

ROD – Record of Decision – a written decision that identifies the selected method for long-term cleanup of contamination at a site.

ROE – Right of Entry

SAP – Sampling and Analysis Plan

SARA – Superfund Amendments and Reauthorization Act

Schonstedt – A hand-held magnetometer used to detect sub-surface ferrous metal.

Scoping – In CERCLA, scoping is the initial planning phase of the cleanup process, when requirements are discussed and the projects defined. In the NEPA process, scoping relates to public involvement to help identify significant issues early so that efforts can be focused on those areas requiring resolution and to present a balanced Environmental Impact Statement.

SI – Site Inspection – An on-site inspection to determine whether there is a release or potential release or presence of contamination and the nature of the associated threats. The purpose is to augment the data collected in the preliminary assessment and to generate, if necessary, sampling and other field data to determine if further action or investigation is appropriate.

Site – Any location, place, tract of land and facilities, including but not limited to buildings and improvements used for the purposes subject to regulation or control.

Site Conceptual Model – A written or pictorial representation of an environmental system and the biological, physical, and chemical processes that determine the transport of contaminant sources through environmental media (air, groundwater, surface water, sediment) to environmental and human receptors within the system.

Sludge – A semi-solid residue from any of a number of air or water treatment processes. Sludge can be a hazardous waste.

Slurry – A watery mixture of insoluble matter that results from some pollution control techniques.

Solidification – The conversion of either liquid or loose hazardous waste into a solid.

Solubility – A measure of how much of a given substance will dissolve in a liquid. Usually measured in weight per unit volume.

SOP – Standard Operating Procedure

SOW – Scope of Work

SSP – Standard Sampling Protocol

Step-out – The process whereby, once an area is investigated and contamination is discovered, the investigation “steps out” to the next closest area and continues until no further detectable contamination is found.

Superfund – The program operated under the legislative authority of CERCLA and SARA that funds and carries out the EPA solid waste emergency and long-term removal remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority level on the list, and conducting and/or supervising the ultimately determined cleanup and other remedial actions.

SVOC – Semi-volatile organic compounds

TAPP – Technical Assistance for Public Participation – An established Restoration Advisory Board may, if needed, request the services of a neutral, third-party consultant to help interpret technical documents.

TCE – Trichloroethene or trichloroethylene – A nonflammable liquid used especially as a solvent and in dry cleaning and removal of grease from metal.

TCL – Target Cleanup Levels

TCRA – Time Critical Removal Action – action to reduce the immediate risk caused by a hazard in the environment, when it is critical to take action within six months or less.

Temporary well point – One-time only groundwater sample taken for analysis, as opposed to a permanent monitoring well.

TERC – Total Environmental Restoration Contract

TNT – trinitrotoluene – flammable substance used either alone as bursting charge for shells, bombs, and grenades or as an ingredient of various explosives and is also used as an intermediate in chemical synthesis.

Toxic – Relating to a harmful effect by a poisonous substance on the human body by physical contact, ingestion or inhalation.

Toxicology – The science that deals with poisons and their effects on plant, animal and human life.

TPP – Technical Project Planning

Transect – In the MEC industry, a transect is a line of data collected over an area to assist in characterization of the site.

Treatment – Any activity that alters the chemical or physical nature of a waste to reduce its toxicity or prepare it for disposal.

Upgradient – The ground water upstream from a point of interest.

USACE – United States Army Corps of Engineers, the federal agency designated by the Department of Defense as the chief executor for environmental restoration activities at FUDS.

USACHPPM – U.S. Army Center for Health Promotion and Preventive Medicine

USC – United States Code

UST – Underground Storage Tank

UXO – Unexploded Ordnance

VE – Value Engineering

VOC – Volatile organic compound, a chemical that contains carbon and commonly also contains hydrogen, oxygen and other elements. The prefix “volatile” means that the compound evaporates readily. Most industrial solvents are volatile and are found in some liquid and air waste releases.

WCS – Waste containment structure

White phosphorus – A flare- and smoke-producing incendiary weapon, or smoke-screening agent used in bombs, artillery shells, mortar shells and grenades that burst into burning flakes when exposed to the air.

WWTP – Waste water treatment plant

X-rays – Electromagnetic radiation used in medical diagnosis; a penetrating electromagnetic radiation, usually generated by accelerating atoms to high velocity and suddenly stopping them by collision with a solid body.

For More Information

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March 2008

This glossary has been prepared as part of the effort to familiarize the public with the specific vocabulary and acronyms used in discussions about environmental restoration in the Defense Environmental Restoration Program for Formerly Used Defense Sites.

Aquifer – A permeable body of rock capable of yielding quantities of groundwater to wells and springs.

Analog geophysical mapping – Mapping done with analog geophysical tools, instruments that produce an audible output, a meter deflection, and/or numeric output, which are interpreted in real-time by the instrument operator.

Anomaly – A response different from the normal background response.

AR – Administrative Record – A comprehensive file of documents that forms the basis of decisions made regarding cleanup.

ARARs – Applicable, Relevant and Appropriate Requirements – A comprehensive set of laws and regulations that are relevant to guide the selection of cleanup activities at a particular site.

ASR – Archive Search Report

AST – Aboveground Storage Tank

ATSDR – Agency for Toxic Substances and Disease Registry

Baseline risk assessment – The study and estimation of risk, absent any action being taken. Involves estimates of probability and consequence.

Carcinogen – A chemical or complex mixture of closely related chemicals known to be a cancer-causing agent.

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act (also known as Superfund), the federal law that guides cleanup of hazardous waste sites.

CFR – Code of Federal Regulations

Characterization – Facility or site sampling, monitoring and analysis activities to determine the extent and nature of a release. Characterization provides the basis for acquiring the necessary technical information to develop, screen, analyze, and select appropriate cleanup techniques.

Cleanup – The general term for environmental remediation, the process designed to ensure that risks to the environment and to human health and safety from waste sites are either eliminated or reduced to prescribed, safe levels.

Closure plan – Documentation prepared to guide the deactivation, stabilization and surveillance of a waste management unit or facility under the Resource Conservation and Recovery Act.

Contaminant – Any solid, liquid, or gaseous matter, any odor, or any form of energy.

Contamination – The presence of foreign materials, chemicals or radioactive substances in the environment (soil, sediment, water or air) in significant concentrations.

Comment period – Time provided for the public to review and comment on a proposed action or decision.

Community relations – The effort to establish two-way communication with the public to ensure public input into the decision-making process related to Superfund and environmental restoration.

CSM – Conceptual Site Model

CTC – Cost to Complete

Cubic meters – A unit equal to the volume of a cube measuring one meter in each dimension.

Cubic yards – A unit equal to the volume of a cube measuring one yard in each dimension.

Cultural debris – Metal and other debris not related to munitions, such as building/construction debris, wires, etc.

CWM – Chemical Warfare Materiel

CX – Center of Expertise

Decontamination – The removal of unwanted material from facilities, soils or equipment by washing, chemical action, mechanical cleansing or other techniques.

Defense wastes – The wastes resulting from military weapons research and development.

DENIX – Defense Environmental Network and Information Exchange

DERA – Defense Environmental Restoration Account

DERP – Defense Environmental Restoration Program

DERP-FUDS – Defense Environmental Restoration Program for Formerly Used Defense Sites

Detection – The ability of an instrument to sense a specific amount or quantity, of the presence or past presence of a liquid, gas or element in the local air, ground or water. (See also non-detection)

DGM – Digital geophysical mapping – Mapping done with instruments that digitally record geophysical measurements and where the recorded data can be geo-referenced to where each measurement occurred. This family of tools can either be interpreted in real-time, near real-time or any later time after data collection work is complete.

Disposal – Waste emplacement designed to ensure isolation of waste from the biosphere, with no intention of retrieval for the foreseeable future.

DLA – Defense Logistics Agency

DOD – U. S. Department of Defense

DOE – U.S. Department of Energy

DOH – U.S. Department of Health

DOJ – U.S. Department of Justice

DQO – Data Quality Objective

DSMOA – Defense and State Memorandum of Agreement

EE/CA – Engineering Evaluation and Cost Analysis – A CERCLA document prepared to address interim cleanup activities.

Effluent – A waste discharged as a liquid.

EIS – Environmental Impact Statement

Element – Any of the 109 substances that cannot be broken down further without changing chemical properties. Singly or in combination, elements constitute all matter.

EM-61 – A high-powered time domain metal detector that can record data and detect both ferrous and non-ferrous metal. The system is typically pulled on a wheeled platform.

Environmental restoration – The process of environmental cleanup designed to ensure that risks to the environment and to human health and safety from waste sites either are eliminated or reduced to prescribed, safe levels.

EO – Executive Order

EOD – Explosive Ordnance Disposal

ER – Engineering Regulation

Erosion control – Methods to control land surface features to prevent erosion by surface water or precipitation runoff.

ESP – Explosive Siting Plan

ESS – Explosive Safety Submission

FAQ – Frequently Asked Question

FDEP – Florida Department of Environmental Protection

FEIS – Final Environmental Impact Statement

Final disposition – Methods for permanent disposal of waste or contaminated media residuals following excavation/treatment.

Ferrous metal – Metal containing iron.

FR – Federal Register

FS – Feasibility Study – the Superfund study following a Remedial Investigation which identifies, develops, evaluates and selects remedial action alternatives.

FSP – Field Sampling Plan

FUDS – Formerly Used Defense Sites

GIS – Geographic Information System

Groundwater – Water beneath the earth's surface that fills pores between materials such as sand, soil or gravel. Groundwater is a major source of water for agricultural and industrial purposes and is an important source of drinking water for about half of all Americans.

Hazardous waste – A solid waste or combination of solid wastes that, because of 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 hazard to human health or the environment

when improperly treated, stored, transported, disposed or otherwise managed. About 290 million tons of hazardous wastes are generated in the United States each year. A small percentage (about 4 percent) is recycled. The rest is treated, stored or disposed. Of the hazardous wastes disposed, most are injected as a liquid into the ground in specially designed injection wells. A large quantity is placed in surface impoundments (pits, ponds and lagoons). A small portion is placed directly on the land or buried.

Heavy metals – Metals that are dense. Examples include mercury, lead, silver, gold and uranium.

HQDA – Headquarters, Department of the Army

HQUSACE – Headquarters, U.S. Army Corps of Engineers

HTRW – Hazardous, Toxic and Radioactive Waste

Hydrogeologic – Pertaining to groundwater and its movements through the geologic environment.

Hydrogeology – The science of how geology and groundwater interact.

Inert munitions – Munitions in which all energetic material such as primer, fuze, and explosive or incendiary fill have been removed or rendered harmless.

INPR – Inventory Project Report

IR – Information Repository, where information relating to DERP-FUDS projects may be found.

IRA – Interim Removal Action

Leachate – The solution formed when soluble components have been removed from a material.

Leaching – To remove a soluble substance from a material by dissolving it in a liquid, and then removing the liquid from what is left.

LTSM – Long-term Surveillance and Maintenance

“Mag and dig” – Using a magnetometer to locate anomalies and then immediately excavating them.

“Mag and flag” – Using a magnetometer to locate anomalies, or irregularities under ground, and flag them for further investigation.

MC – Munitions constituents – any materials originating from military munitions, including explosive and non-explosive materials as well as associated degradation products.

MCL – Maximum contaminant level. The regulatory limit for various constituents, usually organics and inorganics; there are different levels for different media, such as air, soil and water. The MCL cannot be exceeded.

MD – Munitions debris – Inert munitions or pieces of munitions.

MDL – Method detection limit. The minimum concentration of a substance that can be measured as reported with 99% confidence that the true value is greater than zero, pursuant to appropriate federal or state regulatory standards.

MEC – Munitions and Explosives of Concern

MMRP – Military Munitions Response Program

Mobility – The ability of a contaminant to move through food chains in the environment.

Monitoring well – A hole drilled into the ground with a pipe inserted and filtering material added to allow for the collection of groundwater samples.

MRS – Munitions Response Site

NAS – National Academy of Sciences

Natural radiation – Radiation that is always present in the environment from such sources as cosmic rays and radioactive materials in rocks and soils. Also known as background radiation.

NCP – National Oil and Hazardous Substance Pollution Contingency Plan (aka National Contingency Plan)

NELAC – National Environmental Laboratory Accreditation Conference

NEPA – National Environmental Policy Act. A regulatory policy that requires a study of the impacts of activities at federal facilities.

NOFA – No further action

Non-detection – The testing method is unable to measure an amount below the instrument's detection limit; it does not mean a zero concentration.

NPL – National Priority List – the list of the nation's most contaminated Superfund sites.

OE – Ordnance and Explosives

OSHA – Occupational Safety & Health Act

OU – Operable unit

PA – Preliminary Assessment

PAH – Polycyclic aromatic hydrocarbons

Pathways – The means by which contaminants move. Possible pathways include air, surface water, groundwater, plants and animals.

PCB – Polychlorinated biphenyl, a synthetic, organic chemical once widely used in electrical equipment, specialized hydraulic systems, heat transfer systems, and other industrial products. Highly toxic and a potent carcinogen. Any hazardous wastes that contain more than 50 parts per million of PCBs are subject to regulation under the Toxic Substances Control Act (TSCA).

PDT – Project Delivery Team

PE – Professional Engineer

PEG – Polyethylene glycol, a series of water-soluble polyether glycols that vary from water white liquids to waxy solids as the average molecular weight increases from 200 to 6000 or more. Used chiefly as lubricants (as in the rubber & textile industries), solvents, softeners, bases for pharmaceutical ointments and cosmetic creams.

PIP – Public Involvement Plan

Plume – A defined area of groundwater containing contamination that originates from a particular source such as a waste unit.

PM – Project Manager

POC – Point of Contact

Potable – Generally fit for human consumption in accordance with accepted water supply principles and practices.

PP – Proposed Plan – a CERCLA document outlining a proposed cleanup remedy and the reasons for selection.

PRAC – Pre-placed Remedial Action Contract

Practice bomb – Used to simulate the same ballistic properties of service-type bombs. Manufactured as either solid cast metal bodies or thin sheet metal containers, practice bombs contain a relatively small signal charge but some large practice bombs may contain an explosive filler. A practice bomb signal cartridge (smoke) is used for visual observation of weapon target impact.

Preliminary Assessment – The review of existing information and/or an off-site reconnaissance, if appropriate, to determine if a release may require additional investigation or action. A PA may include an on-site reconnaissance, if appropriate.

PRP – Potentially Responsible Party

Public water supply – All mains, pipes and structures through which water is obtained and distributed to the public, including wells and well structures, intakes and cribs, pumping stations, treatment plants, reservoirs, storage tanks, etc., used or intended for use for the purpose of furnishing water for drinking or general domestic use.

PWS – Performance Work Statement

QA – Quality Assurance

QC – Quality Control

RA – Risk Assessment. The study and estimation of risk from a current or proposed activity. Involves estimates of the probability and consequence of an action.

RAB – Restoration Advisory Board – a group of community and government representatives who work collaboratively to inform and involve the public in the environmental restoration process.

RAC – Risk Assessment Code

RACER – Remedial Action Cost Engineering and Requirements

Radon – A radioactive gas produced by the decay of one of the daughters of radium. Radon is hazardous in unventilated areas because it can build up to high concentrations and, if inhaled for long periods of time, may cause lung cancer.

RCRA – Resource Conservation and Recovery Act – The federal environmental law designed to account for and ensure proper management of hazardous wastes, from creation to disposition.

Remedial action – Long-term cleanup activities.

Remedial design – A phase of remedial action that follows the Remedial Investigation/Feasibility Study and includes development of engineering drawings and specifications for a site cleanup.

Remediation – Those activities performed to remove or treat hazardous waste sites or to relieve their effects.

Removal action – Interim cleanup activities that are identified as needed to protect public health and the environment.

Responsiveness summary – A document presenting responses to comments received during the public comment period.

RFP – Request for Proposals

RI – Remedial Investigation, the CERCLA process of determining the extent of hazardous substance contamination and, as appropriate, conducting treatability investigations.

RI/FS – Remedial Investigation/Feasibility Study – Two distinct, but related studies that together characterize environmental problems and outline remedial actions to solve those problems.

RIP – Remedy-in-Place

Risk Communication – The exchange of information about health or environmental risks between risk assessors, risk managers, the general public, news media, interest groups, etc.

Risk Management – The process of evaluating alternative regulatory and non-regulatory responses to risk and selecting among them. The selection process necessarily requires the consideration of legal, economic and social factors.