Oak Ridge Reservation

Annual Site Environmental Report 2019

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<th>Abbreviation</th>
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<td>Integrated Risk Information System</td>
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ISMS  Integrated Safety Management System
ISO  International Organization for Standardization
Isotek  Isotek Systems, LLC

LEED  Leadership in Energy and Environmental Design
LID  low-impact design
LLW  low-level (radioactive) waste

MARSAME  *Multi-Agency Radiation Survey and Assessment of Materials and Equipment Manual*
MARSSIM  *Multi-Agency Radiation Survey and Site Investigation Manual*
MBK  Mill Branch kilometer
MCK  McCoy Branch kilometer
MCL  maximum contaminant level
MDF  Manufacturing Demonstration Facility
MEI  maximally exposed individual
MEK  Melton Branch kilometer
MIK  Mitchell Branch kilometer
MOA  memorandum of agreement
MSL  mean sea level
MSRE  Molten Salt Reactor Experiment
MT  meteorological tower (followed by a numeral as in “MT2”)

NAAQS  National Ambient Air Quality Standards
NCRP  National Council on Radiation Protection and Management
NEPA  National Environmental Policy Act
NESHAPs  National Emission Standards for Hazardous Air Pollutants
NNSA  National Nuclear Security Administration
NPDES  National Pollutant Discharge Elimination System
NPL  National Priorities List (EPA)
NRC  US Nuclear Regulatory Commission
NRCS  Natural Resources Conservation Service
NRHP  National Register of Historic Places
NSF-ISR  National Science Foundation International Strategic Registrations, Ltd.
NTRC  National Transportation Research Center
NWSol  North Wind Solutions, LLC

ODS  ozone-depleting substance
OMP  operational monitoring plan
OREM  DOE Oak Ridge Office of Environmental Management
ORGDP  Oak Ridge Gaseous Diffusion Plant
ORISE  Oak Ridge Institute for Science and Education
ORNL  Oak Ridge National Laboratory
ORO  DOE Oak Ridge Office
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<tr>
<td>ORRLF</td>
<td>Oak Ridge Reservation Landfill</td>
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<td>ORSSAB</td>
<td>Oak Ridge Site Specific Advisory Board</td>
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<td>Oak Ridge Wildlife Management Area</td>
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<td>OST</td>
<td>Office of Secure Transportation</td>
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<td>OTC</td>
<td>once-through cooling</td>
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<td>P2</td>
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<td>P2/WMin</td>
<td>pollution prevention/waste minimization</td>
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<td>PAM</td>
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<td>PEMS</td>
<td>Predictive Emissions Monitoring System</td>
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<td>per- and polyfluoroalkyl substances</td>
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<td>perfluorooctane sulfonate</td>
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<td>pre-fire plan</td>
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<td>PM</td>
<td>particulate matter</td>
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<td>PM&lt;sub&gt;10&lt;/sub&gt;</td>
<td>particulate matter with an aerodynamic diameter ≤ 10 µm</td>
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<td>PM&lt;sub&gt;2.5&lt;/sub&gt;</td>
<td>fine particulate matter with an aerodynamic diameter ≤ 2.5 µm</td>
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<td>Process Waste Treatment Complex</td>
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<td>quality assurance</td>
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<td>quality management system</td>
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<td>Rad-NESHAPs</td>
<td>National Emission Standards for Hazardous Air Pollutants for Radionuclides</td>
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<td>RICE</td>
<td>reciprocating internal combustion engine</td>
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<td>SOF</td>
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**Units of Measure and Conversion Factors***

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<td>deci</td>
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</table>

*Due to differing permit reporting requirements and instrument capabilities, various units of measurement are used in this report. The provided list of units of measure and conversion factors is intended to help readers make approximate conversions to other units as needed for specific calculations and comparisons.*
### Unit conversions

<table>
<thead>
<tr>
<th>Unit</th>
<th>Conversion</th>
<th>Equivalent</th>
<th>Unit</th>
<th>Conversion</th>
<th>Equivalent</th>
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<td><strong>Length</strong></td>
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<tr>
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<td>µg/kg</td>
<td>µg/kg</td>
<td>$\times 1$</td>
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<td>°C</td>
<td></td>
<td>°F = (9/5)°C + 32</td>
<td>³F</td>
<td>³F = (5/9)(F–32)</td>
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<td>Ci</td>
<td>Ci</td>
<td>$\times 3.7 \times 10^{10}$</td>
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<td>$\times 27$</td>
<td>pCi</td>
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<td>$\times 0.037$</td>
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<td>$\times 100$</td>
<td>mrem</td>
<td>mrem</td>
<td>$\times 0.01$</td>
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<td>Sv</td>
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<td>µCi/mL</td>
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<td>µCi/cm³</td>
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<td>pCi/m³</td>
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Acknowledgments

The US Department of Energy (DOE) is responsible for producing this document. DOE acknowledges with deep appreciation the efforts of the following individuals who provided valuable resources, information, and technical data and management, administrative, field, or other support.

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ORNL

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