the program and lists other resources, including recent publications	http://nelp.navy.mil
	Naval Facilities Engineering Service Center Environmental Services	Provides general information about the center, assistance with environmental compliance, and links to relevant documents	http://enviro.nfesc.navy.mil/
Air Force	Air Force Center for Environmental Excellence (AFCEE)	Provides general information about AFCEE and its products and services	http://www.afcee.brooks.af.mil/
	Air Force Environmental Home Page	Includes the Air Force's environmental mission and policy statement, as well as recent news	http://www.af.mil/environment/
	Air Force Real Property Agency	Provides general information about the Air Force BRAC program and BRAC bases	http://www.afarpa.hq.af.mil/
	PRO-ACT	Air Force's environmental information clearinghouse and research service	http://www.afcee.brooks.af.mil/pro-act
DLA	DLA Environmental and Safety Directorate (DSS-E)	Provides information about the DSS-E and links to DLA and other resources	http://www.dla.mil/dss/dss-e/
	Hazardous Technical Information Services (HTIS)	HTIS is a support function, operated by DLA, that provides consultation services to DoD personnel worldwide	http://www.dscr.dla.mil/htis/htis.htm

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Web Site		Description	Internet Location
FUDS	FUDS	A USACE-sponsored site that describes FUDS projects	http://hq.environmental.usace.army.mil/programs/fuds/fuds.html
	FUDS GIS Web Site	FUDS Program public GIS web site	http://m1.crrel.usace.army.mil/fuds/
U.S. EPA	U.S. EPA	U.S. EPA home page containing links to all Regions and resources	http://www.epa.gov
	EPA Office of Solid Waste and Emergency Response	Provides information about RCRA and solid waste definitions and programs	http://www.epa.gov/swerrims/
	U.S. EPA Pollution Prevention Home Page	Pollution prevention guidance and documents	http://www.epa.gov/opptintr/p2home
	RCRA, Superfund, and EPCRA Hotline	Information on RCRA, Superfund, UST, SPCC, EPCRA, Oil Pollution Act, RMP, and pollution prevention	http://www.epa.gov/epaoswer/hotline
	Ground Water and Drinking Water, U.S. EPA, Office of Water	Safe Drinking Water Act and amendments and information on policy and regulations regarding public water supply programs	http://www.epa.gov/ogwdw
	Wetlands Protection, U.S. EPA, Office of Water	Information on the value and function of wetlands, guidance documents, and information on constructed wetlands	http://www.epa.gov/owow/wetlands/
	Superfund	Information about the Superfund program and sites	http://www.epa.gov/superfund/
Other	Air RISC Hotline 1-919-541-0888	Information on health, exposure, and risk assessment of toxic air pollutants	

	Web Site	Description	Internet Location
Other	Asbestos Abatement Management Ombudsman	Information on asbestos abatement 1-800-368-5888	
	Defense Environmental Network and Information Exchange (DENIX)	Provides DoD personnel in the environmental security arena and the public with up-to-date information on environmental issues, legislation, and DoD guidance	http://www.denix.osd.mil/
	Develop On-site Innovative Technologies Committee Report	Report containing committee findings on cooperative approaches to technical solutions	http://www.westgov.org/wga/publicat/doiweb.htm
	Defense and State Memorandum of Agreement (DSMOA)	A guide to the DSMOA program and process	http://hq.environmental.usace.army.mil/programs/dsmoa/dsmoa.html
	Clearinghouse for Inventories and Emissions Factors	Air pollution emission data for criteria and toxic pollutants from stationary, area, and mobile sources	http://www.epa.gov/ttn/chief/
	Environmental Security Technology Certification Program	Provides general information on projects and documents that describe the program	http://www.estcp.org
	National Response Center Hazardous Materials and Oil Spills Hotline	National Response Center in the event of hazardous material spills, and provides reporting information	http://www.nrc.uscg.mil/nrchp.html
	Partnering Guide for Environmental Missions of the Air Force, Army, and Navy (1996)	Publication on the partnering process, its benefits, and its application	http://www.hq.usace.army.mil/cemp/c/partner.htm
	Institute for Defense Analysis BRAC Report (2000)	Findings on Issues and Alternatives for Cleanup and Property Transfer of BRAC Sites	http://www.denix.osd.mil/denix/Public/ES-Program/Cleanup/IDABRAC/idabrac.html

CONTACTS



For additional general information about the Defense Environmental Restoration Program and information about specific initiatives, write to:

Office of the Assistant Deputy Under Secretary of Defense (Installations & Environment)/Environmental Management
3400 Defense Pentagon
Washington, DC 20301-3400

For additional information about the activities of specific DoD Components, write to:

Department of the Army*

Office of the Deputy Assistant Secretary of the Army
(Environment, Safety, and Occupational Health)
110 Army Pentagon
Washington, DC 20310-0110

Department of the Navy**

Office of the Deputy Assistant Secretary of the Navy
(Environment and Safety)
1000 Navy Pentagon
Washington, DC 20350-1000

Defense Threat Reduction Agency

45045 Aviation Drive
Dulles, VA 20166-7517

Department of the Air Force

Office of the Deputy Assistant Secretary of the Air Force
(Environment, Safety, and Occupational Health)
1660 Air Force Pentagon
Washington, DC 20330-1660

Defense Logistics Agency

Environmental and Safety Directorate
8725 John J. Kingman Road
Suite 2533
Fort Belvoir, VA 22060-6221

***Includes FUDS**

****Includes Marine Corps**

For information on small business, write to:

OSD Small and Disadvantaged Business Utilization Office

3061 Defense Pentagon
Washington, DC 20301-3061

Army Small Business Office

Attn: SADB
106 Army Pentagon
Room 2A712
Washington, DC 20301-0106

Navy Small and Disadvantaged Business Utilization Office

2211 Jefferson Davis Highway
Arlington, VA 22244-5102

Army Corps of Engineers Small Business Office

20 Massachusetts Avenue, NW
#4117
Washington, DC 20014-1000

Air Force Small Business Office

SAF/CB
1060 Air Force Pentagon
Washington, DC 20330-1060