



CMRR Public Meeting, September 23, 2009

Volume 8

**Los Alamos National Laboratory
Los Alamos, New Mexico**



done that too. And keep working on the design, essentially, to maintain continuity of the design teams. And then, the budget for '09 was 97.2 million. For '10, the House [US House of Representatives] mark is at 55 million. We're at 97 million in the Senate [US Senate] version. I don't think the two committees have joined yet to reach a conference committee decision, um, because I think Congress has been a little busy lately. So the direction has not changed substantially to the project.

[RICK HOLMES]
Next chart.

[LANL Slide 11]

[RICK HOLMES]

Kinda the highlight schedule. For those of you that haven't seen the history of the project, it's been around for a very long time. Um, a couple of things that have been done is the Congressional Commission on Strategic Posture, sometimes known as the Perry Commission Report, is out there and available. Uh, the Nuclear Posture Review is now planned. We're hearing sometime in February. And we don't control any of that. It's, y'know, the administration's document. Um, and I'll talk about the details of the rad lab schedule and how we get into, ready for radiological operations in that building, when we get to the REI [RLUOB equipment installation] part.

[RICK HOLMES]
Next chart.

[LANL Slide 12]

[RICK HOLMES]

Go ahead

[LANL Slide 13]

[RICK HOLMES]

So, the rad lab itself is essentially three stories of offices. So the fourth floor is the training center, which is intended to replace the training center that's located currently downtown. It will have a couple of simulated laboratories in it, meaning there's some equipment that people can get, get their training on. There are two full levels of office spaces: some hard-walled offices; some are cubicles.

[RICK HOLMES]

The first level has all of the radiological labs in it, in 26 modules. It's scope has not changed in terms of that. And in below grade in the basement, with the mezzanine in it, is all the utility infrastructure: the ventilation systems, etcetera, to run the laboratory, er run, run the building. Adjacent to the rad lab itself is a centralized utilities building. And that building provides for certain commodities: hot water, chilled water, those types of things that support the rad lab operations.

[RICK HOLMES]

9. Required D&D Information

As directed by the DOE Acquisition Executive at CMRR CD-0, NNSA and LANL developed a pre-conceptual cost and schedule range for the D&D requirements of the existing CMR Building located at TA-3 during the CMRR conceptual design. The initial pre-conceptual cost estimate range for D&D of the CMR Building is approximately \$200,000,000 - \$350,000,000 (un-escalated FY 2004 dollars) with an associated schedule estimate range of 4-5 years. This information was presented as part of CMRR CD-1 per Secretarial direction issued at CD-0.

During the 3rd Quarter of FY 2005, the D&D of the existing CMR facility received CD-0 in conjunction with CMRR CD-1 approval. Current Future Years Nuclear Security Program/Integrated Construction Program Plan (FYNSP/ICPP) funding profiles do not include the funding for the D&D of the CMR Facility. NNSA will not initiate CMR D&D activities until completion and operational start-up of the CMRR Nuclear Facility, currently projected to be operational well after the FYNSP budget planning window. As such, budget formulation for CMR D&D is premature for the FY 2011 budget submission. The inclusion of the D&D CMR Facility budget will occur upon the establishment of a project number and update of the FYNSP/ICPP in out year budget cycles.

The CMR D&D commitment is reflected in this CPDS for completeness. However, as planning for this D&D activity matures, NNSA may elect to enable this effort as a separate project, execute it as an element of a wider project or program for a portfolio of D&D activities at LANL, or bundle it with other, yet undefined activities.

Area	Gross Square Feet (gsf)
TA-55-400 (Radiological Laboratory & Office Building)	187,127
TA-55-440 (Central Utility Building)	20,998
TA-55-500 (Security Category I/Hazard Category II Nuclear Facility)	406,000 (beneficial occupancy post FY 2018)
TA-3, Building 29 (CMR)	(571,458)
LANL "banked excess" necessary to offset one-for-one requirement	42,667

Name and site location of existing facility to be replaced: CMR (TA-3, Building 29)

When originally conceptualized, the replacement facilities for CMR, the RLUOB and NF, were thought to result in a significantly smaller space than the CMR facilities being replaced. However, owing to needs to meet modern health, waste, safety, and security functions, the combined space for CMRR is now expected to exceed the space for CMR.

CMRR has incorporated the NNSA Fiscal Year Banking of Excess Facilities Elimination, New Construction and Net Banked Square Footage reporting process that documents, through the DOE Facilities Information Management System (FIMS), the data associated with new construction added by the RLUOB and the NF. The new construction square footage is accounted for once beneficial occupancy is received and is subsequently offset with LANL "banked excess" additional D&D space to meet the "one-for-one" requirement within the FY 2002 Energy and Water and Water Development Appropriations Bill conference report (107-258). Given planned new construction (including CMRR) at LANL and planned excess facility reductions, the excess program is projecting it will have banked well

Chemistry and Metallurgy Research Replacement (CMRR)

Construction

Mello aff 3, par 19, ref 21c



RLUOB Construction Scope

Laboratory - 19,500 sf of Radiological Space

- Capability for 26 Lab Modules
- Laboratory spaces are designed to be flexible and modular
- 4 Lab Modules fitted out in ACCLP contract

Centralized Utility Building - (RLUOB and Nuclear Facility)

- Skid-mounted water treatment system
- Skid-mounted unit to produce de-ionized water
- Packaged boilers to produce heating water
- Chillers to produce cooling water
- Thermal energy (ice) storage unit
- A skid-mounted compressor system to produce compressed air
- Standard electrical power with diesel generated back up supply
- Specialty Gases: argon, helium, nitrogen, regen, & P-10



LALP-08-065

Chemistry and Metallurgy Research Replacement (CMRR)

Construction

RLUOB Construction Scope

Office space for 350 workers

Training Facility and 46 Trainer offices

- 4 classrooms capable of holding 25 trainees
- Space for 2 simulated Labs

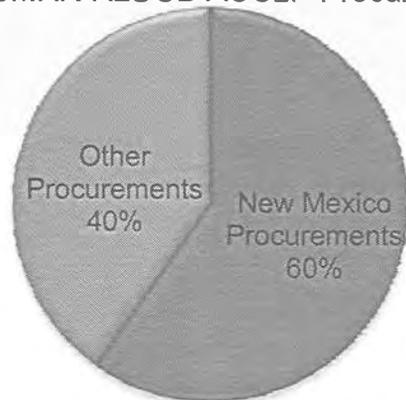
Facility Incident Command Center & Emergency Response Capabilities

Facility Operations Center

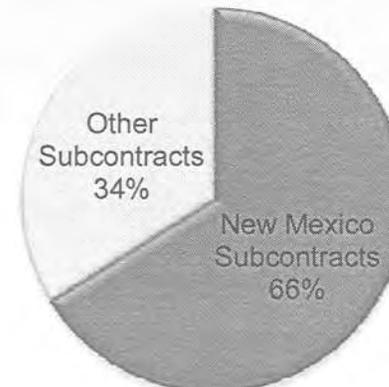
Construction Bulk Commodities

- | | |
|----------------------------------|--|
| ➤ Structural Concrete | 16,800 cubic yards |
| ➤ Structural Steel | 1,010 tons <i>SF: incl. rebar? probably.</i> |
| ➤ Electrical Conduit and Raceway | 197,000 linear feet |
| ➤ Electrical Wire and Cable | 412,000 linear feet |
| ➤ Process Piping and Tubing | 50,000 linear feet |
| ➤ Sheet Metal Duct Work | 8,000 linear feet |

New Mexico Procurements vs.
other CMRR RLUOB ACCLP Procurements



New Mexico Subcontracts vs.
other CMRR RLUOB ACCLP Subcontracts



CMRR Project

CMRR Project: An Overview

The Chemistry and Metallurgy Research Replacement (CMRR) Project primarily supports Defense Program activities at Los Alamos National Laboratory (LANL). Costing \$745M to \$975M over 8 to 12 years, construction is planned in three phases:

- A Radiological Laboratory Utility Office Building (RLUOB)
- B Special facilities equipment, including long-lead equipment and instrumentation
- C Nuclear Laboratory Facility

The CMRR Project will provide the capabilities the National Nuclear Security Administration (NNSA) and LANL need to continue the nuclear mission to maintain and certify the US nuclear stockpile through work in the following areas:

- Pit manufacturing, surveillance, and disassembly
- Enhanced surveillance
- Milliwatt radioisotope thermoelectric generator surveillance
- Retired stockpile component processing
- Aboveground subcritical experiments
- Special nuclear material readiness and materials storage
- Advanced design/production technologies
- Dynamic materials properties
- Material certification in a hostile environment
- Arms control and nonproliferation
- Advanced nuclear fuels

These analytical chemistry, materials characterization, and actinide research and development capabilities, currently housed in the 550,000 sq ft CMR building, will move to the new CMRR facilities as they are completed.

Phase A:

Radiological Laboratory
Utility Office Building
(RLUOB)

Phase B:

Special facilities equipment,
including long-lead
equipment and
instrumentation

Phase C:

Nuclear Laboratory Facility

Phase A: Radiological Laboratory Utility Office Building

The RLUOB will house radiological laboratory space; a training center, 4 classrooms, and 2 nonradiological training simulation labs; a utility building that supports all CMRR Project facilities; and office space to support 350 personnel in segregated (cleared and uncleared) areas.

An Entrance Control Facility will connect a tunnel from the RLUOB to the Nuclear Laboratory Facility.

The RLUOB also will have a Facility Incident Command Center, an operations center, and space for future support of the existing Technical Area 55 Plutonium Facility, PF-4.



A design-build contract, a procurement method already successfully demonstrated at LANL, was issued to Austin Commercial Contractors, LP, of Dallas, TX, in November 2005.

The proposed RLUOB total project cost performance baseline is \$164M (contract life is 1095 calendar days). Approximately 300 construction workers will be employed during the RLUOB contract.

Phases B and C

Preliminary design work is under way on Phases B and C. Construction work for Phase C is scheduled to begin in 2008 and is expected to be complete by 2013.