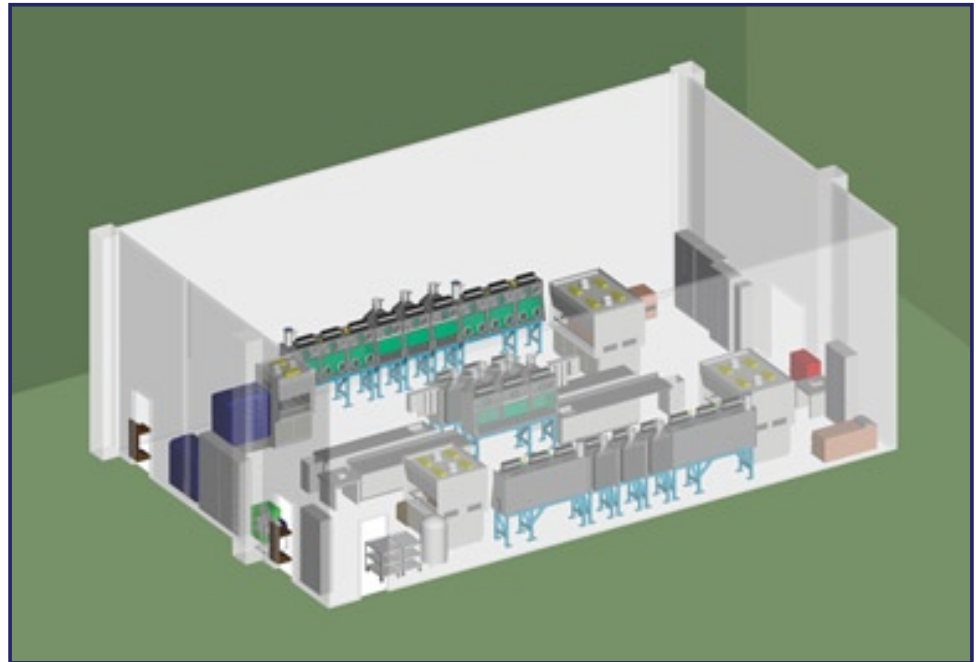


The Chemistry and Metallurgy Research Replacement (CMRR) project at Los Alamos National Laboratory (LANL) is designing and building two new facilities for the National Nuclear Security Administration (NNSA) of the U.S. Department of Energy (DOE). These new facilities will provide a wide range of scientific and technological capabilities including nuclear materials handling, materials processing, fabrication, stockpile management, manufacturing technologies, nonproliferation programs, special nuclear material storage, and waste management capabilities.

The CMRR project is essential for LANL to ensure mission-essential program continuity in support of NNSA's stockpile stewardship objectives beyond the lifetime of the existing LANL Chemistry and Metallurgy Research (CMR) building. Without these capabilities, the reliability/aging of the existing stockpile components cannot be measured (Surveillance), the existing stockpile cannot be certified as reliable (Certification), and new pits cannot be qualified (Pit Manufacturing).

For the Advanced Preliminary Design Phase (Title I-Advanced) of the CMRR project, Merrick developed performance specifications, equipment specifications, equipment layouts, and accompanying documentation for the special facilities equipment such as gloveboxes, enclosures, process systems, material handling systems, and waste management systems for the RLUOB building and the nuclear facility building.



Specific Activities Included:

- Code Analysis
- Criteria Analysis
- Standard Enclosure Design
- Unique Enclosure Design
- Utility Design
- Equipment Models
- Material Transfer Schemes
- Nuclear Facility Layout
- RLUOB Layout
- Engineering Alternative Studies
- System Design Descriptions (SSDs)
- Enclosure Datasheets
- Enclosure Database
- Interface Calculations and Descriptions
- Specifications
- Fly-Through Video
- Operational Readiness Review (ORR) Plan
- Cost Estimate(s)



Groundbreaking ceremony at Los Alamos:
 Pictured left to right at the CMRR Project ceremony are: Joel Leeman, LANL; Tim Nelson, LANL; Thomas D'Agostino, NNSA; Robert Kuckuck, LANL; The Honorable Pete Domenici, U.S. Senate (R-NM); David Beck, LANL; and Donald Cobb, LANL.



A backhoe lifts the first shovel of dirt for the new Radiological Laboratory Utility Office at TA-55.
 Photo Credit: LeRoy N. Sanchez, LANL Public Affairs