

# Materials Science & Technology Building

*Supporting Vital Energy Research*



## PNNL MODERNIZING INFRASTRUCTURE

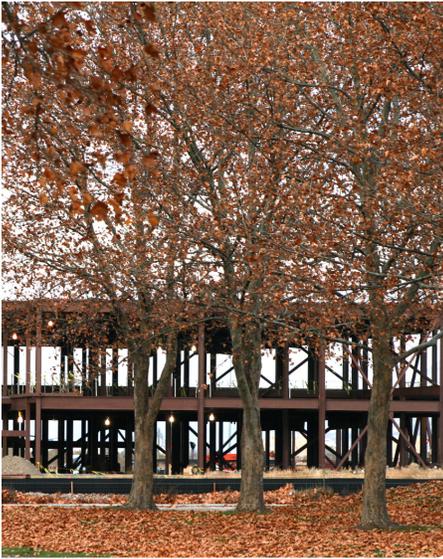
The Materials Science & Technology building is a part of a major construction effort at PNNL, which is transforming the national laboratory. In the summer of 2007, work began on the nearly 200,000-square-foot Physical Sciences Facility (PSF) complex that will house important energy and national and homeland security scientific capabilities, equipment, and staff displaced from accelerated

The Physical Sciences Facility now under construction at Pacific Northwest National Laboratory will be completed in 2010.

cleanup of the Hanford Site's 300 Area. This federally financed replacement facility is jointly sponsored by the U.S. Department of Energy's Office of Science (SC), the National Nuclear Security Administration (NASA) and the U.S. Department of Homeland Security (DHS). The construction effort, the largest in the 40-year history of PNNL, is managed through the Capability Replacement Laboratory project. In addition to the PSF, two privately funded laboratories—the Biological Sciences Facility and the Computational Sciences Facility—are being built.



Currently under construction, the Materials Science & Technology building is one of five new research laboratories that comprise the Physical Sciences Facility.



When complete, the Materials Science & Technology building will enable PNNL scientists to continue to conduct research important to many government clients.

## RELOCATING RESEARCH CAPABILITIES

Much of this scientific research and about 450 staff will be transitioned by 2011 to the largest replacement facility to be built, the PSF. This modern complex will contain three laboratories—Materials Science and Technology, Ultra-Trace and Radiation Detection—as well as a low-level underground laboratory, a large detector laboratory, and a radiation portal monitoring test track.

This new infrastructure will make PNNL the most modern multiprogram national laboratory in the DOE complex. It also more easily enables PNNL scientists and engineers to create multidisciplinary teams that crosscut scientific platforms.

## FACILITY DESIGN FEATURES

- ▶ *Planning LEED Certification—The Leadership in Energy and Environmental Design, Silver level*
- ▶ *Electromagnetic isolation shielding*
- ▶ *12 clean laboratories*
- ▶ *Isolated concrete slabs for vibration mitigation*

## ▶ MATERIALS SCIENCE & TECHNOLOGY BUILDING DESIGN FEATURES

### Scientific Capabilities:

- Radiation materials science
- High-temperature materials
- Fundamental mechanisms
- Computational materials science
- Mechanical properties characterization
- TPBAR testing and component development

### Key Programmatic Research:

- Office of Science Fusion Energy
- National Nuclear Security Administration
- DOE Nuclear Energy Science and Technology

- DOE EERE Office of FreedomCAR
- U.S. Nuclear Regulatory Commission
- EPRI
- International nuclear utilities

### Total Square Feet: 49,730

- 17,858 sq. feet lab space
- 8,767 sq. feet office space
- 2,195 sq. feet common space

### Relocated from 300 Area:

- 326 Building
- 338 Building

Houses 40 staff plus RadCon staff



## ABOUT PNNL

Pacific Northwest National Laboratory is a Department of Energy Office of Science national laboratory where interdisciplinary teams advance science and technology and deliver solutions to America's most intractable problems in energy, national security, and the environment. PNNL employs 4,000 staff, has a \$855 million annual budget, and has been managed by Ohio-based Battelle since the Lab's inception in 1965.

*For more information about the Materials Science & Technology Building, contact:*

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**Pacific Northwest**  
 NATIONAL LABORATORY