Building 222 D&D Project Completion

creates four acres of buildable space in the Laboratory's core national security area

As a significant participant in the National Nuclear Security Administration/Department of Energy (NNSA/DOE) Facility & Infrastructure Recapitalization Program (FIRP), Lawrence Livermore National Laboratory (LLNL) is improving the quality of its infrastructure by evolving to create new space to build state-of-the-art facilities and attract critical skills for the mission of the future.

Originally referred to as Building 101, the Building 222 complex (B–222S, –222C, –222N) was LLNL's earliest experimental chemistry laboratory facility and home of outstanding achievements during its 50+-year life cycle. In its early years, in addition to an analytical chemistry foundation, research to find peaceful civilian uses for nuclear technology was performed under Project Plowshare, a program inspired by Eisenhower's 1953 "Atoms for Peace" speech. It later became the site for high-explosives research and development. Other incarnations included groundbreaking experiments using gas-mass and triple-quad mass spectrometers, discovering aerogels and oil–shale crack patterns, and the beginning of the Chemistry & Materials Science (CMS) Environmental Services (CES) laboratory.

Unfortunately, the age of the complex, the pace of new technology, and environmental stewardship requirements rendered the old brick and mortar obsolete and too expensive to maintain. After consulting with the California State Historic Preservation Officer, the decision was made to demolish the building.

In the mid-1990s, CMS created the Space Action Team (SAT) to safely manage the migration and consolidation of B-222 occupants into new modern laboratories, primarily in Buildings 132 and 235. Subsequently, SAT, under the sponsorship of the Institutional Facilities Management office, deactivated, decontaminated, and demolished the B-222 complex. Interestingly, the complex began and ended in three stages—it was built between 1952–54 and demolished between 2002–04.

With the creation of the NNSA/DOE FIRP, the B-222 complex became the Laboratory's first major D&D project.

Highlights

- Removed ~66K gsf of footprint to create four acres of valuable space for future national security mission needs;
- Acheived a complex, contaminated demolition with an outstanding safety record;
- Rivaled industry's "best in class" with average demolition costs under $200 per square foot;
- Eliminated over $13M of deferred maintenance and nearly $1M in annual surveillance and maintenance; and
- Avoided $3M in compliance upgrades.

UCRL-AR-206706
This work was performed under the auspices of the U.S. Department of Energy by University of California, Lawrence Livermore National Laboratory under Contract W-7405-Eng-48.

University of California

SSP-04-0044-02-IFM