

**APPENDIX F  
GLOSSARY OF TERMS**

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## APPENDIX F GLOSSARY OF TERMS

### A

**Administrative Record** - The collection of documents that forms a basis of the agency cleanup decision. The administrative record will include significant comments received during the public review/comment period.

**Administrative Record File** - A temporary file that is maintained with all available information. The Administrative Record File documents current progress and provides the public with current data for the St. Louis Sites. It is available for public review and comment.

**Action Memorandum** - a concise written record of the selection and approval of a removal action. It describes the site's history, current activities, and health and environmental threats; outlines the action, cleanup levels (if applicable), and estimated costs; and documents approval of the proposed action by the proper Headquarters or Regional authority.

**alpha radiation** - The most energetic but least penetrating form of radiation. It can be stopped by a sheet of paper and cannot penetrate human skin. However, if an alpha-emitting isotope is inhaled or ingested, it will cause highly concentrated local damage.

**ARARs** - Applicable or relevant and appropriate requirements (federal and state environmental standards).

### B

**baseline risk assessment** - The study and estimation of risk from taking no action. Involves estimates of probability and consequence.

**beta radiation** - High-energy electrons (beta particles) emitted from certain radioactive material. Can pass through 1 to 2 centimeters of water or human flesh and can be shielded against by a thin sheet of aluminum. Beta particles are more deeply penetrating than alpha particles but, because of their smaller size, cause less localized damage.

### C

**CERCLA** - Comprehensive Environmental Response, Compensation, and Liability Act (also known as Superfund), the federal law that guides cleanup of hazardous waste sites. A federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act. The act created a special tax that goes into a trust fund, commonly known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites.

**characterization** - Facility or site sampling, monitoring, and analysis activities to determine the nature and extent 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 restoration, the process 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.

**community involvement** - Activities required by CERCLA to strengthen communications with interested parties at cleanup sites.

## D

**decay** - The process whereby radioactive particles undergo a change from one form, or isotope, to another, releasing radioactive particles and/or energy.

**decay product** - An element formed by the radioactive decay of another element; decay products are often radioactive themselves.

**decontamination** - The removal of unwanted material (typically, radioactive material) from facilities, soil, or equipment by washing, chemical action, mechanical cleansing, or other techniques.

## E

**EE/CA** - An engineering evaluation/cost analysis is an activity performed as part of the CERCLA process that evaluates technically and administratively feasible alternatives to clean up a site.

**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.

**erosion control** - Methods to control land surface features to prevent erosion by surface water or precipitation runoff.

**exposure** - A measurement of the displacement of electrons from atoms caused by x-rays or by gamma radiation. Acute exposure generally refers to a high level of exposure of short duration; chronic exposure is lower-level exposure of long duration.

## F

**FFA** - Federal Facility Agreement, an agreement signed in 1990 between the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA) outlining cleanup measures to be undertaken for the St. Louis Sites.

**FS** - Feasibility study, the Superfund study following a remedial investigation that identifies, develops, evaluates, and selects remedial action alternatives.

## G

**gabion wall** - Anti-erosion construction of rock-filled, wire baskets.

**gamma rays** - Penetrating electromagnetic waves or rays emitted from nuclei during radioactive decay, similar to x-rays. Dense materials such as concrete and lead are used to provide shielding against gamma radiation.

**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.

## H

**haul road** - A road once used to haul materials from one of the St. Louis Sites to another.

## I

**interim removal action** - A cleanup measure performed to protect human health and the environment. Performed before final, comprehensive cleanup actions.

**ISOU** - Inaccessible Soil Operable Unit includes inaccessible soil, sewers, buildings, and other permanent structures that will be addressed under a CERCLA action. The ISOU was excluded from the scope of the SLDS Record of Decision in 1998 because inaccessible soil did not present a significant threat in its current configuration. USACE subdivided the areas included in the ISOU into two groups: Group 1 and Group 2.

## N

**NCP** - National Oil and Hazardous Substances Contingency Plan, the blueprint for implementing CERCLA, which specifies that cleanup remedies must protect human health and the environment. Remedies must also comply with all federal and state environmental standards.

**NPL** - National Priorities List, the list of the nation's worst Superfund sites. The St. Louis Airport Site (SLAPS) and the Latty Avenue properties were added to the NPL in October 1989.

## P

**PDIR/FSSE** - Pre-Design Investigation Report/Final Status Survey Evaluations, a report on the findings of surveys that verify that the site meets ROD goals for properties not requiring remedial action.

**pitchblende** - An ore that contains small quantities of uranium.

**PP** - Proposed plan, a CERCLA document on which the public comments that summarizes what cleanup remedy has been selected and why.

**PRAR/FSSE** - Post Remedial Action Report/Final Status Survey Evaluation, a report on the findings of surveys that verify that the site meets ROD goals for properties requiring remedial action.

**preliminary assessments** - There are historical record reviews of activities at the site that are used to determine the probability of likely locations of hazardous waste disposal areas and that initially establishes the extent of contamination.

## R

**risk assessment** - The study and estimation of risk from a current or proposed activity. Involves estimates of the probability and consequence of an action.

**radiation** - The emission and propagation of energy, examples of which include sound, heat, or radioactive energy.

**radioactive** - Giving off, or capable of giving off, radiant energy in the form of particles (alpha or beta radiation) or rays (gamma radiation) by the spontaneous disintegration of the nuclei of atoms. Radioisotopes of elements lose particles and energy through the process of radioactive decay. Elements can decay into different atoms or a different state of the same atom.

**radium** - Radioactive element with half-life of 1,620 years; highly toxic, water-soluble metal; one of the decay products of uranium; used in medicine, industrial radiography, and as a source of neutrons and radon.

**raffinate** - The portion of a liquid mixture that remains undissolved.

**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** - Short-term response intended to protect people from immediate threats posed by hazardous waste sites. Examples include excavating contaminated soil, erecting a security fence, or stabilizing a berm, dike, or an impoundment.

**response action** - A short-term removal action or a long-term remedial response, authorized under CERCLA, to address a release or threat of release of a hazardous substance.

**Responsiveness Summary** - A summary of oral and/or written public comments received during a comment period on key FUSRAP documents, and USACE's response to those comments.

**RI** - Remedial investigation, the CERCLA process of determining the extent of hazardous substance contamination and, as appropriate, conducting treatability investigations.

**RI/FS** - Two distinct, but related studies, the remedial investigation and feasibility study. Together, they characterize environmental problems and outline remedial actions to solve those problems.

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

## S

**site closeout** - Stage at which the site is inspected by the U.S. Environmental Protection Agency (EPA) to confirm the complete remediation of the contamination.

**site evaluation** - A physical inspection of the site to verify information obtained during the preliminary assessments.

## T

**thorium** - Radioactive element; soft, heavy metal, insoluble in water but soluble in acids; one of the decay products of uranium; used in the manufacturing of sunlamps and as a potential source of nuclear energy.

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

## U

**uranium** - The heaviest element found in nature. Approximately 997 out of every 1,000 uranium atoms are uranium-238. The remaining three atoms are the fissile uranium-235. The uranium-235 atom splits, or fissions, into lighter elements when its nucleus is struck by a neutron.

## W

**watershed** - The drainage area of a stream.