

# OAK RIDGE OFFICE OF ENVIRONMENTAL MANAGEMENT

Remediating, Modernizing, Reindustrializing



**The Oak Ridge Reservation is home to three campuses that have a rich history of research, innovation, and scientific discovery that shaped the course of the world. Unfortunately, today, despite their vitally important missions, they are hindered by environmental legacies remaining from past operations.**

The Oak Ridge National Laboratory (ORNL), Y-12 National Security Complex (Y-12), and East Tennessee Technology Park (ETTP) house aging facilities and waste that was generated during research and operations during the World War II Manhattan Project and Cold War.

The Oak Ridge Office of Environmental Management (OREM), a U.S. Department of Energy (DOE) field site created in the late 1980s, was formed to address and remove these diverse legacies and risks to protect the region's health and environment, ensure the continuation of vital federal missions, and make clean land available for future use.

## REMEDIATION

OREM's cleanup process focuses on protecting the health and safety of East Tennessee's environment, workers, and residents by removing old, contaminated facilities and addressing affected soil and groundwater on the Department of Energy's 32,000-acre Oak Ridge Reservation.



## MODERNIZATION

OREM enables the progress of DOE's ongoing national security, energy, and science missions by clearing away aging, hazardous infrastructure and opening valuable real estate to house future federal missions that will support the nation.

## REINDUSTRIALIZATION

As OREM completes cleanup projects, its reindustrialization program works to transfer property and facilities to the private sector—creating new opportunities for economic growth in Oak Ridge.



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## FINISHING THE JOB SAFELY

OREM is committed to completing cleanup on the Oak Ridge Reservation, enabling new federal missions and economic opportunities for the community.

### East Tennessee Technology Park

Work is underway to transform this former government-owned **uranium enrichment complex** into a multi-use industrial park that benefits the region's economy. This massive cleanup project will be the largest completed by the Department of Energy. When OREM completes demolition in 2020, it will have eliminated more than 13 million square feet of contaminated, deteriorated structures. This project marks the first time in the world an entire enrichment complex has been removed.



Demolition of Building K-1037

OREM has transferred nearly 1,300 acres of land to the community for reuse and economic development. Another 600 acres are slated for transfer as cleanup is completed. This area is now home to 20 private businesses, and it has many of the amenities needed to attract major industry to Oak Ridge in the years ahead.

### Oak Ridge National Laboratory

OREM is responsible for addressing and removing more than **125 excess, contaminated facilities** in the central campus area that no longer serve a current DOE mission. More than thirty of those structures are considered high-risk due to structural, radiological, or chemical hazards. With cleanup nearing completion at the East Tennessee Technology Park, crews are transitioning to the Oak Ridge National Laboratory to begin large-scale cleanup activities at former research reactors and isotope production facilities.



Employees extract medical isotopes for next generation cancer research

The **nation's supply of uranium-233** is housed at the Oak Ridge National Laboratory. Its removal from the site is OREM's highest priority project, and it will eliminate millions of dollars

in oversight and security costs required to store the material safely. OREM removed half of the inventory in 2017, and processing operations are underway to convert the remaining inventory into a disposal-ready form. Through an innovative partnership with TerraPower, processing operations were able to begin a year ahead of schedule while the medical community received unique isotopes for next generation cancer research. OREM is scheduled to finish processing the remaining material in 2025.

### Y-12 National Security Complex

Y-12 has more than 90 excess, contaminated facilities awaiting demolition. Of those, more than 25 are considered high-risk, and a portion of those were deemed "the worst of the worst" in the entire DOE complex in a report to Congress. Before demolition can begin on some of the site's largest Cold War-era buildings, OREM must complete construction on the **Mercury Treatment Facility** to reduce concentrations of the element in surface waters and capture mercury disturbed during cleanup. After massive structures are cleared away in the western portion of Y-12, OREM will be able to remove the sources of mercury that are trapped in the soil and groundwater beneath these large buildings.

OREM is already ramping up efforts to address risks and hazards at the site. Workers retrieved more than 10,000 pounds of mercury from old equipment, preventing a potential environmental release. Also, crews will finish demolishing the **Biology Complex** in 2021. Completing this project eliminates five high-risk buildings and clears land for new national security missions.



Demolition of the Biology Complex eliminates five high-risk buildings

Continued cleanup and disposal of these buildings will require the construction of an additional disposal facility to contain waste in a safe and environmentally sound way. The current facility near Y-12 is projected to reach its capacity in the early to mid-2020s. A new **Environmental Management Disposal Facility** will be needed to complete the remaining cleanup at the Oak Ridge National Laboratory and Y-12 in a safe, efficient manner.



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