

OAK RIDGE OFFICE OF ENVIRONMENTAL MANAGEMENT (OREM)

“2022 marked another year of significant cleanup progress across the Oak Ridge Reservation. Our teams removed old, contaminated structures at the Oak Ridge National Laboratory and the Y-12 National Security Complex, and they are actively preparing many more for near-term demolition at those sites. These projects are changing the landscape and creating space for DOE to advance important research and national security missions.”

– Laura Wilkerson, Acting Manager, Oak Ridge Office of Environmental Management

HIGHLIGHTS

- **Completed cleanup and transfer of Biology Complex area—an EM 2022 priority.**
- **Began processing uranium-233 material in hot cells—an EM 2022 priority.**
- Completed demolition of the Bulk Shielding Reactor.
- Completed demolition of the Criticality Experiment Laboratory.
- Finished construction of the Sludge Processing Mock Test Facility.
- Signed the final Record of Decision with the regulators for the Environmental Management Disposal Facility.

ENHANCING SAFETY AND CLEARING LAND FOR REUSE

OREM completed a 2022 EM priority by completing cleanup and transferring the former Biology Complex area to the National Nuclear Security Administration (NNSA) at the Y-12 National Security Complex (Y-12). This project provides NNSA an 18-acre area they can reuse as the location for its Lithium Processing Facility that will support national security missions at the site.



Soil is brought in to backfill the former Biology Complex area after slab removal.



A view of crews demolishing the Criticality Experiment Laboratory at Y-12.

Crews were also busy taking down excess contaminated facilities in 2022 that included the Criticality Experiment Laboratory at Y-12 and the Bulk Shielding Reactor at the Oak Ridge National Laboratory (ORNL). Both of these buildings were more than 70 years old, and their removal eliminates high-risk buildings and opens land for future missions. The Bulk Shielding Reactor project marks the first removal of former reactor facility in ORNL's central campus area.

REMOVING OAK RIDGE'S INVENTORY OF NUCLEAR WASTE

Another EM 2022 priority was achieved at the Oak Ridge site with the start of processing operations in hot cells on the remaining uranium-233 material stored at ORNL. Eliminating this inventory of material is OREM's highest priority at ORNL. Its removal will avoid significant costs annually dedicated to keeping the material safe and secure, reduce the security posture of ORNL, and allow OREM to decommission and deactivate Building 3019, which is the oldest operating nuclear facility in the world. Part of this project also involves extracting medical isotopes that are being used to support next-generation cancer treatment research.

INVESTING IN INFRASTRUCTURE TO MAINTAIN PROGRESS

This year, EM completed construction on the Sludge Processing Mock Test Facility. This facility will play a vital role in maturing technologies needed to begin processing Oak Ridge's 400,000-gallon inventory of transuranic sludge waste. Engineers will gather data from experiments there to determine the best designs and approaches for the Sludge Processing Facility's final design.



EM Senior Advisor Ike White and U.S. Representative Chuck Fleischmann discuss the EM cleanup mission at the National Cleanup Workshop in September.



Workers clean up a contaminated area in the middle of the Building K-25 footprint at ETPP.

PREPARING THE EAST TENNESSEE TECHNOLOGY PARK FOR ITS NEXT CHAPTER

With all of the buildings demolished at the East Tennessee Technology Park (ETTP), crews are working to remove areas with contaminated soil. Workers initiated a major soil remediation project to clean up a contaminated area in the middle of the Building K-25 footprint. The project spans nearly an acre, and workers are excavating down nearly 40 feet in some areas to remove all the impacted soil. Completing this project, and others like it, will eliminate risks and help EM achieve its ultimate vision to transform the site into a multi-use industrial center, national park, and conservation area.

EM is also working to transfer all cleaned parcels back to the community that can be reused for economic development. These efforts are attracting major industry to the site and bringing in hundreds of millions in new investments at ETPP.



As part of the national park, this rendering shows a viewing platform overlooking the footprint of the former K-25 building site.