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List of Acronyms

AEA	Atomic Energy Act of 1954	CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
AECL	Atomic Energy of Canada Limited		
AED	aerodynamic equivalent diameter	CFA	Central Facilities Area
AIRFA	American Indian Religious Freedom Act	CFR	Code of Federal Regulations
ALARA	as low as is reasonably achievable	CPP	Chemical Processing Plant
AMWTP	Advanced Mixed Waste Treatment Project	CWA	Clean Water Act of 1972, 1987
ANL–W	Argonne National Laboratory–West	D&D	decontamination and decommissioning
APSF	Actinide Packaging and Storage Facility	DBA	design basis accident
AQCR	Air Quality Control Region	DCS	Duke Engineering & Services, COGEMA Inc., and Stone & Webster
ARF	airborne release fraction	DNFSB	Defense Nuclear Facilities Safety Board
ARIES	Advanced Recovery Integrated Extraction System	DOC	U.S. Department of Commerce
AVLIS	Atomic Vapor Laser Isotope Separation	DoD	U.S. Department of Defense
		DOE	U.S. Department of Energy
		DOL	U.S. Department of Labor
		DOT	U.S. Department of Transportation
BEA	Bureau of Economic Analysis	DR	damage ratio
BEIR V	Report V of the Committee on the Biological Effects of Ionizing Radiations	DU PEIS	<i>Final Programmatic Environmental Impact Statement for Alternative Strategies for Long-Term Management and Use of Depleted Uranium Hexafluoride</i>
BIO	Basis for Interim Operation	DWPF	Defense Waste Processing Facility
BLM	Bureau of Land Management		
BNFL	British Nuclear Fuels		
BWR	boiling water reactor		
CAA	Clean Air Act		
CAB	Citizens Advisory Board		
CANDU	Canadian Deuterium Uranium (reactors)	EA	environmental assessment
CEQ	Council on Environmental Quality	EBR	Experimental Breeder Reactor (I or II)
		EIS	environmental impact statement
		EPA	Environmental Protection Agency

ES&H	environment, safety, and health	HHS	Department of Health and
ESTEEM	Education in Science, Technology, Energy, Engineering, and Math	HIGHWAY	Human Services (computer code for distances and populations along U.S. highways)
ETB	Engineering Test Bay	HLW	high-level waste
ETTP	East Tennessee Technology Park	HLWVF	high-level-waste vitrification facility
FAA	Federal Aviation Administration	HMIS	Hazardous Materials Information System
FDP	fluorinel dissolution process	HWTPF	Hazardous Waste Treatment and Processing Facility
FEMA	Federal Emergency Management Agency	HYDOX	hydride oxidation
FFCA	Federal Facility Compliance Agreement	IAEA	International Atomic Energy Agency
FFF	Uranium Fuel Fabrication Facility	ICPP	Idaho Chemical Processing Plant
FFT	Fast Flux Test Facility	ICRP	International Commission on Radiological Protection
FI	field investigation	ID DHW	Idaho Department of Health and Welfare
FM	Farm-to-Market (road)	INEEL	Idaho National Engineering and Environmental Laboratory
FMF	Fuel Manufacturing Facility	INRAD	Intrinsic Radiation
FMEA	failure modes and effects analysis	INTEC	Idaho Nuclear Technology and Engineering Center
FMEF	Fuels and Materials Examination Facility	IPE	Individual Plant Examination
FONSI	finding of no significant impact	ISC	Industrial Source Complex Model
FPF	Fuel Processing Facility	ISC3	Industrial Source Complex Model, Version 3
FPPA	Farmland Protection Policy Act	ISCST3	Industrial Source Complex Model, Short-Term, Version 3
FR	Federal Register	ISLOCA	interfacing systems loss-of-coolant accident
GAO	General Accounting Office	ITP	In-Tank Precipitation Process
GDP	gaseous diffusion plant		
GE	General Electric Company		
GENII	Generation II, Hanford environmental radiation dosimetry software system		
GPS	global positioning satellite		
HE	high explosive		
HEPA	high-efficiency particulate air (filter)		
HEU	highly enriched uranium		
HFEF	Hot Fuel Examination Facility		

LANL	Los Alamos National Laboratory	NPDES	National Pollutant Discharge
LCF	latent cancer fatality		Elimination System
LDR	Land Disposal Restrictions	NPH	natural phenomena hazard
LEU	low-enriched uranium	NPS	National Park Service
LLNL	Lawrence Livermore National Laboratory	NRC	U.S. Nuclear Regulatory Commission
LLW	low-level waste	NRU	National Research Universal
LOCA	loss-of-coolant accident	NTS	Nevada Test Site
LPF	leak path factor	NWCF	New Waste Calcining Facility
LWR	light water reactor	NWPA	Nuclear Waste Policy Act
		NWS	National Weather Service
M&H	Mason & Hanger Corporation		
MACCS2	Melcor Accident Consequence Code System (computer code)	ORIGEN	ORNL Isotope Generation and Depletion Code
MAR	material at risk	ORNL	Oak Ridge National Laboratory
MD	Office of Fissile Materials Disposition	ORR	Oak Ridge Reservation
MEI	maximally exposed individual	OSHA	Occupational Safety and Health Administration
MIMAS	Micronized Master		
MMI	Modified Mercalli Intensity	PBF	Power Burst Facility
MOX	mixed oxide	PEIS	programmatic environmental impact statement
NAAQS	National Ambient Air Quality Standards	PFP	Plutonium Finishing Plant
NAGPRA	Native American Graves Protection and Repatriation Act	PIE	postirradiation examination
NAS	National Academy of Science	PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
NCRP	National Council on Radiation Protection and Measurements	PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to 10 microns
NDA	nondestructive analysis		
NEPA	National Environmental Policy Act of 1969	PNNL	Pacific Northwest National Laboratory
NESHAPs	National Emissions Standards for Hazardous Air Pollutants	PRA	probabilistic risk assessment
NIOSH	National Institute of Occupational Safety and Health	PSD	prevention of significant deterioration
NOA	Notice of Availability	PUREX	Plutonium-Uranium Extraction (Facility)
NOAA	National Oceanic and Atmospheric Administration	PWR	pressurized water reactor
NOI	Notice of Intent	R&D	research and development

RADTRAN 4	(computer code: risks and consequences of radiological materials transport)	SDWA	Preservation Officer Safe Drinking Water Act, as amended
RANT	Radioactive Assay and Nondestructive Test	SEIS	supplemental environmental impact statement
RAMROD	Radioactive Materials Research, Operations and Demonstration	SHPO	State Historic Preservation Officer
RCRA	Resource Conservation and Recovery Act, as amended	SI	sealed insert
REA	regional economic area	SMC	Specific Manufacturing Complex
RF	respirable fraction	SNF	spent nuclear fuel
RfC	reference concentration	SNM	special nuclear material
RfD	reference dose	SPD	surplus plutonium disposition
RFETS	Rocky Flats Environmental Technology Site	SPD EIS	<i>Surplus Plutonium Disposition Environmental Impact Statement</i>
RFP	Request for Proposal	SPERT	Special Power Excursion Reactor Test
RIA	Reactivity Insertion Accidents	SRS	Savannah River Site
RIMS II	Regional Input-Output Modeling System II (computer code)	SSM PEIS	<i>Final Programmatic Environmental Impact Statement for Stockpile Stewardship and Management</i>
RISKIND	(computer code: risks and consequences of radiological materials transport)	SST/SGT	safe, secure trailer/SafeGuards Transport
ROD	Record of Decision	SWMU	solid waste management unit
ROI	region of influence	SWP 1	Service Waste Percolation
RMF	Radiation Measurements Facility		Pond 1
RWMC	Radioactive Waste Management Complex		
S/A	Similarity of Appearance (provision of Endangered Species Act)	TA	Technical Area
		TCE	trichloroethylene
		TNRCC	Texas Natural Resource Conservation Commission
SAR	safety analysis report	TPBAR-LTA	tritium-producing burnable absorber rod lead test assembly
SARA	Superfund Amendments and Reauthorization Act of 1986	TRA	technical risk assessment
SCDHEC	South Carolina Department of Health and Environmental Control	TRANSCOM	transportation tracking and communications system
SCE&G	South Carolina Electric & Gas Company	TRU	transuranic
SCSHPO	South Carolina State Historic	TRUPACT	TRU waste package transporter
		TSCA	Toxic Substances Control Act
		TSP	total suspended particulates

TVA	Tennessee Valley Authority	WPPSS	Washington Public Power Supply System
TWRS	tank waste remediation system	WROC	Waste Reduction Operations Complex
TWRS EIS	<i>Tank Waste Remediation System Final Environmental Impact Statement</i>	WSRC	Westinghouse Savannah River Company
UC	Regents of the University of California	ZPPR	Zero Power Physics Reactor
UFSAR	updated final safety analysis report		
USACE	U.S. Army Corps of Engineers		
USC	United States Code		
USEC	United States Enrichment Corporation		
USFWS	U.S. Fish and Wildlife Service		
UV	ultraviolet		
VOC	volatile organic compounds		
VORTAC	very high frequency omnidirectional range/tactical air navigation (facility)		
VRM	Visual Resource Management		
WAG 3	Waste Area Grouping 3		
WERF	Waste Experimental Reduction Facility		
WIPP	Waste Isolation Pilot Plant		
WM PEIS	<i>Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste</i>		
WNP-1	Washington Nuclear Plant-1		
WNP-2	Washington Nuclear Plant-2		

Chemicals and Units of Measure

°C	degrees Celsius (Centigrade)	min	minute
°F	degrees Fahrenheit	mph	miles per hour
µCi	microcurie	mrem	millirem
µg	microgram	MTHM	metric tons of heavy metal
µm	micrometer (micron)	MVA	megavolt-ampere
46°26'07"	46 degrees, 26 minutes, 7 seconds	MW	megawatt
Ci	curie	MWh	megawatt-hour
cm	centimeter	N ₂	nitrogen
CO	carbon monoxide	nCi	nanocurie
CO ₂	carbon dioxide	NO ₂	nitrogen dioxide
dB	decibel	pCi	picocurie
dBA	decibel, A-weighted	pcm/F	percent mille/Farenheit
DUF ₆	depleted uranium hexafluoride	pH	hydrogen ion concentration
eH	oxidation reduction potential	PM _{2.5}	particulate matter less than or equal to 2.5 µm in diameter
ft	foot	PM ₁₀	particulate matter less than or equal to 10 µm in diameter
ft ²	square foot	ppm	parts per million
ft ³	cubic foot	PuO ₂	plutonium dioxide
g	gram	rad	radiation absorbed dose
g	gravitational acceleration	rem	roentgen equivalent man
gal	gallon	s	second
GWD	gigawatt days (per ton)	SO ₂	sulfur dioxide
ha	hectare	t	metric ton
hr	hour (in compound units)	ton	short ton
in	inch	UF ₆	uranium hexafluoride
kg	kilogram	UO ₂	uranium dioxide
km	kilometer	yd	yard
km ²	square kilometers	yd ³	cubic yard
kV	kilovolt	yr	year (in compound units)
l	liter	wt %	weight percent
lb	pound		
m	meter		
m ²	square meter		
m ³	cubic meter		
mg	milligram		
mi	mile		

Metric Conversion Chart

To Convert Into Metric			To Convert Out of Metric		
If You Know	Multiply By	To Get	If You Know	Multiply By	To Get
Length					
inches	2.54	centimeters	centimeters	0.3937	inches
feet	30.48	centimeters	centimeters	0.0328	feet
feet	0.3048	meters	meters	3.281	feet
yards	0.9144	meters	meters	1.0936	yards
miles	1.60934	kilometers	kilometers	0.6214	miles
Area					
sq. inches	6.4516	sq. centimeters	sq. centimeters	0.155	sq. inches
sq. feet	0.092903	sq. meters	sq. meters	10.7639	sq. feet
sq. yards	0.8361	sq. meters	sq. meters	1.196	sq. yards
acres	0.40469	hectares	hectares	2.471	acres
sq. miles	2.58999	sq. kilometers	sq. kilometers	0.3861	sq. miles
Volume					
fluid ounces	29.574	milliliters	milliliters	0.0338	fluid ounces
gallons	3.7854	liters	liters	0.26417	gallons
cubic feet	0.028317	cubic meters	cubic meters	35.315	cubic feet
cubic yards	0.76455	cubic meters	cubic meters	1.308	cubic yards
Weight					
ounces	28.3495	grams	grams	0.03527	ounces
pounds	0.45360	kilograms	kilograms	2.2046	pounds
short tons	0.90718	metric tons	metric tons	1.1023	short tons
Temperature					
Fahrenheit	Subtract 32 then multiply by 5/9ths	Celsius	Celsius	Multiply by 9/5ths, then add 32	Fahrenheit

Metric Prefixes

Prefix	Symbol	Multiplication Factor
exa-	E	$1\ 000\ 000\ 000\ 000\ 000\ 000 = 10^{18}$
peta-	P	$1\ 000\ 000\ 000\ 000\ 000 = 10^{15}$
tera-	T	$1\ 000\ 000\ 000\ 000 = 10^{12}$
giga-	G	$1\ 000\ 000\ 000 = 10^9$
mega-	M	$1\ 000\ 000 = 10^6$
kilo-	k	$1\ 000 = 10^3$
hecto-	h	$100 = 10^2$
deka-	da	$10 = 10^1$
deci-	d	$0.1 = 10^{-1}$
centi-	c	$0.01 = 10^{-2}$
milli-	m	$0.001 = 10^{-3}$
micro-	μ	$0.000\ 001 = 10^{-6}$
nano-	n	$0.000\ 000\ 001 = 10^{-9}$
pico-	p	$0.000\ 000\ 000\ 001 = 10^{-12}$
femto-	f	$0.000\ 000\ 000\ 000\ 001 = 10^{-15}$
atto-	a	$0.000\ 000\ 000\ 000\ 000\ 001 = 10^{-18}$

