

# EXCESS CONTAMINATED FACILITIES AT Y-12 AND OAK RIDGE NATIONAL LAB

**FACT:** The Oak Ridge Office of Environmental Management (OREM) is working to reduce risks within the Y-12 National Security Complex and Oak Ridge National Laboratory by better understanding conditions, abating hazards, and stabilizing buildings with deteriorating conditions that increase the chance for exposure and the spread of contamination.

**CHALLENGE:** The Department of Energy has hundreds of excess facilities in Oak Ridge. Many of these facilities have deteriorated to the point where they pose risks to the environment and employees working at the Y-12 National Security Complex and Oak Ridge National Laboratory. Delays in addressing these facilities increases risks and costs for future cleanup.

**SOLUTION:** Funding is now available to begin addressing some of these facilities. OREM has worked with the National Nuclear Security Administration and the Office of Science to develop an integrated approach that addresses the most immediate needs in and around the high risk facilities. These projects will improve worker safety and reduce the costs and complexity of future cleanup by removing threats and helping prevent further migration of contaminants.

The following projects are current priorities for OREM.

## RISK REDUCTION ACTIVITIES

### SITE: Y-12 NATIONAL SECURITY COMPLEX

#### ACTIVITY: ALPHA 4

A former mercury use building, Alpha 4's deteriorating roof allows water intrusion, leading to structural damage and the spread of contamination. OREM is making improvements to the roof. In addition, equipment used in the lithium separation process located outside of the facility is being prepared for removal. The equipment removal will eliminate mercury contamination and structural integrity risks.



### SITE: Y-12 NATIONAL SECURITY COMPLEX

#### ACTIVITY: BIOLOGY COMPLEX

Characterization of large ancillary facilities within the Biology Complex is being performed by OREM. The information will be used to support future demolition of the facilities.



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September 2016

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## RISK REDUCTION ACTIVITIES cont'd

### SITE: OAK RIDGE NATIONAL LABORATORY

#### ACTIVITY: BUILDING 3026

Building 3026 has been demolished along with four of its six hot cells. The remaining two hot cells are being safely maintained; however, conducting more extensive risk reduction activities will allow the hot cells to remain in a more stable condition. To further stabilize the 3026 hot cells, OREM is pumping and treating water from within the tunnel beneath the structures, and grouting the tunnel to prevent the potential migration of contamination.



### SITE: OAK RIDGE NATIONAL LABORATORY

#### ACTIVITY: BUILDING 7500

A leaky roof is causing structural problems for Building 7500. The building's lack of structural integrity makes it unsound to perform inspections and repairs on the facility. The leaking further degrades asbestos material contained within the facility and increases the cost of decontamination and demolition. Building 7500 also poses an environmental risk, as overflowing water from the basement can carry unsafe water if not properly maintained. OREM will remove and dispose of existing asbestos, pump water and remove equipment from the basement, grout the area, and prepare Building 7500 for future demolition.



### SITE: OAK RIDGE NATIONAL LABORATORY

#### ACTIVITY: BUILDING 3038

OREM is working to downgrade Building 3038 below a Hazard Category 3 (defined as a nuclear facility with the potential for significant localized consequences). Work includes changing glove boxes, encapsulating loose contamination, and removing and disposing components from air filtration systems.



### SITE: OAK RIDGE NATIONAL LABORATORY

#### ACTIVITY: BUILDINGS 3028 AND 3029

Located on Isotope Row, Buildings 3028 and 3029 require OREM to encapsulate contamination within the facilities' hot cells, reducing the potential for its migration.



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