## ACRONYMS AND ABBREVIATIONS

AA Atomic Absorption

A&PCT Active and Passive Computed Tomography (non-destructive assay technique)

AECL Atomic Energy of Canada, Limited AEC Army Environmental Center

AEERL Air and Energy Engineering Research Laboratory (EPA, Research Triangle Park, NC)
AEU Analytical Equivalent Unit - The analytical burden associated with full analysis of a typical

five-segment Hanford tank core sample

AFB Air Force Base

AFC Accelerated Facility Characterization

AFCEE Air Force Center for Environmental Excellence

AFIT Air Force Institute of Technology

AGL Above Ground Level

AHCAT Advanced Hot Cell Analytical Technology
ALARA As Low as Reasonably Achievable
ALCD Alternative Landfill Cover Demonstration

Am Americium

AMWTP Advanced Mixed Waste Treatment Project (at INEEL)

ANET Active Nitrogen Excitation Transfer

ANET American Network for Environmental Technologies

ANL Argonne National Laboratory

ANS Advanced Neutron Source (\$2.7 billion facility proposed for ORNL)

ANSI American National Standards Institute

AOTF Acousto-Optic Tunable Filter
APCE Air Pollution Control Equipment

APCI Atmospheric Pressure Chemical Ionization

API American Petroleum Institute or Application Programming Interface

APNEA Active & Passive Neutron Examination and Assay (system)

APSF Actinide Packaging and Storage Facility (at the Savannah River Site)

APTI Advanced Power Technologies, Inc.

As Arsenic

ARA Applied Research Associates, Inc.

ARARs Applicable or Relevant and Appropriate Requirements

AREAL Atmospheric Research and Exposure Assessment Laboratory

(an EPA laboratory at Research Triangle Park, NC)

ASCE American Society of Civil Engineers

ASME American Society of Mochanical Eng

ASME American Society of Mechanical Engineers
ASTM American Society for Testing Materials

ASV Anodic Stripping Voltammetry
ATG Advanced Technology Group
ATM Asynchronous Transfer Mode

AVIRIS Airborne Visible/Infrared Imaging Spectrometer

AVLIS Atomic Vapor Laser Isotope Separation

AVS Application Visualization System

AWG Acoustic Wave Guide

Ba Barium

BACT Best Available Control Technology

BAR Bulk Acoustic Resonator

BCL Battelle Columbus Laboratories

BDAT Best Demonstrated Available Technology

Be Beryllium

BEMR Baseline Environmental Management Report (EM's baseline approach and costs, a

report developed in response to a Congressional requirement)

bgs below ground surface
BHC Bechtel Hanford Company
BHI Bechtel Hanford Incorporated
BIF Boiler and Industrial Furnace (EPA)
BLM Bureau of Land Management
BNL Brookhaven National Laboratory
BOD Biochemical Oxygen Demand

BRAC Base Realignment and Closure (Commission) (DoD)

BTAG Biological Technical Assistance Group (EPA)
BTEX Benzene, Toluene, Ethylbenzene, Xylene

Ca Calcium

CAA Chemical Analysis Automation and Clean Air Act

CAAA Clean Air Act Amendments (of 1990)

CAALS Consortium on Automated Analytical Laboratory Systems

CAI Controlled Air Incinerator (one at LANL)
CaIEPA California Environmental Protection Agency
CAMU Corrective Action Management Unit (EPA)

CATD Center for Advanced Technology Development (at Iowa State University)

CCD Charge Coupled Device

Cd Cadmium

CDI Canyon Disposition Initiative

CDIF Component Development and Integration Facility

CEM Continuous Emission Monitor

CEPOD Catalyzed Electrolytic Plutonium Oxide Dissolution

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act of 1980, also

known as Superfund: Amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA). Addresses the cleanup of inactive and abandoned

hazardous waste sites.

CERFA Community Environmental Response Facilitation Act
CETRED Combustion Emissions Technical Resource Document

CFAST Center for Field Analytical Studies and Technologies (Tufts University)

CFEST Coupled Fluid, Energy, and Solute Transport (computer code)

CFR Code of Federal Regulations

CGA Cylinder Gas Audit (for emission monitors)

CH Contact Handled (packaged TRU waste whose external surface dose rate does not

exceed 200 mrem per hour)

CHC Chlorinated Hydrocarbons

Ci Curie

CICO Cost-Integrated Contractor Order

CIF Consolidated Incineration Facility (a rotary kiln incinerator with wet/dry offgas treatment

and integral ash handing/treatment capability at the DOE Savannah River Site)

CKRC Cement Kiln Recycling Coalition
CLP Contract Laboratory Program

Cm Curium

CMA Chemical Manufacturers Association

CMS Corrective Measure Study -- study, under RCRA, to develop and evaluate corrective

measures and recommend the final corrective measure.

CMST-CP Characterization, Monitoring, and Sensor Technology - Crosscutting Program

CMW Charles Machine Works Inc.

CNF Central Neutralization Facility (Oak Ridge)

CoC Certification of Compliance (EPA)

COI Contaminant of Interest
COTS Commercial-Off-The-Shelf
CPS Cone Penetrometer System
CPT Cone Penetrometer Test

Cr Chromium

CRADA Cooperative Research and Development Agreement

CRREL Cold Region Research and Engineering Laboratory (Hanover, NH)

CRWI Coalition for Responsible Waste Incineration

Cs Cesium

CSAMT Controlled Source Audiofrequency Magnetotelluric

CSCT Consortium for Site Characterization Technology (EPA/DOE/DoD)

CSTP Conceptual Site Treatment Plan

CT Computed Tomography

CVAAS Cold Vapor Atomic Absorption Spectrometry

CVD Chemical Vapor Deposition

CWA Clean Water Act

CWC Chemical Warfare Convention

DART Distributed Acoustic Reflection Transducer

DAS Deputy Assistant Secretary

DAWM Dual Arm Work Module (robotics program)

D&D Deactivation and Decommissioning

DDE Dynamic Data Exchange

DDFA Deactivation and Decommissioning Focus Area
DERA Defense Environmental Restoration Account

DIA Defense Intelligence Agency

DIAL Diagnostic Instrumentation and Analysis Laboratory (Mississippi State University)

DNA Defense Nuclear Agency

DNAPL Dense Non-Aqueous Phase Liquids
DNFSB Defense Nuclear Facilities Safety Board

DNS Domain Name Service

DOAS Differential Optical Absorption Spectrometry

DOC Department of Commerce
DoD Department of Defense
DOE Department of Energy
DOI Department of Interior

DOIT Committee to Develop On-Site Innovative Technologies

dpm Disintegrations Per Minute

DQOs Data Quality Objectives: Statements that specify the data needed to support decisions

regarding remedial response activities.

DRE Destruction and Removal Efficiency

DRO Diesel Range Organics dscm dry standard cubic meter

DSITMS Direct Sampling Ion Trap Mass Spectrometry

DSTP Draft Site Treatment Plan

DSWA Defense Special Weapons Agency

DWPF Defense Waste Processing Facility (vitrification plant)

EDE Effective Dose Equivalent
EDTA Ethylenediamine tetraacetic acid
EE/CA Engineering Evaluation / Cost Analysis

EES Excitation Emission Spectra

EEGS Environmental and Engineering Geophysical Society

EG&G Edgerton, Germeshausen, and Grier, Inc.

EIC EIC Inc.

EIS Environmental Impact Statement
ELISA Enzyme-Linked Immuno-Sorbent Assay

EM Office of Environmental Management, U.S. Department of Energy

EMAB Environmental Management Advisory Board

EMB Emissions Measurement Branch

**EML** Environmental Measurements Laboratory (DOE, New York) **EMSL-LV** Environmental Monitoring Systems Laboratory, Las Vegas

**EMSP EM Science Program** 

Environmental Measurement While Drilling **EMWD** 

**Electrochemical Noise** ΕN

**EnTICE** Environmental Technology Innovation, Commercialization, and Enhancement (EPA

Program)

**Environmental Protection Agency** EPA

**Epcot** Walt Disney World/Epcot Center, Orlando, FL **EPIC Environmental Photographic Interpretation Center** 

Electric Power Research Institute **EPRI** Office of Environmental Restoration ER **Expedited Response Action ERA** Extended Reach End Effector

**ERIM** Environmental Research Institute of Michigan

**Electrical Resistance Tomography** ERT **ESC Expedited Site Characterization Environment Safety and Health** ES&H ESI **Expanded Site Investigation** 

E-SMART Environmental Systems Management, Analysis, and Reporting NeTwork

(open standard for sensors - under development by General Atomics for the U.S. DoD)

**ESP** Electrostatic Precipitator or Extended Sludge Processing

**ESTCP** Environmental Security Technology Certification Program (DoD)

Environmental Technology Initiative - EPA ETI

Electron Volt eV

**EXAFS** Extended X-ray Absorption Fine Structure

Furnace Atomization Nonthermal Emission Source (or Spectrometry) **FANES** 

Federal Acquisition Regulation(s) FAR(s)

Federal Coordinating Council for Science, Engineering and Technology **FCCSET** 

**FCF** Fuel Conditioning Facility (at ANL-W)

Fluor Daniel Hanford **FDH** 

Fe Iron

**EREE** 

**FET** Field Effect Transistor

**FETC** Federal Energy Technology Center

**FFCA** Federal Facility Compliance Act (enacted 6 October 1992)

**FFEO** Federal Facilities Enforcement Office (EPA)

Fissile Gram Equivalent FGE Flow Injection Analysis FIA Flame Ionization Detector FID

Flow Injection Mercury System (Perkin Elmer) **FIMS** 

FIT Field Investigation Team Florida International University FIU

Frequency Modulation FΜ

Fuel Manufacturing Facility (at ANL-W) **FMF** 

Finding of No Significant Impact (issued by DOE) **FONSI** 

Flexural Plate Wave FPM

Federal Remediation Technologies Roundtable **FRTR** 

FS Feasibility Study

**FSP** Field Sampling Plan: Defines in detail the sampling and data gathering activities to be

used at a site (see SAP).

FSU Former Soviet Union FTAM Flow Through Alpha Monitor

Federal Trade Commission FTC

Fourier Transform Infrared Spectroscopy **FTIR** 

File Transfer Protocol **FTP** 

FY Fiscal Year

GAAT Gunite and Associated Tank (ORNL Project)

GAO U.S. General Accounting Office

GC Gas Chromatography

GC-MS Gas Chromatography - Mass Spectrometry

Ge Germanium

GFAAS Graphite Furnace Atomic Absorption Spectrometry

GFC Gas Filter Correlation (multiple wavelength infrared spectroscopy)

gfp green fluorescent protein

GIF Graphics Interchange File (format)
GIS Geographic Information System

GMT Geiger-Mueller Tube

GISC Generic Intelligent Systems Control (computer control system for robotics)

GNAT Gamma-Neutron Assay Technique

GPR Ground Penetrating Radar

GPRA Government Performance and Results Act

GPS Global Positioning System
GRI Gas Research Institute
GRO Gasoline Range Organics
GRS Gamma Ray Spectrometer

GTCC Greater than Class C (NRC Low Level Radioactive Waste classification)

(See 10 CFR 61, Jan 1, 1990).

HAP Hazardous Air Pollutant

HAPS Hazardous Air Pollution Standards (EPA's)

HAZWOPER Hazardous Waste Operations and Emergency Response

HDD Horizontal Directional Drilling

He Helium

HEPA High Efficiency Particulate Air (filter)

HEU Highly Enriched Uranium
HEUN Highly Enriched Uranyl Nitrate

HFEF Hot Fuel Examination Facility (at ANL-W)
HFIR High Flux Isotope Reactor (at ORNL)

Hg Mercury

HLW High-Level Waste

HOPG Highly Oriented Pyrolytic Graphite

HRS Hazard Ranking System (EPA): The primary basis for selecting sites for the NPL.

HSP Health and Safety Plan
HTI Hanford Tank Initiative
HTML Hypertext Markup Language
HTO Hydrothermal Oxidation
HTTP Hypertext Transport Protocol
HWI Hazardous Waste Incinerator

HWIR Hazardous Waste Identification Rule (EPA proposed)

IAEA International Atomic Energy Agency

IAETL International Association of Environmental Testing Laboratories

IAG Interagency Agreement or Industry Affiliates Group

IBA Integrated Biological Assessment

IC Ion Chromatography

ICERVS Interactive Computer Enhanced Remote Viewing System

ICO International Commission for Optics

ICP Inductively Coupled Plasma

ICP-AES Inductively Coupled Plasma-Atomic Emission Spectrometry

ICP-MS Inductively Coupled Plasma-Mass Spectrometry

ICPP Idaho Chemical Processing Plant

ICRP International Commission on Radiological Protection

ICT Integrated Contractor Team
IDA Institute for Defense Analysis
IDAD Intensified Diode Array Detector
IDC Interagency DNAPL Consortium
IDW Investigation-Derived Waste

IETO Interagency Environmental Technology Office IGRIP Interactive Graphic Robotic Instruction Program

IH Industrial Hygiene IMA Immunoassay

IMS Ion Mobility Spectrometry

IMSS Integrated Monitoring and Surveillance System

INEEL Idaho National Engineering and Environmental Laboratory

INMM Institute of Nuclear Materials Management

INTEC Idaho Nuclear Engineering and Technology Center

IPA Intergovernmental Personnel Act (governs personnel assignments)
IPAN Imaging Passive & Active Neutron (non-destructive assay technique)
IPEP Integrated Performance Evaluation Program (a part of the NAMP)

IPR In-Process Review

IR Infrared

IRB Internal Review Budget

IRF EPA Incineration Research Facility - A pilot-scale rotary kiln incineration system (at

Acurex Environmental, Jefferson, Arkansas)

IRIS Integrated Risk Information System

IRP Installation Restoration Program (Camp Edwards)

ISE Ion Selective Electrode
ISV In Situ Vitrification

ITRC Interstate Technical Regulatory Cooperation (WGA DOIT Committee Working Group)

ITRD Innovative Treatment and Remediation Demonstration

ITSR Innovative Technology Summary Report

IUPAP International Union of Pure and Applied Physics

IWG Interface Working Group

IWPF Idaho Waste Processing Facility (for treatment of alpha-contaminated waste)

IWTF Idaho Waste Treatment Facility
IWTP Idaho Waste Treatment Program

JCCEM Joint Coordinating Committee for Environmental Restoration and Waste Management

K Potassium

KAPL Knolls Atomic Power Laboratory

K-edge Absorption Transition in X-ray Transmission Measurements

LAER
LOWEST Achievable Emission Rate
LAMPF
LOS Alamos Meson Physics Facility
LANL
LOS Alamos National Laboratory
LASS
Laser Spark Spectroscopy

LAW Low-Activity Waste

LBNL Lawrence Berkeley National Laboratory

LC Liquid Chromatography
LDR Land Disposal Restrictions

LDRD Laboratory Directed Research and Development

Lead Agency The agency having primary responsibility and authority for planning and executing the

remediation at a site.

LEL Lower Explosive Limit

LESAT Lockheed Environmental Systems and Technologies Company

LEU Low Enriched Uranium

LIBS Laser-Induced Breakdown Spectroscopy

LIF Laser-Induced Fluorescence

LIFI Laser-Induced Fluorescence Imaging
LIFS Laser Induced Fluorescence Spectroscopy
LIMS Laboratory Information Management System
LITCO Lockheed Idaho Technologies Company

LLC Limited Liability Corporation

LLNL Lawrence Livermore National Laboratory

LLW Low Level Waste

LMER Lockheed Martin Energy Research (Corp)
LMES Lockheed Martin Energy Systems (Corp)
LMHC Lockheed Martin Hanford Corporation

LMITCO Lockheed Martin Idaho Technology Company
LMSC Lockheed Martin Specialty Components (Corp)
LNAPL Light Non-Aqueous Phase Liquids (LNAPLs)

LOD Limit of Detection

LOGS Laser Optogalvanic Spectrometry

LOI Loss on Ignition

LRAD Long Range Alpha Detector

LSDP Large Scale Demonstration Project(s)
LSER Linear Solvation Energy Relationships
LTTD Low Temperature Thermal Desorption

LW Lamb Wave

M Molar

MACS Mobile Automated Characterization System (robotics)

MACT Maximum Achievable Control Technology

MARS Mobile Analysis Reconnaissance System (for Hanford HLW tanks) – a joint effort of the

Hanford Corporate Planning Board including DOE-RL, WHC, PNL, KEH, NIS, Inc., and

**CPAC** 

MARSSIM Multi-Agency Radiation Site Survey and Investigation Manual

MAWS Minimum Additive Waste Stabilization

MCA Multichannel Analyzer

MCL Maximum Contaminant Level: Established under the Safe Drinking Water Act.

MCLG Maximum Contaminant Level Goal: Established under the Safe Drinking Water Act.

MCNP Monte Carlo Neutron Photon (software code)
MCT Mercury Cadmium Tellurium Radiation Detector

MDA Minimum Detectable Activity

MDLEST Mobile Demonstration Laboratory for Environmental Screening Technologies

MEAS Multiwavelength Emission Absorption Spectroscopy (a DIAL project)

MEO Mediated Electrochemical Oxidation

MEPAS Multimedia Environmental Pollutant Assessment System

Mg Magnesium

MGP Manufactured Gas Plant

MIME Multipurpose Internet Mail Extensions

MINATOM Ministry of Atomic Energy of the Russian Federation

MIP Microwave Induced Plasma

3M Minnesota Mining and Manufacturing Corporation

MMR Massachusetts Military Reserve, Cape Cod, Massachusetts (Camp Edwards)

MMSC Martin Marietta Specialty Components

Mn Manganese

MOU Memorandum of Understanding

MPRSA Marine Protection Research and Sanctuaries Act

MRI Midwest Research Institute, Kansas City

MRS Monitored Retrievable Storage

MS Mail Stop

MSO Molten Salt Oxidation
MSU Mississippi State University
MSW Municipal Solid Waste
MTU Mobile Treatment Unit

MVST Melton Valley Storage Tanks
MWC Municipal Waste Combustor
MWFA Mixed Waste Focus Area
MWIR Mixed Waste Inventory Report

MWMF Mixed Waste Management Facility (Livermore)

MWTP Mixed Waste Treatment Project
MYPP Multi-Year Program Plan
MYWP Multi-Year Work Plan

Na Sodium

NAA Neutron Activation Analysis

NAAQS National Ambient Air Quality Standards
NAC Nitrate to Ammonia and Ceramic (process)

NADH Nicotinamide Adenine Dinucleotide (H indicating the reduced form)

NAG Nitrate to Ammonia and Glass (process)
NAIC National Association of Insurance Companies
NaI(TI) Sodium-Iodide (thallium-doped) Spectrometer
NAMP National Analytical Management Program (EM)

NAPL Non-Aqueous Phase Liquid
NAS National Academy of Science

NASA National Aeronautics and Space Administration NAWTEC North American Waste-to-Energy Conference

NCEPI National Center for Environmental Publications and Information (US EPA)
NCP National Oil and Hazardous Substances Pollution Contingency Plan:

also National Contingency Plan

NCRP National Council on Radiation Protection and Measurements

NCTR National Center for Toxicological Research

NDA Non-Destructive Assay
NDE Non-Destructive Evaluation
NDIR Non-Dispersive Infrared

NEPA National Environmental Policy Act NERI Northeast Research Institute

NERL National Exposure Research Laboratory (EPA)

NESHAPs National Emissions Standard for Hazardous Air Pollutants (EPA)

NESTC National Environmental Science and Technology Council (established by EM)

NFA No Further Action

NGA National Governors' Association

NIEHS National Institute of Environmental Health Sciences

NIM Nuclear Instrument Module

NIOSH National Institute for Occupational Safety and Health

NIR Near Infrared

NIST National Institute of Standards and Technology

NJIT New Jersey Institute of Technology

NLT Not Later Than

NMFA Nuclear Materials Focus Area (Formerly Plutonium Focus Area)

NMR Nuclear Magnetic Resonance

NMSO Nuclear Materials Stabilization Office (a.k.a. NMSTG, EM-66)

NMSTG Nuclear Materials Stabilization Task Group

NNPP Naval Nuclear Propulsion Program

NO3- nitrate NO2- nitrite No. Number NOI Notice of Intent

NORM Naturally Occurring Radioactive Materials

NPDES National Pollutant Discharge Elimination System (of the Clean Water Act)
NPL National Priorities List: A list of sites identified for remediation under CERCLA.

NRC Nuclear Regulatory Commission or National Research Council
NREL National Renewable Energy Laboratory (DOE, Golden, Colorado)

NRMRL National Risk Management Research Laboratory (EPA)

NSTC National Science and Technology Council (A cabinet-level council, chaired by the

President, charged with coordinating science, space, and technology policies throughout

the federal government.)

NTCR Non-Time-Critical Removal
NT3 or NTTT Nonthermal Treatment Technology

NTW National Technical Workgroup (on Mixed Waste Thermal Treatment)

NWCF New Waste Calcining Facility (at INEEL)

OAQPS Office of Air Quality Planning and Standards (EPA)

OAT Options Analysis Team (DOE for FFCA mixed waste treatment plans)

OCRWM Office of Civilian Radioactive Waste Management (DOE)

OD Outside Diameter

ODBC Open Database Connectivity (Microsoft)
OEM Original Equipment Manufacturer
OGI Oregon Graduate Institute

OH- Hydroxide

OIRM Office of Integrated Risk Management

OLE Object Linking and Embedding OMA Optical Multichannel Analyzer

ORISE Oak Ridge Institute for Science and Education

ORNL Oak Ridge National Laboratory
ORP Oxidation-Reduction Potential
OSC On-Scene Coordinator (EPA)

OSHA Occupational Safety and Health Administration

OST EM Office of Science and Technology

OSTP Office of Science and Technology Policy (cabinet level advisor to president)

OSW Office of Solid Waste (EPA)

OSWER Office of Solid Waste and Emergency Response (EPA)

OTD Office of Technology Development

OVM Organic Vapor Meter

PACT Plasma Arc Centrifugal Treatment
PAHs Polynuclear Aromatic Hydrocarbons

PAN Passive/Active Neutron (non-destructive assay technique)

Pb Lead

PBMS Performance-Based Measurement System (EPA)

PBS Project Baseline Summary
PC Personal Computer
PCBs Polychlorinated Biphenyls

PCDDs Polychlorinated Dibenzo-p-Dioxins PCDFs Polychlorinated Dibenzofurans

PCE Perchloroethylene

PCF Plasma Centrifugal Furnace

PCI Peripheral Component Interconnect

PCPs Pentachlorophenols

PCT Patent Cooperation Treaty or Product Consistency Test

PDA Photodiode Array

PDF Portable Document Format

PDS Processor-Direct Slot

PEIS Programmatic Environmental Impact Statement

PEL Permissible Exposure Limit
PEM Personal Exposure Monitor
PFN Prompt Fission Neutron

PFNA Pulsed Fast Neutron Analysis (being developed by SAIC for INEL)

PFPE Perfluoropolyether(s)

PGNAA Prompt Gamma Neutron Activation Analysis
PHMC Project Hanford Management Contract

PHP Plasma Hearth Process

PICs Products of Incomplete Combustion

PID Photo Ionization Detector

PINS Portable Isotopic Neutron Spectroscopy (chemical assay system)

PIX Alcohol Micro-Injection/Extraction Test

PIXE Proton Induced X-Ray Emission Spectroscopy

PLC Programmable Logic Controller

PM Particulate Matter
PMT Photomultiplier Tube

PNNL Pacific Northwest National Laboratory
POHC Principal Organic Hazardous Constituent

POL Petroleum, Oil, and Lubricants POTS Plain Old Telephone Service

POTW Publicly Owned Treatment Works (Clean Water Act of 1977)

ppb parts per billion

PPE Personal Protective Equipment

ppm parts per million PPP Point-to-Point Protocol

PPPL Princeton Plasma Physics Laboratory

PRDA Program Research and Development Announcement

PSD Prevention of Significant Deterioration

PSTP Proposed Site Treatment Plan (mixed waste)

PTC Permit to Construct
PTO Permit to Operate

Pu Plutonium

PuFA Plutonium Focus Area

PUREX Plutonium-Uranium Extraction

PuSPS Plutonium Stabilization and Packaging System

PVC polyvinyl chloride

QA Quality Assurance

QAPP Quality Assurance Project Plan

QC Quality Control

QCM Quartz Crystal Microbalance QFD Quality For Deployment

R Roentgen

R&D Research and Development

RA Remedial Action

RACT Reasonably Available Control Technology

rad Radiation Absorbed Dose

RAPIC Remedial Action Program Information Center (DOE EM)

RCI Rapid Commercialization Initiative

RCRA Resource Conservation and Recovery Act -- Deals with active hazardous waste sites.

RCRA Metals Ag, As, Ba, Be, Cd, Cr (hexavalent), Hg, Pb, Ni, Sb, Se, Tl (thallium)

RD Remedial Design RDF Refuse-Derived Fuel RDT Regional Decision Team (EPA)

RDX hexahydro-1,3,5-trinitro-1,3,5-triazine – an explosive

rem Roentgen Equivalent Man

RESL Radiological and Environmental Sciences Laboratory (Idaho)

RFA Request for Assistance

RfD Reference Dose: An estimate (with uncertainty spanning perhaps an order of magnitude)

of a daily exposure to the human population (including sensitive subgroups) that is likely

to be without appreciable risk of deleterious effects during a lifetime.

RFETS Rocky Flats Environmental Technology Site

RFH Radio Frequency Heating RFI RCRA Facility Investigation

RH Remote Handled (Packaged TRU waste whose external surface dose rate exceeds 200

mrem per hour.)

RI Remedial Investigation

RI/FS Remedial Investigation/Feasibility Study (Under CERCLA - processes used to assess site

conditions and evaluate alternatives to the extent necessary to select a remedy)

RKIS Rotary Kiln Incinerator Simulator (Research Triangle Park, NC)

RLS Rapid Liquid Sampler

RMI Reactive Metals Inc. (Uranium extrusion site near Ashtabula, Ohio)

RMRS Rocky Mountain Remedial Services (formed by BNFL and Morrison-Knudsen)

ROA Research Opportunity Announcement

ROD Record of Decision: Documents selection of cost-effective Superfund-financed remedy.

ROSEs Residual Organic Stack Emissions

ROST Rapid Optical Screening Tool (trademark of LORAL Corp)

RPM Remedial Project Manager: The project manager for the lead Federal Agency

RREL Risk Reduction Engineering Laboratory (EPA, Cincinnati)

RSM Radioactive Scrap Material

RTDF Remedial Technology Development Forum (a consortium of federal agencies and private

companies that promotes the sharing of information and collaboration in environmental

technology demonstrations)

RTDP Robotics Technology Development Program

RTF Remote Treatment Facility (Idaho Remote-Handled Mixed Waste Treatment facility)

RTG Radioisotopic Thermoelectric Generator RTP Research Triangle Park (North Carolina)

RTR Real-Time Radiography

SACM Superfund Accelerated Cleanup Model

SAFER Streamlined Approach for Environmental Restoration

SAI Strategic Alignment Initiative (DOE)

SAIC Scientific Application International Corporation

SAIC STAR Science and Technology Applications Research facility

SAM Site Assessment Manager (EPA)
SAP Sampling and Analysis Plan
SAW Surface Acoustic Wave

SBIR Small Business Innovation Research (program)

SCAPS Site Characterization and Analysis Penetrometer System

SCFA Subsurface Contaminants Focus Area

SCR Selective Catalytic Reduction SDWA Safe Drinking Water Act

SEA Science and Engineering Associates, Inc. SEC Securities and Exchange Commission

SEG Scientific Ecology Group, Inc. (wholly owned Westinghouse subsidiary)

SERDP Strategic Environmental Research and Development Program (Established under the

DoD Authorization Bill.)

SGFET Suspended Gate Field Effect Transistor

SGS Segmented Gamma Scanner

SH Shear Horizontal

SH APM Shear Horizontal Acoustic Plate Mode

Si Silicon

SI Site Investigation

SIMON Semi-Intelligent Mobile Observing Navigator (robotics)

SIMS Secondary Ion Mass Spectrometry

SITE Superfund Innovative Technology Evaluation Program (EPA)

SLIP Serial Line Internet Protocol
SMTP Simple Mail Transfer Protocol
SMTS Slurry Monitoring Test System
SNCR Selective Non-Catalytic Reduction

SNF Spent Nuclear Fuel

SNL Sandia National Laboratories
SNM Special Nuclear Material

SNMP Simple Network Management Protocol

SOEH Society for Occupational and Environmental Health

SOP Standard Operating Procedures SSEB Southern States Energy Board

SOW Statement of Work
SPE Solid Phase Extraction

SPHEM Superfund Public Health Evaluation Manual

SRS Savannah River Site

SRTC Savannah River Technology Center

SS&C Sand, slag, and crucible SSAB Site Specific Advisory Board

STAR Science and Technology Applications Research Center (an SAIC facility in Idaho Falls,

Idaho)

STEA Safeguard Technology Evaluation Area (at ANL-W)

STCG Site Technology Coordination Group

STEA Safeguard Technology Evaluation Area (at Argonne National Laboratory - W)

STL Special Technologies Laboratory

STOLS Surface Towed Ordnance Location System

STP Site Treatment Plan

STTR Small Business Technology Transfer (program)

SVE Soil Vapor Extraction

SVOA Semi-Volatile Organic Analyses

SW Solid Waste

SWAMI Stored Waste Autonomous Mobile Inspector (robotics)

SWANA Solid Waste Association of North America

SWB Standard Waste Box (for burial)

SWEPP Stored Waste Examination Pilot Plant (Idaho)
SWIFT Stored Waveform Inverse Fourier Transform
SWOP Specification for Web Offset Printers (a standard)

SWOT Strengths, Weaknesses, Opportunities, Threats (analysis)

SWSA Solid Waste Storage Area

TACOM Tank-automotive and Armaments Command (U.S. Army)

TAP Technology Action Plan
TASR Technical Area Status Report
TAT Technical Assistance Team

Tc Technetium
TCE Trichloroethylene
TCL Target Compound List
TCP Two-Color Pyrometry

TCIRP Two-Color Infrared Pyrometer (Pyrometry)
TCLP Toxicity Characteristic Leach Procedure

TCP/IP Transmission Control Protocol / Internet Protocol

TCV **Total Containment Vessel** 

2-D Two-Dimensional 3-D Three-Dimensional

TDGC/MS Thermal Desorption Gas Chromatography/Mass Spectrometry

TDL Tunable Diode Laser

**TDR** Time Domain Reflectrometry Probe

Te **Tellurium** 

TES Thermal Emission Spectroscopy

**TEVES** Thermally Enhanced Vapor Extraction System

Tanks Focus Area **TFA** Thin Film Resonator **TFR** Thin Film Transistor TFT

Tomographic Gamma Spectrometry (non-destructive assay technique) **TGS** 

Th **Thorium** 

TIFF Tagged Image File Format TIP **Technology Insertion Point** 

TΙ Thallium

TLV threshold limit value (maximum levels allowed in atmospheres to which healthy industrial

workers are exposed)

**TNT** Trinitrotoluene

TPH Total Petroleum Hydrocarbons Toxic Release Inventory TRI

Transient Test Reactor (Argonne National Laboratory West) **TREAT** 

Technology Reinvestment Project TRP

Total Recoverable Petroleum Hydrocarbons TRPH

Technology Resource Team TRT

Transuranic (TRU waste contains more than 100 nanoCuries/gram of alpha-emitting TRU

radionuclides with half-lives greater than 20 years.)

Task Sequence Control TSC **TSCA** Toxic Substances Control Act

**TSCAI** Toxic Substances Control Act Incinerator (a rotary kiln incinerator with wet offgas

treatment and limited solids/ash handling capability at DOE Oak Ridge site)

**TSG Technology Steering Group** TSS **Total Suspended Solids TST** Technology Support Team TTP Technical Task Plan

TÜV Technische ~~ German "Technical Inspection Agency"

TVS Transportable Vitrification System

TWA Time Weighted Average

Tank Waste Remediation System **TWRS** 

U Uranium

U (VI) Uranium +6 Valence Oxide ULPA Ultra Low Penetration Air (filter) **Uranium Mill Tailings Remedial Action UMTRA** Uniform Resource Locator (World Wide Web) URL

Underground Source of Drinking Water USDW

United States Enrichment Corporation (leases DOE enrichment plants) **USEC** 

USGS

U.S. Geological Survey

UTS Universal Treatment Standards (EPA for hazardous waste) (40 CFR 268.40)

IJV Ultraviolet

**UVB** Unterdruck-Verdampher-Brunnen (an in situ [in well)] groundwater remediation

technology that combines air-lift pumping and air stripping to clean aquifers contaminated

with VOCs - Roy F. Weston Inc./IEG Technologies Corporation)

**UXO Unexploded Ordnance**  VLF Very Low Frequency

VOC Volatile Organic Compound

VSL Vitreous State Laboratory (at Catholic University of America)

WAC Waste Acceptance Criteria

WAMIS Waste Assay Measurement Integration System

WAP Waste Analysis Plan WDC Whole Drum Counter

WEDF Waste Experimental Demonstration Facility (Idaho)
WERC Waste Management Education & Research Consortium
WERF Waste Experimental Reduction Facility (at INEEL)

WES Waterways Experiment Station (U.S. Army Corps of Engineers)

WESF Waste Encapsulation and Storage Facility (Hanford)

WET California Waste Extraction Test

WETO Western Environmental Technology Office, Butte, MT

WFO Work for Others

WGA Western Governors' Association
WIPP Waste Isolation Pilot Plant
WM Office of Waste Management

WMATC Waste Management Automated Technology Catalog

WPI Waste Policy Institute

WPRR Work Plan Revision Request

WRAP (Hanford) Waste Receiving and Processing (facility)

WSD&C Waste Stream Diagnostics and Control WSRC Westinghouse Savannah River Company

WTM Waste Type Manager WWW World Wide Web

XANES X-ray Absorption Near-Edge Spectroscopy

XAS X-ray Absorption Spectroscopy XPS X-ray Photoelectron Spectroscopy

XRD X-Ray Diffraction XRF X-Ray Fluorescence

Zn Zinc