

CLEANUP PRIORITIES FOR THE OAK RIDGE NATIONAL LABORATORY



FACT: Oak Ridge National Laboratory (ORNL) is the largest science and energy national laboratory in the Department of Energy (DOE) system, performing research to find solutions to some of our country's most compelling energy and security problems. The site was first established to produce and separate plutonium for the Manhattan Project. These efforts, and other research over the decades, helped protect and advance our nation but resulted in contamination of ORNL's facilities and the environment.

CHALLENGE: Amid ORNL's modern facilities are a number of inactive, deteriorating, and contaminated buildings and stockpiles of legacy waste that pose potential risks to human health and the environment. They are costly to maintain in a safe and stable condition. The Oak Ridge Office of Environmental Management (OREM) must conduct cleanup and remediation activities while minimizing impacts to ongoing research missions at ORNL.

SOLUTION: OREM will coordinate the safe and efficient cleanup of the ORNL site – including building demolition, waste treatment and disposal, and soil and water remediation. This work eliminates risks, and it clears land for ORNL to conduct future research missions that can usher in the next big discovery.

CLEANUP GOALS

Completing cleanup efforts at ORNL will protect human health and the environment, reduce facility and maintenance costs, and modernize one of DOE's most valuable assets.



Treat, remove and dispose of legacy materials and waste



Demolish more than 125 excess facilities (30+ are high risk)



Remediate contaminated soil, water and infrastructure



Modernize ORNL to enable future science and energy missions



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CLEANUP PROJECTS



FACILITY DECOMMISSIONING AND DEMOLITION (D&D)

125 building D&D projects are planned at the ORNL site, including more than 30 buildings that are categorized as high risk. These projects will enhance safety, modernize the site, and open land for future research missions.

ADDRESSING EXCESS CONTAMINATED FACILITIES

Crews are actively addressing a former research reactor, Building 3010, and a former isotope research facility, Building 3026, in the central campus area. Deactivating these structures paves the way for their future demolition and removes a significant risk from the heart of ORNL while opening land for future missions. Currently, crews at the Building 3026 hot cells are installing a protective tent to cover the area for demolition. Workers will begin tearing down these hot cells in spring 2020.



WASTE DISPOSITION PROJECTS

Two waste disposition projects will remove legacy material that pose a significant risk to ORNL. These projects include processing and dispositioning the remaining **uranium-233** material stored in Building 3019 and treating and disposing the inventory of **transuranic wastes**. Both projects are slated for completion in the mid-2020s.



SURVEILLANCE AND MAINTENANCE OPERATIONS PROJECTS

Ongoing surveillance and maintenance activities at ORNL ensure the large inventory of aging, contaminated facilities and critical waste treatment infrastructure remain in a safe condition until they can be upgraded, addressed or removed. OREM has invested \$17 million over the last two years to extend the life of the Liquid and Gaseous Waste Operations infrastructure. Crews have replaced deteriorated piping, antiquated equipment, and failing electrical systems for the system that is critical to ORNL's ongoing research missions.



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