References

## References

**Note:** In this report we refer to a number of documents (e.g., plans, reports) that are intended for internal use. For the most part, these documents function as a means of communication between governmental agencies and the tenant companies on the Oak Ridge Reservation or as the means by which analytical laboratories deliver results. As such, these documents are not readily available to the public and therefore are not cited in the list of references.

- Adams, S. M., et al. 2000. *Oak Ridge Y-12 Plant Biological Monitoring and Abatement Program (BMAP) Plan.* Y/TS-1613-R2. Oak Ridge Y-12 National Security Complex, Oak Ridge, Tennessee.
- Alter, H. 1986. A Glossary of Terms in Nuclear Science and Technology, American Nuclear Society, La Grange Park, Illinois.
- ANSI. 1969. *Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities*. ANSI N13.1-1969R. American National Standards Institute, Washington, D.C.
- Beres, D. A. 1990. The Clean Air Act Assessment Package–1988 (CAP-88): A Dose and Risk Assessment Methodology for Radionuclide Emissions to Air. SC&A, Inc., McLean, Virginia.
- Birdwell, K. R. 1996. "A Climatology of Winds over a Ridge and Valley Terrain within the Great Valley of Eastern Tennessee." Master's Thesis, Department of Geosciences, Murray State University, Murray, Kentucky.
- BJC. 2004a. Sampling and Analysis Plan for the Water Resources Restoration Program for Fiscal Year 2005, Oak Ridge Reservation, Oak Ridge, Tennessee. BJC/OR-1845. Bechtel Jacobs Company LLC, Oak Ridge, Tennessee.
- BJC. 2004b. *Preliminary Ecological Risk Evaluation for the East Tennessee Technology Park: Aquatic.* BJC/OR-1708. Bechtel Jacobs Company LLC, Oak Ridge, Tennessee.
- BJC. 2004c. Preliminary Ecological Risk Evaluation for the East Tennessee Technology Park: Terrestrial. BJC/OR-1763. Bechtel Jacobs Company LLC, Oak Ridge, Tennessee.
- BJC. 2005. Sampling and Analysis Plan for the Water Resources Restoration Program for Fiscal Year 2006, Oak Ridge Reservation, Oak Ridge, Tennessee. BJC/OR-2231. Bechtel Jacobs Company LLC, Oak Ridge, Tennessee.
- BJC. 2006a. Calendar Year 2005, Resource Conservation and Recovery Act Annual Groundwater Monitoring Report for the Upper East Fork Poplar Creek Hydrogeologic Regime at the U. S. Department of Energy Y-12 National Security Complex, Oak Ridge, Tennessee. BJC/OR-2407. Bechtel Jacobs Company LLC, Oak Ridge, Tennessee.
- BJC. 2006b. Calendar Year 2005, Resource Conservation and Recovery Act Annual Groundwater Monitoring Report for the Bear Creek Hydrogeologic Regime at the U. S. Department of Energy Y-12 National Security Complex, Oak Ridge, Tennessee. BJC/OR-2405. Bechtel Jacobs Company LLC, Oak Ridge, Tennessee.

- BJC. 2006c. Calendar Year 2005, Resource Conservation and Recovery Act Annual Groundwater Monitoring Report for the Chestnut Ridge Hydrogeologic Regime at the U. S. Department of Energy Y-12 National Security Complex, Oak Ridge, Tennessee. BJC/OR-2406. Bechtel Jacobs Company LLC, Oak Ridge, Tennessee.
- BJC 2006d. Groundwater Quality Assessment Report for Solid Waste Storage Area 6 at the Oak Ridge National Laboratory, Oak Ridge, Tennessee CY 2005. BJC/OR-2430, Bechtel Jacobs Company LLC, Oak Ridge, Tennessee.
- Bonine. 2003. Annual Monitoring Plan for the High Flux Isotope Reactor Site, Monitoring Period: 2003–2004. Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- Bonine. 2004a. Annual Monitoring Plan for the High Flux Isotope Reactor Site, Monitoring Period: 2004–2005. Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- Bonine. 2004b. Data Quality Objectives for the UT-Battelle Groundwater Surveillance Monitoring Program at ORNL. Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- Bonine. 2005. UT-Battelle Sampling and Analysis Plan for Surveillance Monitoring of Exit Pathway Groundwater at Oak Ridge National Laboratory. Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- Bonine, Ketelle, and Trotter. 2004. *Baseline Groundwater Monitoring Plan for the Spallation Neutron Source Site: Monitoring Period 2004–2006.* SNS 102040000-ES0001-R00 and ORNL/TM-2004/118. Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- Bowen, B. M., J. A. Baars, and G. L. Stone. 2000. "Nocturnal Wind Shear and its Potential Impact on Pollutant Transport." *Journal of Applied Meteorology* **39**(3), 437–45.
- BWXT. 2002. *Storm Water Pollution Prevention Plan for the Oak Ridge Y-12 Plant*. Y/TS-1180/R4. BWXT Y-12, L.L.C., Oak Ridge, Tennessee.
- BWXT. 2003. *National Historic Preservation Act Historic Preservation Plan*. Y/TS-1893. BWXT Y-12, L.L.C., Oak Ridge, Tennessee.
- BWXT. 2006. Calendar Year 2005 Groundwater Monitoring Report, U.S. Department of Energy Y-12 National Security Complex, Oak Ridge, Tennessee. Y/SUB/06-048395/1. BWXT Y-12, L.L.C., Oak Ridge, Tennessee.
- Carlson, M. A., and R. B. Stull. 1986. "Subsidence in the Nocturnal Boundary Layer." *Journal of Climate and Applied Meteorology* **25**, 1088–99.
- Chan, P. K., G. P. O'Hara, and A. W. Hayes. 1982. "Principles and Methods for Acute and Subchronic Toxicity." *Principles and Methods of Toxicology*. Raven Press, New York.
- DOE. 1988a. *External Dose-Rate Conversion Factors for Calculation of Dose to the Public*. DOE/EH-0070. Department of Energy, Washington, D.C.
- DOE. 1988b. *Internal Dose Conversion Factors for Calculation of Dose to the Public*. DOE/EH-0071. Department of Energy, Washington D.C

- DOE. 1989. Radioactive Decay Data Tables: A Handbook of Decay Data for Application to Radioactive Dosimetry and Radiological Assessments. DOE/TIC-11026. Department of Energy, Washington, D.C.
- DOE. 1994. Compliance Plan National Emission Standards for Hazardous Air Pollutants for Airborne Radionuclides on the Oak Ridge Reservation, Oak Ridge Tennessee. DOE/ORO/2196. Department of Energy Oak Ridge Office, Oak Ridge, Tennessee.
- DOE. 1997a. Remedial Investigation Report for Melton Valley Watershed at Oak Ridge National Laboratory, Oak Ridge, Tennessee. Vol. 1. DOE/OR/01-1546/V1&D2. Department of Energy, Washington, D.C.
- DOE. 1997b. Report on the Remedial Investigation of Bear Creek Valley at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee. DOE/ORR/01-1455/V1/V6&D2. Department of Energy, Washington, D.C.
- DOE. 1998. Report on the Remedial Investigation of the Upper East Fork Poplar Creek Characterization Area at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee. DOE/OR/01-1641/V1-V4&D2. Department of Energy, Office of Environmental Management, Oak Ridge, Tennessee.
- DOE. 1999a. Accelerating Clean-Up: Paths to Closure. U.S. Department of Energy Oak Ridge Office, Oak Ridge, Tennessee.
- DOE. 1999b. Remedial Investigation/Feasibility Study for Bethel Valley Watershed at Oak Ridge National Laboratory, Oak Ridge, Tennessee. DOE/OR/01-1748/V1/V2&D2. Department of Energy, Washington, D.C.
- DOE. 2001a. Cultural Resource Management Plan, DOE Oak Ridge Reservation, Anderson and Roane Counties, Tennessee. DOE/ORO 2085. Department of Energy, Washington, D.C.
- DOE. 2001b. Environmental Assessment, Oak Ridge National Laboratory Facilities Revitalization Project. DOE/EA-1362. Department of Energy, Washington, D.C.
- DOE. 2002. DOE Standard: A Graded Approach for Evaluating Radiation Doses to Aquatic and Terrestrial Biota. DOE-STD-1153-2002. Department of Energy, Washington, D.C.
- DOE. 2003. *Environmental Monitoring Plan for the Oak Ridge Reservation*. DOE/OR-1066/R5. Department of Energy Oak Ridge Office, Oak Ridge, Tennessee.
- DOE. 2004. Ecological Monitoring Report for the Melton Valley Watershed, Oak Ridge National Laboratory, Oak Ridge, Tennessee. DOE/OR/01-2061&D. Bechtel Jacobs Company LLC, Oak Ridge, Tennessee.
- DOE. 2005. Annual Update of the Solid Waste Management Units for the Oak Ridge Reservation. Submitted to the Environmental Protection Agency.
- DOE. 2006a. *Environmental Monitoring on the Oak Ridge Reservation: 2005 Results*. DOE/ORO-2220. Oak Ridge National Laboratory (UT-Battelle LLC), Oak Ridge Y-12 National Security Complex (BWXT Y-12, L.L.C.), and East Tennessee Technology Park (Bechtel Jacobs Company LLC), Oak Ridge, Tennessee.
- DOE. 2006b. 2005 Remediation Effectiveness Report for the U.S. Department of Energy, Oak Ridge Reservation, Oak Ridge, Tennessee.DOE/OR/01-2211&D1. Department of Energy, Oak Ridge, Tennessee.

- Eckman, R.M. 1998. "Observations and Numerical Simulations of Winds within a Broad Forested Valley." *Journal of Applied Meteorology* **37**, 206–19.
- EPA. 1989. Risk Assessments Methodology, Environmental Impact Statement, NESHAPs for Radionuclides, Background Information. Vol. 1. EPA/520/1-89-005. Environmental Protection Agency, Washington, D.C.
- EPA. 1993. External Exposure to Radionuclides in Air, Water, and Soil, Federal Guidance Report No. 12. EPA 402-R-93-081. Environmental Protection Agency, Washington, D.C.
- EPA 1995 and 1998. Compilation of Air Pollutant Emission Factors AP-42, Fifth Edition, Volume 1: Stationary Point and Area Sources. Environmental Protection Agency, Research Triangle Park, N.C. January 1995 and September 1998.
- EPA. 1997. *Exposure Factors Handbook, Vol. II. Food Ingestion Factors*, EPA/600/P-95/002Fb, Environmental Protection Agency, Office of Research and Development, Washington, D.C.
- Farnsworth, R. K., E. S. Thompson, and E. L. Peck. 1982. Evaporation Atlas for the Contiguous 48 United States. NOAA Technical Report NWS 33. National Weather Service Office of Hydrology, Washington, D.C.
- Hamby, D. M. 1991. LADTAP XL: An Improved Electronic Spreadsheet Version of LADTAP II. DE93003179. Westinghouse Savannah River Company, Aiken, South Carolina.
- Hatcher, R. D., et al. 1989. Field Guide and Perspective on the Geology and Hydrology of the Oak Ridge Reservation. Oak Ridge National Laboratory/University of Tennessee, Oak Ridge, Tennessee.
- Kossman, M., and A. P. Sturman. 2002. "Pressure Driven Channeling Effects in Bent Valleys." *Journal* of Applied Meteorology 42, 151–58.
- Kszos, L. A., et al. 1997. *Biological Monitoring and Abatement Program Plan for the Oak Ridge National Laboratory*. ORNL/TM-13432. Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- Lewellen, D. C., and W. S. Lewellen. 2002. "Entrainment and Decoupling Relations for Cloudy Boundary Layers." *Journal of the Atmospheric Sciences* **59**, 2966–86.
- LMER. 1996. Oak Ridge Reservation Annual Site Environmental Report for 1995. ES/ESH-69. Lockheed Martin Energy Systems, Inc., Oak Ridge, Tennessee.
- LMES. 1995. Oak Ridge Reservation Annual Site Environmental Report for 1994. ES/ESH-57. Lockheed Martin Energy Systems, Inc., Oak Ridge, Tennessee.
- LMES. 1997. Wetland Survey of Selected Areas in the Oak Ridge Y-12 Plant Area of Responsibility, Oak Ridge, Tenn. Y/ER-27. Lockheed Martin Energy Systems, Inc., Oak Ridge, Tennessee.
- LMES. 1999. Technical Explanation for the Detected Increase in Nickel in Groundwater Monitoring Well GW-305 at the Industrial Landfill IV, IDL-47-103-0075, Department of Energy Y-12 Plant, Anderson County, TN., Environment, Safety, and Health Organization. Y/TS-1774. Lockheed Martin Energy Systems, Inc., Oak Ridge, Tennessee.
- Loar, J. M., et al. 1991. Oak Ridge National Laboratory Biological Monitoring and Abatement Program for White Oak Creek Watershed and the Clinch River. ORNL/TM-10370. Oak Ridge National Laboratory, Oak Ridge, Tennessee.

- MMES. 1993. *Identification and Characterization of Wetlands in the Bear Creek Watershed*. Y/TS-1016. Martin Marietta Energy Systems, Inc., Oak Ridge, Tennessee.
- MMES. 1994. Compliance Plan: National Emission Standards for Hazardous Air Pollutants for Airborne Radionuclides on the Oak Ridge Reservation, Oak Ridge, Tennessee. ES/ESH-45. Martin Marietta Energy Systems, Inc., Oak Ridge, Tennessee.
- Monti, P., H. J. S. Fernando, M. Princevac, W. C. Chan, T. A. Kowalewski, and E.R. Pardyjak. 2002. "Observations of Flow and Turbulence in the Nocturnal Boundary Layer over a Slope." *Journal of the Atmospheric Sciences* 59, 2513–34.
- Moore, G. K. 1988. Concepts of Groundwater Occurrence and Flow Near Oak Ridge National Laboratory, Tennessee. ORNL/TM-10969. Martin Marietta Energy Systems, Inc., Oak Ridge, Tennessee.
- Myrick, T. E., et al. 1981. State Background Radiation Levels: Results of Measurements Taken During 1975–1979. ORNL/TM-7343. Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- National Park Service. 2003. *National Register of Historic Places*. http://www.nationalregisterofhistoricplaces.com/.
- Nativ, R., A. Halleran, and A. Hunley. 1997. The Deep Hydrogeologic Flow System Underlying the Oak Ridge Reservation—Assessing the Potential for Active Groundwater Flow and Origin of the Brine. ORNL/GWPO-18. Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- NCRP. 1987. *Ionizing Radiation Exposure of the Population of the United States*. NCRP Report No. 93. National Council on Radiation Protection and Measurements, Washington, D.C.
- NCRP. 1989. *1989 Exposure of the U.S. Population from Diagnostic Medical Radiation*. NCRP Report No. 100. National Council on Radiation Protection and Measurements, Bethesda, Maryland.
- NOAA. 2006. Local Climatological Data Annual Survey With Comparative Data, Oak Ridge, Tenn. National Oceanic and Atmospheric Administration, National Climatic Data Center, Asheville, North Carolina.
- NRC. 1977. Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR 50. Regulatory Guide 1.109, Appendix I, Revision 1. NRC Office of Standards Development, Nuclear Regulatory Commission, Washington, D.C.
- ORNL. 1999. P. A. Scofield and N. A. Teasely, Jr. ORR Deer Hunt Monitoring Program. ORNL/TM-13719. Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- ORSSAB. 1999. *The Oak Ridge Reservation Stakeholder Report on Stewardship*. Oak Ridge Site Specific Advisory Board, Oak Ridge, Tennessee.
- ORSSAB. 2004. A Student Summary of the Oak Ridge Reservation Stakeholder Report on Stewardship. Oak Ridge Site Specific Advisory Board, Oak Ridge, Tennessee.
- Rosensteel, B. 1996. Wetland Survey of the X-10 Bethel Valley and Groundwater Operable Units at Oak Ridge National Laboratory. ORNL/ER-350, Oak Ridge National Laboratory, Oak Ridge, Tennessee.

- Smith, R. B., S. Skubis, J. D. Doyle, A. S. Broad, C. Kiemle, and H. Volkert. 2002. "Mountain Waves over Mont Blanc: Influence of a Stagnant Boundary Layer." *Journal of the Atmospheric Sciences* 59 (13), 2073–2092.
- TDEC. 2002. 305b Report. The Status of Water Quality in Tennessee. Tennessee Department of Environment and Conservation, Division of Water Pollution Control, Nashville, Tennessee.
- TDEC. 2004. General Water Quality Criteria, Criteria of Water Uses—Toxic Substances. TDEC 1200-4-.03 (j). Tennessee Department of Environment and Conservation Tennessee Water Quality Control Board, Division of Water Pollution Control. Revised January 2004.
- TDEC. 2005. *Status Report to the Public*. Tennessee Department of Environment and Conservation, Nashville, Tennessee. www.state.tn.us/environment/doeo/.
- Tsakeres, F. S. 1980. *Radiological Assessment of Residences in the Oak Ridge Area*. ORNL/TM-7392/V1. Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- Tucci, P. 1992. *Hydrology of Melton Valley at Oak Ridge National Laboratory, Tennessee*. U.S. Geological Survey Water Resources Investigation Report 92-4131. Nashville, Tennessee.
- TVA. 1972. Upper Bear Creek Experimental Project: A Continuous Daily Streamflow Model. Research Paper No. 8, Tennessee Valley Authority Division of Water Control Planning, Knoxville, Tennessee.
- USFWS. 1995. *Preliminary Estimates of Waterfowl Harvest and Hunter Activity in the United States.* U.S. Fish and Wildlife Service, Washington, D.C.
- UT-Battelle 2004. ORNL/TM-2004/62, April 2004.
- UTK. 2006. http://cber.bus.utk.edu/census/04subcnty.htm.
- Van De Weil, B. J. H., A. F. Moene, R. J. Ronda, H. A. R. De Bruin, and A. A. M. Holtslag. 2002. "Intermittent Turbulence and Oscillations in the Stable Boundary Layer over Land. Part II: A System Dynamics Approach." *Journal of the Atmospheric Sciences* 59, 2567–81.
- Whiteman, C. D. 2000. *Mountain Meteorology: Fundamentals and Applications*. Oxford University Press, New York.
- Whiteman, C. D., S. Zhong, W. J. Shaw, J. M. Hubbe, and X. Bian. 2001. "Cold Pools in the Columbia River Basin." *Weather and Forecasting* **16**, 432–47.
- WSRC. 1994. *Savannah River Site Environmental Report for 1993*. Summary Pamphlet. SSRC-TR-076. Westinghouse Savannah River Company, Aiken, South Carolina.
- Y-12. 2003. Y-12 Complex Ozone Depleting Substances (ODS) Phase-Out and Management Plan. Y/TS-1880. Oak Ridge Y-12 National Security Complex, Oak Ridge, Tennessee.
- Y-12. 2005. *Y-12 Ten-Year Comprehensive site Plan, FY 2006–2015*. Y/MOD-012, Rev. 6, September 2005. Oak Ridge Y-12 National Security Complex, Oak Ridge, Tennessee.

## Disclaimer

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States. UT-Battelle, LLC, Bechtel Jacobs Company LLC, BWXT Y-12, LLC, nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof. The sampling and monitoring results reported herein are not a comprehensive report of all sampling and analysis performed.

