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## ACRONYMS AND ABBREVIATIONS

ACGIH	American Conference of Governmental Industrial Hygienists
AEA	<i>Atomic Energy Act</i>
AIHA	American Industrial Hygiene Association
ALARA	as low as reasonably achievable
AQCR	Air Quality Control Region
ASER	Annual Site Environmental Report
ATSDR	Agency for Toxic Substances and Disease Registry
BEIR	Biological Effects of Ionizing Radiation
BIO	Basis of Interim Operations
BWXT	BWX Technologies
CAA	<i>Clean Air Act</i>
CAVIS	Continuous Automated Vault Inventory System
CDC	Center for Disease Control
CEDE	committed effective dose equivalent
CEDR	Comprehensive Epidemiologic Data Resources
CEQ	Council on Environmental Quality
CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act</i>
CFC	chlorofluorcarbon
CFR	<i>Code of Federal Regulations</i>
CMTS	Central Mercury Treatment system
CRMP	Cultural Resources Management Plan
CSMO	Central Scrap Management Office
CTBT	Comprehensive Test Ban Treaty
D&D	decontamination and decommissioning
DARA	Disposal Area Remedial Actions
DCG	Derived Concentration Guideline
DoD	Department of Defense
DOE	Department of Energy
DOT	Department of Transportation
DP	Defense Programs
DSWM	Division of Solid Waste Management
EA	environmental assessment
EBE	evaluation basis earthquake
EDE	effective dose equivalent
EEMTS	East End Mercury Treatment System
EFPC	East Fork Poplar Creek
EIS	environmental impact statement
EM	Environmental Management
EMWMF	Environmental Management Waste Management Facility
EPA	Environmental Protection Agency
ERPG	Emergency Response Planning Guideline
ES&H	environment, safety and health
ETTP	East Tennessee Technology Park (formerly the K-25 Site)
FFA	Federal Facility Agreement
FFCA	<i>Federal Facility Compliance Act or Agreement</i>
FONSI	finding of no significant impact
FR	<i>Federal Register</i>
FY	fiscal year
HAP	hazardous air pollutants

HEPA	high-efficiency particulate air
HEU	highly enriched uranium
HF	hydrogen fluoride
HI	hazard index
HQ	hazard quotient
HVAC	heating, ventilation, and air conditioning
IAEA	International Atomic Energy Agency
ICRP	International Commission on Radiological Protection
IRIS	Integrated Risk Information System
KOH	potassium hydroxide
LCF	latent cancer fatality
LDR	land disposal restrictions
LLW	low level waste
LMES	Lockheed Martin Energy Systems, Inc.
LOAEL	lowest observed adverse effect level
LOS	Level-of-Service
MACCS	MELCOR Accident Consequence Code System
MAR	material at risk
MEI	maximally exposed individual
MMES	Martin Marietta Energy Systems, Inc.
MSDS	Material Safety Data Sheet
MSL	mean sea level
NAAQS	National Ambient Air Quality Standards
NABIR	Natural and Accelerated Bioremediation Research
NDA	nondestructive assay
NE	Office of Nuclear Energy, Science and Technology
NEPA	<i>National Environmental Policy Act</i>
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NIOSH	National Institute for Occupational Safety and Health
NN	Nuclear Nonproliferation and National Security
NOAEL	no observed adverse effect level
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NTS	Nevada Test Site
ORNL	Oak Ridge National Laboratory
ORO	Oak Ridge Operations
ORR	Oak Ridge Reservation
OSHA	Occupational Safety and Health Administration
PC	Performance Categories
PEIS	programmatic environmental impact statement
PEL	permissible exposure limit
PIDAS	Perimeter Intrusion, Detection, and Assessment System
PSA	Project-Specific Analysis
PSD	Prevention of Significant Deterioration
R&D	research and development
RCRA	<i>Resource Conservation and Recovery Act</i>
REL	recommended exposure limit
RfC	Reference Concentration
RfD	Reference Dose
RI/FS	remedial investigation/feasibility study

ROD	Record of Decision
ROI	region of influence
S&D	storage and disposition
S&M	surveillance and maintenance
SARA	<i>Superfund Amendments and Reauthorization Act</i>
SGT	safe guarded transport
S-HEU	surplus highly enriched uranium
SHPO	State Historic Preservation Officer
SNM	special nuclear material
SNS	Spallation Neutron Source
SSM	stockpile stewardship and management
STEL	short-term exposure limit
START	Strategic Arms Reduction Treaty
SST	safe-secure trailers
SWEIS	site-wide environmental impact statement
SWMU	solid waste management unit
TCA	Tennessee Codes Annotated
TDEC	Tennessee Department of Environment and Conservation
TEEL	temporary emergency exposure limit
TEV	threshold emission values
TI	transportation index
TLV	threshold limit value
TRU	transuranic
TSCA	<i>Toxic Substances Control Act</i>
TSR	Tennessee State Route
TVA	Tennessee Valley Authority
TWA	time weighted average
TWRA	Tennessee Wildlife Resources Agency
UCNI	Unclassified Controlled Nuclear Information
UEFPC	Upper East Fork Poplar Creek
USACE	United States Army Corps of Engineers
U.S.C	United States Code
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compound
VRM	Visual Resources Management
Y-12	Oak Ridge Y-12 National Security Complex
WETF	West End Treatment Facility
WIPP	Waste Isolation Pilot Plant

## **CHEMICALS AND UNITS OF MEASURE**

ACN	acetonitrile
AHF	anhydrous hydrogen fluoride
BTEX	benzene, toluene, ethylbenzene, and xylenes
Bq	Becquerel
C	Celsius
Ci	curie
CCl <sub>4</sub>	carbon tetrachloride
cm	centimeters
CFC	chlorofluorocarbons
CO	carbon monoxide
dB	decibel
dBA	decibel A-weighted
DCE	1, 2-dichloroethylene
F	Fahrenheit
ft	feet
ft <sup>2</sup>	square feet
ft <sup>3</sup>	cubic feet
ft <sup>3</sup> /s	cubic feet per second
g	grams
G	acceleration due to gravity
gal	gallons
GPD	gallons per day
gpm	gallons per minute
GPY	gallons per year
ha	hectares
HF	hydrogen flouride
hr	hour
in	inches
kg	kilograms
km	kilometers
km <sup>2</sup>	square kilometers
KOH	potassium hydroxide
kV	kilovolts
kVA	kilovolt-ampere
kW	kilowatts
kWh	kilowatt hours
L	liters
lb	pounds
Li	lithium
LiD	lithium deuteride
LiH	lithium hydride
LiO	lithium oxide
m	meters
m <sup>2</sup>	square meters
m <sup>3</sup>	cubic meters
m/s	meters per second
Mbps	million bits per second
Mbtu	million British thermal unit
mCi	millicuries (one-thousandth of a curie)

mCi/mL	millicuries per milliliter
mg	milligram (one-thousandth of a gram)
mg/L	milligrams per liter
MGD	million gallons per day
MGY	million gallons per year
mi	miles
mi <sup>2</sup>	square miles
MLD	million liters per day
MLY	million liters per year
mph	miles per hour
mrem	millirem (one-thousandth of a rem)
Mscf	million standard cubic feet
MVA	megavolt-ampere
MW	megawatt
MWe	megawatt electric
MWh	megawatt hour
MWt	megawatt thermal
NaK	sodium potassium
NaOCl	sodium hypochlorite
NaOH	sodium hydroxide
nCi	nanocurie (one-billionth of a curie)
nCi/g	nanocuries per gram
NO <sub>2</sub>	nitrogen dioxide
NOX	nitrogen oxides
O <sub>3</sub>	ozone
Pb	lead
PCB	polychlorinated biphenyl
PVC	polyvinyl chloride
pCi	picocurie (one-trillionth of a curie)
pCi/L	picocuries per liter
PM <sub>10</sub>	particulate matter (less than 10 microns in diameter)
ppb	parts per billion
ppm	parts per million
psig	pounds per square inch gage
Ra	radium
rem	roentgen equivalent man
s	seconds
scf	standard cubic feet
scfd	standard cubic feet per day
scfm	standard cubic feet per minute
SO <sub>2</sub>	sulfur dioxide
Sv	sievert
T	short ton
t	metric tons
TATB	triaminotinitrobenzene
TC	technetium
TCA	1, 1, 1-trichloroethane
TCE	trichloroethylene
Th	thorium
TNT	trinitrotoluene
UF <sub>4</sub>	uranium tetrafluoride

UF <sub>6</sub>	uranium hexafluoride
yd <sup>3</sup>	cubic yards
yr	year
$\mu\text{Ci}$	microcurie (one-millionth of a curie)
$\mu\text{Ci/g}$	microcuries per gram
$\mu\text{g}$	microgram (one-millionth of a gram)
$\mu\text{g/kg}$	micrograms per kilogram
$\mu\text{g/L}$	micrograms per liter
$\mu\text{g/m}^3$	micrograms per cubic meter
$\mu$	micron or micrometer (one-millionth of a meter)

## CONVERSION CHART

To Convert Into Metric			To Convert Into English		
If You Know	Multiply By	To Get	If You Know	Multiply By	To Get
<b>Length</b>					
inch	2.54	centimeter	centimeter	0.3937	inch
feet	30.48	centimeter	centimeter	0.0328	feet
feet	0.3048	meter	meter	3.281	feet
yard	0.9144	meter	meter	1.0936	yard
mile	1.60934	kilometer	kilometer	0.62414	mile (Statute)
<b>Area</b>					
square inch	6.4516	square centimeter	square centimeter	0.155	square inch
square feet	0.092903	square meter	square meter	10.7639	square feet
square yard	0.8361	square meter	square meter	1.196	square yard
acre	0.40469	hectare	hectare	2.471	acre
square mile	2.58999	square kilometer	square kilometer	0.3861	square mile
<b>Volume</b>					
fluid ounce	29.574	milliliter	milliliter	0.0338	fluid ounce
gallon	3.7854	liter	liter	0.26417	gallon
cubic feet	0.028317	cubic meter	cubic meter	35.315	cubic feet
cubic yard	0.76455	cubic meter	cubic meter	1.308	cubic yard
<b>Weight</b>					
ounce	28.3495	gram	gram	0.03527	ounce
pound	0.45360	kilogram	kilogram	2.2046	pound
short ton	0.90718	metric ton	metric ton	1.1023	short ton
<b>Force</b>					
dyne	0.00001	newton	newton	100,000	dyne
<b>Temperature</b>					
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	1 000 000 000 000 000 000 = $10^{15}$
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-	$\mu$	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 = $10^{-18}$