

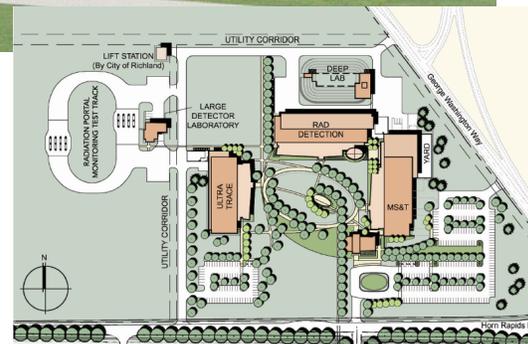
The science and technology that will be developed in the Radiation Detection Building will become the next generation tools for national security.

Radiation Detection Building

Supporting Vital National Security Research



Currently being constructed, the Radiation Detection building is one of five new research laboratories that comprise the Physical Sciences Facility.



PNNL MODERNIZING INFRASTRUCTURE

The Radiation Detection 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 national and homeland security scientific capabilities, equipment and staff displaced by the accelerated 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), National Nuclear Security Administration (NNSA) and U.S. Department of Homeland Security. 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.

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





Construction on the Radiation Detection Building will be complete in 2010. Inset photo: The Deep Laboratory, also to be completed in 2010, will be used for ultra low-level radiation experiments.

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*
- ▶ *Clean room*
- ▶ *Airlock entrance*
- ▶ *In-ground storage well for radiation material*
- ▶ *Machine shop*

▶ RADIATION DETECTION BUILDING DESIGN FEATURE

Scientific Capabilities

- Analytical chemistry
- Radiation physics
- Light detection
- Particle detection
- Ultra-low level counting

Key Programmatic Research

- NNSA
 - Office of Nonproliferation Research and Engineering
 - Office of Nonproliferation & International Security
- Department of Homeland Security
 - Customs & Border Protection
 - Office of Domestic Nuclear Detection
- Intelligence Community

Total Square Feet: 67,443

- 22,340 sq. feet lab space
- 15,898 sq. feet lab space
- 3,005 sq. feet common space

Relocated from 300 Area

- 329 Building
- 326 Building
- 3760 Building



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 Radiation Detection Building, contact:

Jim McClusky, Director
 Capability Replacement Laboratory Project
 Pacific Northwest National Laboratory
 (509) 371-7975
james.mcclusky@pnl.gov
<http://www.pnl.gov/rcf/index.stm>
www.pnl.gov



Pacific Northwest
 NATIONAL LABORATORY