

OAK RIDGE Reservation

Annual Site Environmental Report



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Stewards of Tomorrow

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**Oak Ridge Reservation Annual Site
Environmental Report for 1999**

on the World Wide Web
<http://www.ornl.gov/aser>

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Date published: September 2000

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for the U.S. Department of Energy under Contract No. DE-AC05-00OR22725
and by
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for the U.S. Department of Energy under Contract No. DE-AC05-98OR22700

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Acronyms and Abbreviations

1STCK	First Creek kilometer
ACGIH	American Conference of Governmental Industrial Hygienists
ACO	Analytical Chemistry Organization
AIHA	American Industrial Hygiene Association
ALARA	as low as reasonably achievable
AM	action memorandum
AMSE	American Museum of Science and Energy
ANSI	American National Standards Institute
AOC	Area of Concern
ARAP	Aquatic Resources Alteration Permit
ARAR	applicable or relevant and appropriate requirement
ASER	Annual Site Environmental Report
ASO	Analytical Services Organization
ATDD	Atmospheric Turbulence and Diffusion Division
AVLIS	Atomic Vapor Laser Isotope Separation
BC	Bear Creek
BCBG	Bear Creek Burial Grounds
BCK	Bear Creek kilometer
BCV	Bear Creek Valley
BJC	Bechtel Jacobs Company LLC
BMAP	Biological Monitoring and Abatement Program
BMP	best management practice
BNFL	British Nuclear Fuels Limited
BoP	balance of plant
BOD	biological oxygen demand
BV	Bethel Valley
BY/BY	Bone Yard/Burn Yard
CA	characterization area
CAA	Clean Air Act
CBOD	carbonaceous biochemical oxygen demand
CCS	chlorine control strategy
CDI	chronic daily intake
CEI	Compliance Evaluation Inspection
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFC	chlorofluorocarbon
CFR	<i>Code of Federal Regulations</i>
CLP	Contract Laboratory Program
CMC	criterion maximum concentration
CMTS	Central Mercury Treatment System
CNF	Central Neutralization Facility

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COC	contaminant of concern
COE	(U.S. Army) Corps of Engineers
CPCF	Central Pollution Control Facility
CPU	compact processing unit
CRADA	cooperative research and development agreement
CRK	Clinch River kilometer
CRMP	cultural resource management plan
CROET	Community Reuse Organization of East Tennessee
CST	crystalline silicotitanate
CWA	Clean Water Act
CWAP	Clean Water Action Plan
CWM	Center for Waste Management
CWSA	Containerized Waste Storage Area
CX	categorical exclusion
CY	calendar year
CYRTF	Coal Yard Runoff Treatment Facility
1,2 DCE	1,2 dichloroethene
DAC	derived air concentration
DARA	Disposal Area Remedial Action
DCF	dose conversion factor
DCG	derived concentration guide
DEAR	Department of Energy Acquisition Regulations
D&D	decontamination and decommissioning
DEUSS	Discharge of Enriched Uranium to the Sanitary Sewer
DNAPL	dense nonaqueous phase liquid
DNFSB	Defense Nuclear Facilities Safety Board
DOE	U.S. Department of Energy
DOE-ALO	U.S. Department of Energy-Albuquerque Operations Office
DOE-EM	U.S. Department of Energy-Environmental Management
DOE-HQ	U.S. Department of Energy-Headquarters
DOE-ORO	U.S. Department of Energy-Oak Ridge Operations Office
DP	(Office of) Defense Programs
dps	disintegrations per second
DUF ₆	depleted uranium hexafluoride
DWS	drinking water standard
EA	environmental assessment
EDE	effective dose equivalent
EE/CA	engineering evaluation/cost analysis
EEMTF	East End Mercury Treatment Facility
EESSMS	East End Sanitary Sewer Monitoring Station
EFK	East Fork Poplar Creek kilometer
EFPC	East Fork Poplar Creek
EIS	environmental impact statement
ELPAT	Environmental Lead Proficiency Analytical Testing Program
EM	(Office of) Environmental Restoration and Waste Management
EMEF	Environmental Management and Enrichment Facilities

EML	Environmental Measurements Laboratory
EMP	environmental monitoring plan
EMWMF	Environmental Management Waste Management Facility
EO	executive order
EPA	U.S. Environmental Protection Agency
EPA-HQ	U.S. Environmental Protection Agency Headquarters
EPCRA	Emergency Planning and Community Right-To-Know Act
EPT	Ephemeroptera, Plecoptera, and Trichoptera (taxa)
ER	environmental restoration
ESD	Environmental Sciences Division (ORNL)
ES&H	environment, safety, and health
ETMC	East Tennessee Mechanical Contractors
ETTP	East Tennessee Technology Park
EUWG	Oak Ridge End Use Working Group
EWQP	ETTP Water Quality Project
FDA	U.S. Food and Drug Administration
FETC	Federal Energy Technology Center
FFA	Federal Facility Agreement
FFCA	Federal Facilities Compliance Agreement
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FFK	Fifth Creek kilometer
FPC	flow-proportional composite
FRC	Field Research Center
FS	feasibility study
FONSI	finding of no significant impact
FY	fiscal year
GAAT	Gunite and Associated Tanks
GCK	Grassy Creek kilometer
GMO	General Manufacturing Organization (Y-12 Plant)
GW	groundwater
GWPP	Groundwater Protection Program
GWPS	groundwater protection standard
GWTF	Groundwater Treatment Facility
Gy	gray
HAP	hazardous air pollutant
HC	Hinds Creek sampling station
HCDA	Hazardous Chemical Disposal Area
HEPA	high-efficiency particulate air (filter)
HEU	highly enriched uranium
HFIR	High Flux Isotope Reactor
HiVal	High Investment Value
HQ	hazard quotient
HS	hazardous substance

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HSWA	Hazardous and Solid Waste Amendments (1984)
HV	high-volume
HVAC	heating, ventilating, and air-conditioning
I	intake
I/CDI	intake (estimated dose)/chronic daily intake
ICK	Ish Creek kilometer
ICP	inductively coupled plasma
ICP-MS	inductively coupled plasma mass spectrometry
ICRP	International Commission on Radiological Protection
ID	identification
IHgTU	Interim Mercury Treatment Unit
INEEL	Idaho National Engineering and Environmental Laboratory
IPIP	Integrated Performance Indicator Program
IRIS	Integrated Risk Information System
IROD	interim record of decision
ISMS	Integrated Safety Management System
ITRD	Innovative Treatment Remediation Demonstration
IWC	instream waste concentration
IWMF	Interim Waste Management Facility
IWQP	Integrated Water Quality Program
JINS	Joint Institute for Neutron Sciences
JTU	Jackson turbidity unit
KAFaD	K-25 Auxiliary Facilities Area Demolition
KHQ	Kerr Hollow Quarry
LC ₅₀	effluent concentration lethal to 50% of test organisms
LDR	land disposal restriction
LEFPC	Lower East Fork Poplar Creek
LLC	limited liability company
LLLW	liquid low-level (radioactive) waste
LLW	low-level (radioactive) waste
LMER	Lockheed Martin Energy Research Corporation
LMES	Lockheed Martin Energy Systems
LRSPW	Lake Reality Spillway
LWBR	Lower Watts Bar Reservoir
MACT	maximum achievable control technology
MAP	Management Action Process
MAPEP	Mixed Analyte Performance Evaluation Program
MCCBK	McCoy Branch kilometer
MCL	maximum contaminant level
MEI	maximally exposed individual
MEK	Melton Branch kilometer
Mgd	million gallons per day
M&I	management and integration

MIK	Mitchell Branch kilometer
MLDUA	Modified Light-Duty Utility Arm
MMES	Martin Marietta Energy Systems, Inc.
M&O	management and operating
MPI	Multi-Point Injection
MSDS	material safety data sheet
MSRE	Molten Salt Reactor Experiment
MV	Melton Valley
MVST	Melton Valley Storage Tanks
NABIR	Natural and Accelerated Bioremediation Research
NEPA	National Environmental Policy Act
NERL-LV	National Exposure Research Laboratory at Las Vegas
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFCS	Nationwide Food Consumption Survey
NHF	New Hydrofracture Facility
NHPA	National Historic Preservation Act
NIST	National Institute of Standards and Technology
NMFS	Nuclear Material and Facility Stabilization project
NOAA	National Oceanic and Atmospheric Administration
NOD	notice of deficiency
NOEC	no-observed-effect concentration
NOEL	no-observed-effect level
NOI	Notice of Intent
NOV	notice of violation
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRWTF	Nonradiological Wastewater Treatment Facility
NTU	nephelometric turbidity unit
NWTK	Northwest Tributary kilometer
ODS	ozone depleting substance
OHF	Old Hydrofracture Facility
OLF	Oil Landfarm
OMI	Operations Management International, Inc.
OPA	Oil Pollution Act
ORAU	Oak Ridge Associated Universities
ORCMT	Oak Ridge Centers for Manufacturing Technology
OREIS	Oak Ridge Environmental Information System
ORGDP	Oak Ridge Gaseous Diffusion Plant
ORISE	Oak Ridge Institute for Science and Education
ORNL	Oak Ridge National Laboratory
ORO	Oak Ridge Operations
ORR	Oak Ridge Reservation
ORR-PCB-FFCA	Oak Ridge Reservation Polychlorinated Biphenyl Federal Facilities Compliance Agreement
OSTI	Office of Scientific and Technical Information
OU	operable unit

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PAM	perimeter air monitoring (station)
PA/SI	preliminary assessment/site investigation
PCB	polychlorinated biphenyl
PCE	perchloroethene
PCK	Poplar Creek kilometer
PCP	post-closure permit
PE	Performance Evaluation
PIDAS	Perimeter Intrusion Detection Assessment System
PIF	Partners in Flight
PM10	particulate matter less than 10 microns in diameter
POTW	publicly owned treatment works
PP	proposed plan
ppm	parts per million
ppt	parts per trillion
PVC	polyvinyl chloride
PWMP	Pond Waste Management Project
PWTC	Process Waste Treatment Complex
PWTF	Process Wastewater Treatment Facility
PWTP	Process Waste Treatment Plant
QA	quality assurance
QA/QC	quality assurance/quality control
QC	quality control
RA	remedial action
RAC	reference air concentration
rad	radiation absorbed dose
RAD-BCG	Radionuclide Biota Concentration Guide
Rad-NESHAP	Radionuclide National Emission Standards for Hazardous Air Pollutants
RAM	remote air monitoring (station)
RCK	Raccoon Creek kilometer
RCRA	Resource Conservation and Recovery Act
RCW	recirculating cooling water
R&D	research and development
REDC	Radionuclide Engineering Development Center
rem	roentgen equivalent man
RER	Remediation Effectiveness Report
RFA	RCRA Facility Assessment
RfC	reference concentration
RfD	reference dose
RI	remedial investigation
RI/FS	remedial investigation/feasibility study
RmAWP	remedial action workplan
RMP	Radiological Monitoring Plan
RMPE	Reduction of Mercury in Plant Effluent
ROD	record of decision
ROI	return on investment
RQ	reportable quantity

RSD	risk-specific dose
RSE	remedial site evaluation
RTCS	Radioactive Tank Cleaning System
RWDP	remedial design workplan
RY	reporting year
S&A	sampling and analysis
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SF	slope factor
SHPO	state historic preservation officer
SI	International System of units (metric system)
SIOU	surface impoundments operable unit
S&M	surveillance and maintenance
SMCL	secondary maximum contaminant level
SMO	Sample Management Office
SNF	spent nuclear fuel
SNS	Spallation Neutron Source
SOP	standard operating procedure
SPCC	Spill Prevention Control and Countermeasures Plan
SPMD	semipermeable membrane device
S/RIDs	Standards/Requirements Identification Documents
SSAB	Site-Specific Advisory Board
SSF	Solid Storage Facility
SSSR	Site-Specific Standard Request
ST	strong-tight
STP	Sewage Treatment Plant or Site Treatment Plan
SWDF	solid waste disposal facility
SWEIS	Site Wide Environmental Impact Statement
SWHISS	Surface Water Hydrological Information Support System
SWM	solid waste management
SWMU	solid waste management unit
SWP3	Storm Water Pollution Prevention Plan
SWPP	Storm Water Pollution Prevention
SWSA	solid waste storage area
Sv	sievert
T&E	threatened and endangered
TCE	trichloroethene
TCLP	toxicity characteristic leaching procedure
TCMP	Toxicity Control and Monitoring Program
TDEC	Tennessee Department of Environment and Conservation
TDECD	Tennessee Department of Economic and Community Development
TDEC/DOE-O	Tennessee Department of Environment and Conservation/DOE Oversight Division
TEMA	Tennessee Emergency Management Agency
TN	Tennessee

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TN-WQC	Tennessee Water Quality Criteria
TOA	Tennessee Oversight Agreement
TOC	total organic carbon
TPF	Transuranic Processing Facility
TPH	total petroleum hydrocarbons
TRC	total residual chlorine
TRI	Toxic Release Inventory
TRK	Tennessee River kilometer
TRO	total residual oxidant
TRU	transuranic
TSCA	Toxic Substances Control Act
TSCAI	Toxic Substances Control Act Incinerator
TSD	treatment, storage, and disposal
TSF	Tower Shielding Facility
TSP	total suspended particulates
TSS	total suspended solids
TVA	Tennessee Valley Authority
TVS	transportable vitrification system
TWQC	Tennessee General Water Quality Criteria
TWRA	Tennessee Wildlife Resources Agency
UEFPC	Upper East Fork Poplar Creek
UE-PCB-FFCA	Uranium Enrichment Polychlorinated Biphenyl Federal Facilities Compliance Agreement
UE-TSCA-FFCA	Uranium Enrichment Toxic Substances Control Act Federal Facilities Compliance Agreement
UIC	Underground Injection Control
UNCS	United Nuclear Corporation Site
UST	underground storage tank
UV	ultraviolet
VDRIF	Variable Dose Rate Irradiation Facility
VEE	visible emissions evaluation
VOC	volatile organic compound
WAC	waste acceptance criteria
WAG	waste area grouping
WBK	Walker Branch kilometer
WCK	White Oak Creek kilometer
WETF	West End Treatment Facility
WFPC	West Fork Poplar Creek
WIPP	Waste Isolation Pilot Plant
WMP	waste management program
WMRAD	Waste Management and Remedial Action Division (ORNL)
WOC	White Oak Creek
WOD	White Oak Dam
WOL	White Oak Lake
WQC	water quality criteria

WQP	Water Quality Projects
WQS	water quality standard
WRRP	Water Resources Restoration Program
WSS	work smart standards
XWQP	ORNL (X-10) Water Quality Project
Y-12 Plant	Oak Ridge Y-12 Plant
YOY	young of the year
YWQP	Y-12 Water Quality Project

Acknowledgments

The ASER technical coordinators and project team wish to thank those who participated in the publication of the *Annual Site Environmental Report*. Although we cannot name everyone involved in the environmental monitoring program, we would like to also thank and acknowledge those conducting sampling and analytical support.

S. M. Adams
Mike Ambrose
Steve Baloga
Rebekah Bell
Joseph Birchfield
M. A. Bogle
Don Bohrman
Terry Bonine
Mark Burris
Wayne Carlton
E. T. Collins
Rac Cox
K. R. Crow
L. L. Cunningham
Nancy Dailey
Jim Eaton
Chuck Estes
J. W. Evans
Ron Evans
S. Foster
Luther Gibson
Joan Gideon
Jan Gilbert
Patty Goddard
Mark Greeley
Steve Haase
James Hall
Laury Hamilton
K. G. Hanzelka

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S. B. Jones
Katie Kates
Walter Koncinski
Lynn Kszos
Jim Loar
Regis Loffman
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H. B. McElhoe
D. M. Maguire
Eric Mulkey
Jeff Murphy
Frank O'Donnell
Linda O'Hara
P. Osborne
Pat Parr
Alex Patton
Mark Peterson
Tony Poole
Larry R. Pounds
Stacey Rathke

Barbara Rosensteel
W. K. Roy
Ernest Ryan
E. M. Schilling
Crystal Schrof
Pat Scofield
Ron Sharp
Roy Sheely
Iris Shelton
R. S. Sherles
Johnny Skinner
David Skipper
J. G. Smith
G. R. Southworth
Robert Spurling
Brenda Stansberry
A. J. Stewart
Gail Sweeden
S. G. Thornton
Charlie Valentine
Lenny Vaughn
Jennifer Webb
Warren Webb
Sara Welch
L. F. Wicker
Mick Wiest
Joe Wolfe
Donnella Yelvington