

# History of the Oak Ridge EM Program



1980

- ▶ Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) becomes law and provides broad federal authority to address potential releases of hazardous substances.

- ▶ Uranium enrichment operations at the Oak Ridge K-25 Gaseous Diffusion Plant (now known as East Tennessee Technology Park) are halted.

1985

1987

- ▶ The Oak Ridge K-25 Gaseous Diffusion Plant is permanently shut down.

- ▶ DOE establishes the Office of Environmental Management (EM) to oversee the cleanup of hazardous materials at DOE facilities throughout the United States, including the Oak Ridge Reservation.
- ▶ The Oak Ridge Reservation is placed on the National Priorities List, identifying it to be cleaned up under the provisions of CERCLA.

1989

1991

- ▶ The Toxic Substances Control Act (TSCA) Incinerator begins operation at the Oak Ridge K-25 Site. It is the only incinerator in the nation capable of incinerating wastes containing PCBs.

- ▶ The Oak Ridge Reservation Federal Facility Agreement is enacted. It is a CERCLA-required cooperative agreement among DOE, the Environmental Protection Agency, and the Tennessee Department of Environment and Conservation to promote cooperation and participation of the three parties in cleaning up the Oak Ridge Reservation.

1992

1993

- ▶ A Citizens Working Group is formed to provide feedback to DOE on potential remedial alternatives for the cleanup of Lower East Fork Poplar Creek, which would become one of the first major cleanup efforts in Oak Ridge. Public input into the remediation was the catalyst for modifying cleanup levels, resulting in less cost and less environmental disruption from excavation.

- ▶ Records of Decision are issued for remediation of Lower East Fork Poplar Creek and Lower Watts Bar Reservoir.
- ▶ DOE establishes the Oak Ridge Site Specific Advisory Board (ORSSAB) under the Federal Advisory Committees Act. The ORSSAB is a federally appointed citizens panel that provides advice and recommendations to DOE's Environmental Management Program.

1995

1996

- ▶ First lease of a K-25 Site facility is signed between the Community Reuse Organization of East Tennessee (a DOE leasing agent) and a private company. DOE's goal is to eventually convert the site into a self-sustaining private industrial park.



# History of the Oak Ridge EM Program (continued)

1997

- ▶ ORSSAB sponsors public meeting that results in the formation of the End Use Working Group, a diverse group of stakeholders tasked with developing recommendations for end uses of contaminated sites.
- ▶ Lower East Fork Poplar Creek remediation is completed.
- ▶ Records of Decision are issued for removal of sludge from gunite tanks at Oak Ridge National Laboratory (ORNL), remediation of Surface Impoundments at ORNL, remediation of Clinch River/Poplar Creek, and remediation of Union Valley Groundwater Plumes.

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- ▶ Bechtel Jacobs Company LLC becomes the prime cleanup contractor for the Oak Ridge Reservation, replacing Lockheed Martin Energy Systems Inc.
  - ▶ End Use Working Group issues two reports: *Final Report of the Oak Ridge Reservation End Use Working Group* and *The Oak Ridge Reservation Stakeholder Report on Stewardship*.

1998

1999

- ▶ The ORSSAB forms the Stewardship Working Group to address issues associated with long-term stewardship on the Oak Ridge Reservation. The group produces *The Oak Ridge Reservation Stakeholder Report on Stewardship, Vol. 2*.
- ▶ The ORSSAB hosts the National Site Specific Advisory Board Meeting on Stewardship with members from nine DOE site SSABs attending.

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- ▶ Removal of radioactive sludge from a series of underground gunite tanks at ORNL is completed.
  - ▶ Records of Decision are issued for the Melton Valley Watershed and Bear Creek Valley Watershed.

2000

2001

- ▶ Ground is broken for the Environmental Management Waste Management Facility (EMWMF), an on-site CERCLA disposal cell that will handle contaminated waste generated from Oak Ridge Reservation cleanup. The facility would begin accepting waste in 2002.

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- ▶ DOE announces that the Oak Ridge Reservation will be cleaned up on an accelerated schedule, with high-risk areas to be addressed first. Areas covered in the Melton Valley Record of Decision are scheduled to be remediated by 2006, East Tennessee Technology Park by 2008, and the Balance of Reservation by 2015.

- ▶ The DOE Information Center opens, consolidating the services of the DOE EM Information Resource Center and the DOE Public Reading Room.

2002

- ▶ Records of Decision are issued for Bethel Valley Watershed and Upper East Fork Poplar Creek sediments.

2003

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- ▶ Bechtel Jacobs Company LLC is selected to implement DOE's accelerated cleanup plan.
  - ▶ Transuranic Waste Processing Facility is constructed.
  - ▶ All spent nuclear fuel is shipped from the Oak Ridge Reservation to various locations for safe disposal.
  - ▶ Excavation of the K-1070-A Burial Ground at East Tennessee Technology Park (ETTP) is completed.
  - ▶ Record of Decision is issued for ETTP Zone 1 soil remediation.

# History of the Oak Ridge EM Program (continued)

2004

- ▶ Shipments begin of more than 6,000 depleted uranium hexafluoride cylinders from ETTP to Portsmouth, Ohio, for disposition.
- ▶ ETTP Scrap Waste Removal Project begins work on removing approximately 47,000 tons of scrap metal from the site.
- ▶ Cleanup of Atomic City Auto Parts is completed. The site was used as a coal distribution center by the Manhattan Project.
- ▶ Transuranic Waste Processing Facility begins operation.

2005

- ▶ Remediation of Blair Quarry is completed. The quarry was created in the early 1940s by excavating into McKinney Ridge. The rock material was used to support construction of the K-25 Site. It was later used for open burning of trash and debris.
- ▶ Numerous buildings at ETTP, including the former cafeteria (K-1002) and medical facility (K-1003), are demolished as part of the ETTP Decontamination and Decommissioning Project.
- ▶ Phase 1 of David Witherspoon Inc. 901 Site cleanup, which included building decontamination, demolition, and debris removal, is completed. The site previously received scrap radioactive and hazardous materials from federal operations in Oak Ridge.
- ▶ Construction begins on a haul road from ETTP to EMWMF so that wastes generated in the cleanup of ETTP can be shipped to the disposal facility without traveling on public roadways.
- ▶ Record of Decision is issued for cleanup of the Zone 2 portion of ETTP, which includes the area within the main fence of the plant.
- ▶ Expansion of EMWMF (Cells 3 and 4) is completed, adding 800,000 yds<sup>3</sup> of disposal capacity.
- ▶ Four office buildings totaling 200,000 ft<sup>2</sup> are transferred to Community Reuse Organization of East Tennessee (CROET).
- ▶ Bechtel Jacobs Company achieves the first major milestone of its Accelerated Cleanup contract with DOE: disposal of low-level and mixed legacy waste from the Oak Ridge Reservation.
- ▶ Site Specific Advisory Board celebrates 10-year anniversary.
- ▶ Building 3019 Project at ORNL is transferred to EM program.

- ▶ The ETTP-to-EMWMF haul road opens.
- ▶ Building K-29, one of the large gaseous diffusion buildings, is demolished and debris removed.
- ▶ Melton Valley remediation is completed. Activities include cleanup and containment of various storage areas that accepted waste from ORNL operations. This achievement marks the successful completion of Bechtel Jacobs Company's second major Accelerated Cleanup milestone.
- ▶ Demolition of several facilities in the laboratory and main plant area of ETTP is completed as part of the ETTP Decontamination and Decommissioning Project.
- ▶ Project personnel completes shipment off-site of the last of the 6,000 depleted uranium hexafluoride cylinders located at ETTP.
- ▶ Site Specific Advisory Board receives national Citizens Excellence in Community Involvement Award.
- ▶ Two office buildings totalling 93,000 ft<sup>2</sup> are transferred to the CROET.

2006

# History of the Oak Ridge EM Program (continued)

2007

- ▶ Demolition of Building K-1401, a 500,000-square-foot former maintenance facility in the center of ETPP, is completed.
- ▶ Demolition of K-1320, an office building at ETPP, is completed.
- ▶ Demolition of the K-1501 ETPP Steam Plant facility is completed. The 2.5-year project, which involved 42,000 labor hours and more than 12 million pounds of waste shipped, concludes with no accidents.
- ▶ The haul road project, which connects ETPP to EMWMF, receives a Best in Class Pollution Prevention Award from DOE Headquarters Office of Environmental Management.
- ▶ Expansion of EMWMF (Cells 3 and 4) is completed, adding 800,000 yds<sup>3</sup> of disposal capacity.
- ▶ Parcels ED-5 and ED-7, totalling 23 acres, are transferred to CROET.

2008

- ▶ ETPP Fire Station is transferred to the City of Oak Ridge.
- ▶ The last of the nuclear fuel is removed from its storage tank at the Molten Salt Reactor Experiment.
- ▶ Field work at the Witherspoon 1630 Site in South Knoxville is completed.
- ▶ Demolition of Building K-1401, a former maintenance facility at ETPP, is completed.
- ▶ Demolition of the K-25 Building west wing begins.

2009

- ▶ \$755 million is provided to DOE Oak Ridge Office for cleanup projects under the American Recovery and Reinvestment Act.
- ▶ The TSCA Incinerator is shut down, completing 18 years of service in which 35 million pounds of wastes were treated.
- ▶ Demolition of Building K-1035, a 48,000 ft<sup>2</sup> former instrument shop, is completed.
- ▶ Recontouring and restoration activities are initiated for three contaminated ETPP ponds.
- ▶ CROET begins construction of two “spec” buildings at ETPP for prospective private tenants.

2010

- ▶ Demolition of the K-25 Building west wing is completed and demolition debris is removed.
- ▶ Tie line isolation of the K-33 Building is completed in preparation for demolition.
- ▶ Various streets at ETPP are transferred to the City of Oak Ridge and renamed.

# History of the Oak Ridge EM Program (continued)

2011

- ▶ Demolition of the K-25 Building's east wing begins.
- ▶ URS | CH2M Oak Ridge LLC (UCOR) becomes the prime cleanup contractor for the DOE Oak Ridge Reservation, replacing Bechtel Jacobs Company.
- ▶ Reindustrialization Program leases 282 acres to the Community Reuse Organization of East Tennessee as part of DOE's effort to convert ETTP into a private sector industrial park.
- ▶ Recontouring and restoration activities are initiated for three contaminated ETTP ponds.
- ▶ Demolition is completed on the K-33 Building at ETTP.
- ▶ Cleanup of the Old Salvage Yard at the Y-12 Complex is completed.

2012

- ▶ Demolition of the K-25 Building's east wing is completed, with the exception of a small portion on the southernmost end that is contaminated with technetium-99.
- ▶ Demolition begins on the K-25 Building's north end.
- ▶ Tank W-1A, the main source of groundwater contamination at ORNL, is removed.
- ▶ Mercury reduction efforts begin at the Y-12 Complex.
- ▶ Removal of legacy materials from Isotope Row at ORNL is completed.
- ▶ Cask Processing Enclosure is completed at the Transuranic Waste Processing Center.

2013

- ▶ Demolition of the K-25 Building's north end is completed.
- ▶ A second solar array, constructed by Vis Solis LLC on CROET property, is constructed at ETTP.
- ▶ Six NaF traps, the highest risk components still remaining, are removed from the K-27 Building.
- ▶ The conceptual design of the water mercury treatment facility at Y-12 is completed.

2014

- ▶ Demolition of the K-25 Building completed.
- ▶ Demolition begins on the K-31 Building.
- ▶ More than 3,500 cubic meters of legacy wastes disposed.
- ▶ Roof repairs completed on Alpha 4 building at Y-12.

# History of the Oak Ridge EM Program (continued)

2015

- ▶ New 1 megawatt solar array opens at ETPP under a partnership between Restoration Services Inc. and Vis Solis Inc.
- ▶ DOE submits a revised draft of the Remedial Investigation/Feasibility Study for a proposed new CERCLA landfill that will supplement the existing waste repository.
- ▶ Demolition of the K-31 Building completed.
- ▶ Radioactive components removed from Building 3042 at ORNL, a former reactor research facility.

2016

- ▶ Demolition of the K-27 Building completed.
- ▶ Preliminary design completed for the Outfall 200 Mercury Treatment Facility.
- ▶ EMWMF logs its 14th year without a lost workday away case.
- ▶ Process pipe removal begins at Alpha -4 Building at the Y-12 Complex.

2017

- ▶ Crews begin cleaning Alpha 4 COLEX equipment at Y-12 for demolition and removal.
- ▶ Risk reduction work conducted at ORNL's Building 3026 and Building 7500.
- ▶ Half of ORNL's Uranium-233 inventory disposed through Direct Disposition Campaign.
- ▶ Demolition of Building K-731, K-732, K-832, K-832-H, K-1203 completed at ETPP.
- ▶ Shipments of transuranic waste resume to WIPP for permanent disposal.
- ▶ Groundbreaking begins for Mercury Treatment Facility at Y-12.

2018

- ▶ Demolition of two high-risk Biology Complex facilities (Building 9743-2 and 9770-2) complete at Y-12.
- ▶ Demolition of the Central Neutralization Facility complete at ETPP.