ORNL Non-Reactor Facilities D&D

Scope: The Oak Ridge National Laboratory (ORNL) Non-Reactor Facilities Deactivation and Decommissioning (D&D) project will demolish 276 facilities in Bethel Valley (BV) and Melton Valley (MV) that are or will become excess to the site mission needs. The objective of the project is to remove hazardous materials, deactivate the buildings, remove equipment, demolish the facilities, and disposition waste. The facilities slated for D&D consist of various contaminated research, laboratory, hot cell, waste operations, and ancillary/support facilities in the following building complexes:

- **Bethel Valley** — 2000 Complex, 2026 Complex, General Maintenance Facilities Complex, BV Isotopes Facilities Complex, BV Isotope Area Facilities Complex, Central Stack Hot Cell Facilities Complex, 3525 Complex, BV Tank Area Facilities Complex, Southeastern (SE) Services Group Complex, SE Contaminated Lab Complex, 2525 Complex, 2528 Complex, Fire Station Complex, BV Chemical Development Lab Facilities Complex, Hot Storage Garden, East Bethel Valley Complex, ORNL Small Facilities Complex (BV facilities), Liquid Low Level Waste (LLLW) Complex, Sewage Treatment Plant Complex, Process Waste Treatment Plant Complex, and 3019A Complex.
- **Melton Valley —** ORNL Small Facilities Complex (MV facilities), MV Liquid and Gaseous Waste Operations (LGWO) Complex, and Transuranic (TRU) Waste Processing Complex.

The ORNL Non-reactor Facilities total approximately 1.2M ft^2 and are planned for D&D by the Integrated Facility Disposition Program (IFDP) at an estimated cost of over $1.7B.

Environmental Risk and Principal Threat Source Material Rating: **High**

- Potential building collapse due to facility deterioration or fire could result in environmental release of radiological and chemical contamination. For example:
  - Highly deteriorated Building 3026-C/D contains radioactive contamination and has extensive radionuclide inventories in hot cells. Other vulnerable facilities at ORNL include Building 3038, which has deteriorating ductwork that contributed to a Strontium-90 release in 2002; several buildings at ORNL that contain a massive inventory of radioisotopes; and the 2000 Complex, which is contaminated with polychlorinated biphenyls (PCBs), asbestos, and beryllium.
- ORNL Non-Reactor Facility D&D will allow access to residual soil and groundwater source contamination beneath and adjacent to buildings.

Other Prioritization Factors:

- Facility deterioration could increase the complexity and cost of facility D&D. Surveillance and maintenance costs will continue until the facilities undergo D&D.
- In addition to cleanup cost, potential building collapse could shutdown activities in ORNL's Central Campus and cost millions of dollars a day in lost productivity.
- Facility D&D, along with the ORNL Soils and Sediment project, will release strategic real estate.

Overall Prioritization: **Medium**

The deteriorating Building 3026C/D poses a high risk and is the first building slated for D&D by DOE Oak Ridge Environmental Management at ORNL. Early demolition of facilities in the Northwest Quadrant of Central Campus is also planned to facilitate development of the new Science and Technology Park. The overall prioritization for all of the ORNL Non-Reactors Facilities is **Medium**.

The information presented in this fact sheet is preliminary and will be refined during Critical Decision-2/3 development.

For more information, please contact the DOE public affairs office at (865) 576-0885.