

Annual Site Environmental Report



Taking a Close Look Together

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About the cover

"Taking a Close Look Together." A small frog, a water-lily, and the water in the pond tell us so much if we look closely. Together we must never stop looking at what is being shown to us by the environment, for it calls out to us as clearly as the frog's nightly ballad, constantly telling us how it's doing and what it may need. As DOE, industry, stakeholders, and the public, we must look, listen, understand, and respond. Always. — *Timothy Joseph*

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Oak Ridge Reservation Annual Site Environmental Report for 2002

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

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Date published: September 2003

Prepared by
Oak Ridge National Laboratory
P.O. Box 2008, Oak Ridge, TN 37831-2008
Managed by UT-Battelle, LLC

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

the Y-12 National Security Complex Oak Ridge, TN 37831-8169 Managed by

BWXT Y-12, L.L.C.

for the U.S. Department of Energy under Contract No. DE-AC05-00OR22800 and by

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P.O. Box 4699, Oak Ridge, TN 37831-4699
Managed by Bechtel Jacobs Company LLC
for the U.S. Department of Energy under Contract No. DE-AC05-98OR22700

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Acronyms and Abbreviations

AIHA American Industrial Hygiene Association

ALARA as low as reasonably achievable

ANSI American National Standards Institute, Inc.

ASER annual site environmental report

ATDD Atmospheric Turbulence and Diffusion Division

BCK Bear Creek kilometer

BJC Bechtel Jacobs Company LLC

BMAP Biological Monitoring and Abatement Program

CAA Clean Air Act

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

CFR Code of Federal Regulations
CRK Clinch River kilometer

CROET Community Reuse Organization of East Tennessee

CWA Clean Water Act CY calendar year

DCG derived concentration guide
DNAPL dense nonaqueous phase liquid
DOE U.S. Department of Energy

DOE-EM DOE Office of Environmental Management

DOE-HQ DOE Headquarters

DOE-ORO DOE Oak Ridge Operations Office

EC Environmental Compliance EDE effective dose equivalent

EFK East Fork Poplar Creek kilometer

EM (DOE Office of) Environmental Management

EMC event mean constituent

EMS environmental management system

EMWMF Environmental Management Waste Management Facility

EPA U.S. Environmental Protection Agency

EPCRA Emergency Planning and Community Right-to-Know Act EPT Ephemeroptera, Plectoptera, and Trichoptera (taxa)

ETTP East Tennessee Technology Park

FCK First Creek kilometer FFK Fifth Creek kilometer

FIFRA Federal Insecticide, Fungicide, and Rodenticide Act

FY fiscal year

HFIR High Flux Isotope Reactor

HQ hazard quotient

HSWA Hazardous and Solid Waste Amendments

ICP-MS inductively coupled plasma mass spectrometry

ID identification (number)

INEEL Idaho National Engineering and Environmental Laboratory

ISMS Integrated Safety Management System

ISO International Organization for Standardization

LC₅₀ concentration of an aqueous sample lethal to 50% of test organisms in a given

time span.

LLLW liquid low-level radioactive waste LLW low-level radioactive waste

MACT Maximum Achievable Control Technology

MEK Melton Branch kilometer
MIK Mitchell Branch kilometer

NEPA National Environmental Policy Act

NESHAP National Emission Standards for Hazardous Air Pollutants

NHPA National Historic Preservation Act

NIST National Institute of Standards and Technology NNSA National Nuclear Security Administration

NOAA National Oceanic and Atmospheric Administration

NOEC no-observed-effect concentration

NOV notice of violation

NPDES National Pollutant Discharge Elimination System

NTRC National Transportation Research Center

NWTK Northwest Tributary kilometer

ORAU Oak Ridge Associated Universities

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

ORR Oak Ridge Reservation

ORR-PCB-FFCA Oak Ridge Reservation Polychlorinated Biphenyl

Federal Facilities Compliance Agreement

OST Office of Secure Transportation

OSTI DOE Office of Scientific and Technical Information

PAM perimeter air monitoring PCB polychlorinated biphenyls

PM10 particulate matter less than 10 microns in diameter

QA quality assurance QC quality control

R&D research and development
RAM remote air monitoring
RCK Racoon Creek kilometer

RCRA Research Conservation and Recovery Act

SARA Superfund Amendments and Reauthorization Act

SDWA Safe Drinking Water Act
SNS Spallation Neutron Source
SWSA solid waste storage area

TDEC Tennessee Department of Environment and Conservation

TSCA Toxic Substances Control Act
TSD treatment, storage, and disposal

TSDR treatment, storage, disposal, and recycle

TSP total suspended particulate TVA Tennessee Valley Authority

TWRA Tennessee Wildlife Resources Agency

UST underground storage tank UT University of Tennessee

WAG waste area grouping
WBK Walker Branch kilometer
WCK White Oak Creek kilometer
WIPP Waste Isolation Pilot Plant
WQP water quality project

Y-12 Y-12 National Security Complex

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.

ETTP

Kevin Crow H. B. McElhoe Jill Mortimore Jeff Murphy Tony Poole Sheila Thornton Sara Welch Steven Wood

ORNL

Kevin Birdwell
Terry Bonine
Rac Cox (ORAU)
Nancy Dailey
Mark Greeley
Scott Gregory
James Hall
Frank Kornegay
Regis Loffman
Susan Michaud
Eric Mulkey
Frank O'Donnell
Pat Parr

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