BACKGROUND

"The Defense Department must have an environmental program that protects our troops and families; that manages our training and living areas carefully; that fulfills our obligation to be good citizens; and that sets a good example to other militaries around the world."

—Sherri W. Goodman, Deputy Under Secretary of Defense (Environmental Security)

The Department of Defense's (DoD) environmental cleanup activities began in 1975 under the Installation Restoration Program (IRP) before any formal federal requirements or program was established. DoD instituted its IRP to address past practices that often did not take long-term environmental effects into account. In time, growing public and congressional concern and increasing knowledge about the environment led to a legal and regulatory framework that required a more systematic, far-ranging DoD effort. Chief among the environmental laws driving the present Defense Environmental Restoration Program (DERP) is the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, commonly known as Superfund.

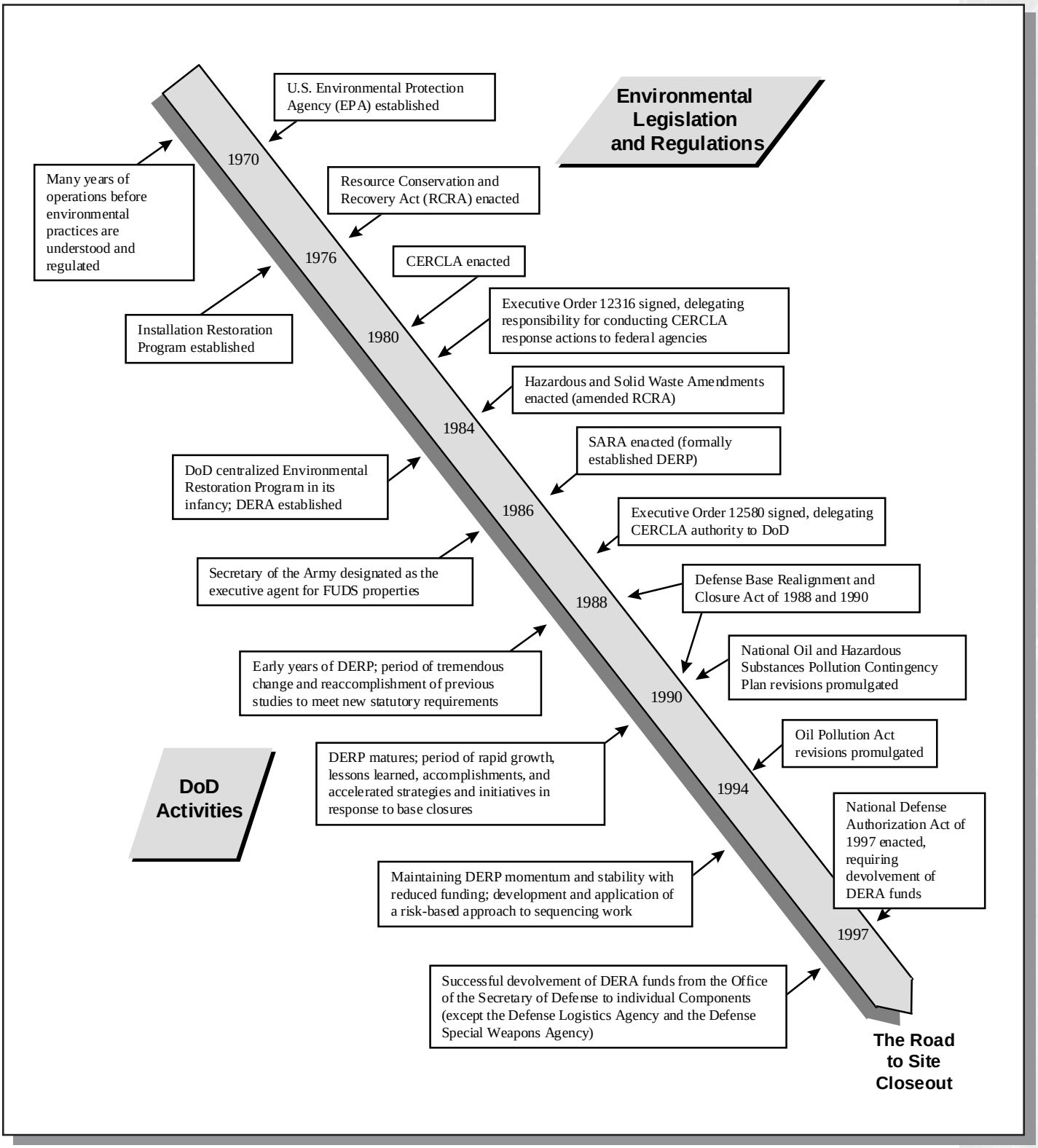
The DERP was formally established in October 1986 with the passage of the Superfund Amendments and Reauthorization Act (SARA). SARA set requirements for the DERP and its funding mechanism, the Defense Environmental Restoration Account (DERA). DERA funding was available in 1984 before the formal establishment of the DERP. The time line in Figure 1 illustrates the evolution of the DERP and key environmental legislation.

DoD's Environmental Restoration Program consists of three programs: Installation Restoration (IR), Other Hazardous Waste, and Building Demolition/Debris Removal (BD/DR). This report focuses specifically on IR activities at operational installations, Formerly Used Defense Sites (FUDS), and Base Realignment and Closure (BRAC) installations as described below.

- ***Installation Restoration*** is a program for identifying, assessing, investigating, and cleaning up contamination from hazardous substances, pollutants, and wastes resulting from past activities at operational installations (active bases and facilities) and other sites where DoD is the principal responsible party. This effort is the main component of the DERP and includes most of DoD's environmental activities at installations; however, other legislation may mandate and direct other aspects of DoD's environmental restoration projects.

- ***Formerly Used Defense Sites*** are sites that DoD or its Components (the military service branches and the Defense Logistics Agency) formerly owned, leased, or otherwise operated. Although these properties may be owned by private citizens, local governments, or private organizations, DoD must address and remediate contamination problems to restore the land to safe and productive use. Investigation and cleanup procedures used at these sites are similar to those used at DoD-owned installations and are funded by DoD, but cleanup at FUDS involves gathering additional information and meeting additional requirements.

Figure 1
The Evolution of the Defense Environmental Restoration Program



- ***Base Realignment and Closure*** installations must comply with DERP requirements. The DERP requires all installations to address environmental cleanup, but BRAC sites also must address closure-related environmental compliance and environmental planning for property reuse and redevelopment. Cleanup of BRAC sites is funded separately from cleanup of IRP installations.

The cleanup program includes investigation and cleanup. In addition, Interim Actions may be implemented at any point in the program to protect human health and the environment.

DERP implementation is driven primarily by CERCLA requirements. CERCLA requires, among other things, evaluation of existing federal and state environmental laws that may apply at a contaminated site. This means that although other federal environmental laws, such as the Resource Conservation and Recovery Act (RCRA) and underground storage tank regulations, may apply at a DoD installation or property, CERCLA is usually the primary legal authority governing the cleanup activities at the installations and FUDS. Each step in the cleanup process encompasses activities defined by CERCLA, or in some cases by RCRA. Table 1 shows how activities defined by CERCLA fit into the DERP and also presents the corresponding RCRA terminology. For more information on the application of other laws at sites where CERCLA is the primary cleanup authority and on how federal facilities must comply with CERCLA, see the following Internet location.

The Superfund Home Page
http://www.epa.gov/superfund
Information on EPA's Superfund program

How CERCLA and RCRA Relate to the DERP

CERCLA

CERCLA established a framework for identification, investigation, and cleanup of releases of hazardous substances. CERCLA authorizes the President to respond when a release or a threat of release is discovered. Executive Order 12580 (signed in 1987) directed the Secretary of Defense, in consultation with the U.S. Environmental Protection Agency (EPA), to investigate and clean up releases of hazardous substances at installations and FUDS under the Secretary's jurisdiction. The National Oil and Hazardous Substances Pollution Contingency Plan establishes EPA's response policy and lays out the key steps for implementing CERCLA. DoD's program for meeting its responsibilities under CERCLA is the DERP. All DoD installations and FUDS properties, whether they are on the National Priorities List (NPL) or are non-NPL installations, follow requirements consistent with CERCLA.

RCRA

RCRA, as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), prescribes a comprehensive program for the management of hazardous wastes. HSWA provides authority for the investigation and cleanup of hazardous waste sites and creates a corrective action program that is substantially equivalent to the CERCLA response process (although some requirements are different). DoD installations that are required to have a RCRA permit to manage hazardous wastes are subject to EPA-imposed or authorized state-imposed corrective action requirements for all known or suspected releases of hazardous wastes or hazardous constituents from solid waste management units or other areas of concern at the installation. Investigation and cleanup of past contamination are eligible for funding under the DERP.

Table 1
DERP Cleanup Process

DERP Cleanup Activity and Description	CERCLA Response Process as Implemented by DoD	RCRA Corrective Action
Investigation An analysis to characterize the nature, extent, and risk of releases of hazardous substances into the environment and to develop and select a cleanup remedy	Preliminary Assessment (PA) Site Inspection (SI) Remedial Investigation (RI) Feasibility Study (FS) Engineering Evaluation/Cost Analysis (EE/CA) Record of Decision (ROD)	RCRA Facility Assessment (RFA) RCRA Facility Investigation (RFI) Corrective Measures Study (CMS)
Interim Action Early measure for reducing the risk of releases of hazardous substances before the initiation of cleanup remedies that are more complicated, comprehensive, and long-term—e.g., placing fences around contaminated areas or removing and treating or disposing of contaminated soil	Removal Action Interim Remedial Action (IRA)	Interim Measures
Cleanup Action for designing, constructing, and implementing a final cleanup remedy	Remedial Design (RD) Remedial Action Construction (RA-C) Remedial Action Operations (RA-O) Long-Term Monitoring (LTM)	Corrective Measures Design (CMD) Corrective Measures Implementation (CMI) Long-Term Monitoring (LTM)

DoD Environmental Cleanup Home Page
http://www.dtic.mil/envirodod/index.html
Web resource for up-to-date information on DoD's cleanup program