



**CHEMISTRY  
METALLURGY  
RESEARCH  
REPLACEMENT**

**CMRR Public Meeting, September 16, 2008**

**Volume 6**

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



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# *I. Agenda*

# Agenda

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## CMRR Public Meeting

*Tuesday, September 16, 2008*

**Fuller Lodge, Los Alamos, NM  
6:30 – 8:30**

6:30 – 6:45 Table Topics & Posters – Discussion, Questions & Comments

- Geotechnical, Structural, Seismic & Engineering
- Project Information & Web Site
- Environment
- Construction, Safety & Quality
- Open Table for Settlement Agreement Parties

T. Whitacre, M. Salmon  
G. Drexel, A. Orr  
T. Ladino, N. Seguin  
S. Overton, T. Wilde

6:45 – 7:00 Welcome Carl Moore, Facilitator  
Ground Rules  
Briefing on Public Comment Provisions  
Background and Purpose  
Introductions

7:00 – 7:30 CMRR Project Overview & Update

Mark Dinehart,  
Gilbert Drexel

7:30 – 8:25 Return to Table Topics & Posters – Discussion, Questions & Comments  
[Written comment forms available]  
[Recorded comment area available]

8:25 – 8:30 Closure & Adjourn

Carl Moore, Facilitator

## *II. Handouts*

**SETTLEMENT AGREEMENT  
AMONG  
THE NEW MEXICO ENVIRONMENT DEPARTMENT,  
THE UNITED STATES DEPARTMENT OF ENERGY,  
THE UNIVERSITY OF CALIFORNIA,  
CONCERNED CITIZENS FOR NUCLEAR SAFETY,  
NUCLEAR WATCH OF NEW MEXICO,  
PEACE ACTION NEW MEXICO,  
LORETTO COMMUNITY, TEWA WOMEN UNITED,  
EMBUDO VALLEY ENVIRONMENTAL MONITORING GROUP,  
AND  
NEW MEXICO ENVIRONMENTAL LAW CENTER**

This Settlement Agreement (“Agreement”) is entered by and among the New Mexico Environment Department (“NMED”); the United States Department of Energy (“DOE”) and the University of California (“University”) (collectively referred to as “Applicants”); and Concerned Citizens for Nuclear Safety, Nuclear Watch of New Mexico, Loretto Community, Peace Action New Mexico, Tewa Women United, Embudo Valley Environmental Monitoring Group, and New Mexico Environmental Law Center (collectively referred to as “Interested Parties”), for the purpose of resolving specific disputes concerning the proposed Air Quality Permit No. 2195-N, issued by the New Mexico Environment Department Air Quality Bureau for the Chemistry and Metallurgy Research Replacement Building (“CMRR”) Project at Los Alamos National Laboratory (“LANL”).

**DECLARATIONS**

**Whereas**, the Applicants applied for a New Source Review (NSR) Air Quality Permit pursuant to 20.2.72.200 NMAC on March 1, 2005 for the construction of the CMRR Project;

**Whereas**, after application review and requests for additional information, NMED issued draft NSR Air Quality Permit No. 2195-N to the Applicants on June 10, 2005;

**Whereas**, pursuant to 20.2.72.206 NMAC, NMED issued a public notice and notified the Interested Parties that the pending application and draft permit were available for review and comment by the general public;

**Whereas**, the Interested Parties and the Applicants provided written comments and stated specific objections to NMED pertaining to the draft NSR Air Quality Permit No. 2195-N and NMED proposed to hold a hearing on the draft permit;

**Whereas**, the Parties to this Agreement have met to discuss the draft NSR Air Quality Permit No. 2195-N and objections to the draft permit, and negotiated resolution of those objections in good faith;

**Now therefore**, in consideration of the foregoing declarations and the following terms, conditions, and covenants to be kept, honored, and performed by NMED, the Applicants, and the Interested Parties, each of them agrees as follows:

## **I. AUTHORITY AND SETTLEMENT TERMS**

### **A. AUTHORITY**

1. **The Parties.** NMED is an executive agency of the State of New Mexico (“State”). DOE is an executive agency of the United States. The University is a contractor of DOE and operator of LANL. The Interested Parties are citizen groups and non-profit organizations with the authority to enter into legally binding agreements.

2. **The Facility.** The proposed CMRR Project is planned to be constructed at Technical Area 55 within LANL boundaries and on DOE land. The proposed CMRR Project will replace the existing Chemistry and Metallurgy Research Building at LANL. Pursuant to 20.2.72.200 NMAC, the Applicants are required to obtain an NSR air quality permit from NMED prior to commencement of construction of the CMRR Project.

### **B. SETTLEMENT TERMS**

3. **Permit Application Revision.** The Applicants shall submit a letter within one business day of the effective date of this Agreement to NMED, with copies to the Interested Parties, revising the application submitted on March 1, 2005, limiting the application to only Phase A and B of the CMRR Project. Phase A and B of the CMRR Project include construction of the Radiological Laboratory and Office Building, and a Utility Building (referred to as the RLUOB). The Applicants will affirm in the letter that the March 1, 2005 application will not apply to Phase C of the CMRR Project and that they will request a revision of the construction permit from NMED prior to initiating construction of Phase C. Phase C includes construction of the Security Category I, Hazard Category 2 nuclear facility. Revision of the permit to include construction of Phase C shall be subject to the requirements of 20.2.72.200 NMAC. If for any reason the Applicants are unable to construct Phase C of the CMRR Project, the Applicants shall not incorporate any functions of Phase C that require an air quality permit into the CMRR Project for Phases A and B, without first obtaining an air quality permit for such functions.

4. **Public Comment on DOE Request for Approval from EPA under 40 CFR Part 61, Subpart H.** The Applicants shall publish a public notice and mail notification to the Interested Parties about the availability for review of the Applicant’s request to the U.S. Environmental Protection Agency (“EPA”) for pre-construction approval of Phase C under 40 CFR Part 61, Subpart H. The Applicants shall hold a public meeting and provide an opportunity for dialogue among the Applicants, the Interested Parties, and other members of the public, including local governments. The Applicants shall provide at least thirty (30) days for public comment and shall

respond in writing to any written comment they receive regarding the pre-construction approval request they make under 40 CFR Part 61, Subpart H to EPA. The Applicants shall submit the written public comments and the written responses to EPA with their pre-construction approval request.

**5. CMRR Project Public Meetings.** The Applicants shall publish a public notice and mail notification to the Interested Parties about public meetings to be held at least once every six (6) months to discuss the CMRR Project until physical construction of Phases A, B, and C of this Project is completed; or, if a phase is cancelled, until the completion of the physical construction and turnover to DOE of the approved and funded phases; or until otherwise agreed by the Parties. The Applicants shall provide an opportunity for both written and oral public comment at the public meetings. The CMRR Project meetings shall be single subject meetings in addition to, and will not be combined with, other public meetings the Applicants may hold, including but not limited to, the Sitewide Environmental Impact Statement for LANL (SWEIS). It is understood by all Parties that security and procurement sensitive information cannot be briefed at public meetings.

**6. Annual TAP and VOC Summary Report.** Within one business day of the effective date of this Agreement, the Applicants shall submit a written request to NMED, with copies to the Interested Parties, that NMED include a provision in the permit that the Applicants shall submit to NMED an annual report summarizing emissions of toxic air pollutants (TAPs) and volatile organic compounds (VOCs) found in 20.2.72.500 NMAC, Tables 1, 2, A and B from the CMRR Project Phases A and B.

**7. Public Hearings on Permit No. 2195-N.** The Applicants and the Interested Parties agree that no public hearing is necessary regarding NSR Air Quality Permit No. 2195-N and further agree not to request a public hearing regarding NSR Air Quality Permit No. 2195-N for Phases A and B of the CMRR Project under 20.2.72.206 (B) (2) NMAC, or any other provision of the New Mexico Environmental Improvement Act or Air Quality Control Act or regulations. The Applicants, and the Interested Parties also agree not to appeal the final NSR Air Quality Permit for Phases A and B under 20.2.72.207 NMAC to the Environmental Improvement Board or to the New Mexico Court of Appeals. This Agreement does not preclude the Applicants or the Interested Parties from requesting a public hearing concerning or appealing revisions to the NSR Air Quality Permit authorizing Phase C of the CMRR Project.

**8. Costs.** NMED, the Applicants, and the Interested Parties each shall be responsible for its own costs of performance under this Agreement, except as otherwise provided in the Agreement.

## **II. JURISDICTION AND REMEDIES**

### **A. JURISDICTION**

**9. Jurisdiction.** The parties agree that the laws of the State of New Mexico shall govern any disputes arising under this Agreement and disputes arising under this agreement will be filed in a court of appropriate jurisdiction.



10. **Enforcement.** Should any Party determine that there has been a violation or deficiency in the actions of the other Parties under this Agreement including attachments to this Agreement, that Party will notify the other parties in writing of the violation or deficiency and propose a plan to correct the violation or deficiency. If the other Party fails to respond or fails to cooperate in correcting the violation or deficiency within twenty (20) days of receipt of the complaint, the complaining Party may seek enforcement of this Agreement in court.

11. **Enforcement of Certain Provisions of Agreement.** The Parties agree that enforcement of the public comment on the Applicants' request for approval from EPA under 40 CFR Part 61, Subpart H (paragraph 4 of this Agreement) and the CMRR Project Public Meetings (paragraph 5 of this Agreement) are not part of NMED's air quality permitting process for the proposed CMRR Project. The Parties agree that no Party shall hold NMED liable for enforcement of and the Parties agree to release NMED from all liability associated with the provisions found in paragraphs 4 and 5 of this in the Agreement.

## **B. REMEDIES**

12. **Remedies.** Subject the terms of this Agreement, any Party to this Agreement may seek any equitable or other legal relief available under applicable laws, including attorney's fees and costs that a court awards to a prevailing Party in a legal proceeding that arises under the terms of this Agreement. NMED reserves the right to pursue any relief authorized by applicable statutes and regulations and reserves the right to enforce the permit and this Agreement by administrative or judicial action, which decision shall be in its sole discretion. NMED agrees that it shall not enforce paragraphs 4 and 5 of the Agreement administratively.

## **III. OTHER TERMS AND CONDITIONS**

13. **Legal effect.** Unless otherwise stated in this Agreement, nothing in this Agreement will be construed to restrict any parties' authority to fulfill their responsibilities or assert rights under any federal or state statute or regulation. This Agreement shall be binding on the parties and their officers, directors, employees, agents, subsidiaries, successors, assigns, trustees, or receivers.

14. **Effective date.** This Agreement shall become effective upon execution by NMED, the Applicants and all of the Interested Parties.

15. **Authority of Signatories.** Each undersigned representative of a Party to this Agreement certifies that he or she is fully authorized to enter into the terms and conditions of the Agreement and to execute and legally bind such Party to this document.

16. **Duration.** This Agreement shall continue in effect until construction of Phase C of the CMRR Building is completed; or if Phase C is cancelled, until the completion of physical construction and turnover to DOE of the approved and funded phases; and shall then terminate. The Applicants will provide notice to NMED and the Interested Parties by certified mail of such termination.

17. **Amendment.** This Agreement may not be amended, modified, or altered except by written agreement executed by all Parties to the Agreement.

18. **Force Majeure.** Force majeure shall not apply to this settlement agreement.

19. **Notice.** Notices provided pursuant to this Agreement shall be deemed to have been given when delivered by electronic mail, facsimile, or deposited in the United States mail, postage prepaid, at the addresses listed below, unless the Party in question notifies the other Parties of a different address in writing.

U. S. Department of Energy  
CMRR Federal Project Director  
Los Alamos Site Office  
528 35th Street  
Los Alamos, NM 87544  
Phone: 505-665-5534  
Fax: 505-667-1039  
Email: sfong@doeal.gov

Loretto Community  
113 Camino Santiago  
Santa Fe, NM 87501  
Phone: 505-983-1251  
Fax: no fax  
Email: pmsl@cnspl.com

New Mexico Environment Department  
Air Quality Bureau  
2048 Galisteo  
Santa Fe, NM 87505  
Phone: 505-827-1494  
Fax: 505- 827-1523  
Email: Richard.Goodyear@state.nm.us

NM Environmental Law Center  
1405 Luisa Street, Suite 5  
Santa Fe, NM 87505  
Phone: 505-989-9022  
Fax: 505-989-3769  
Email: dmeiklejohn@nmelc.org

CCNS  
107 Cienega St.  
Santa Fe, NM 87501  
Phone: 505-986-1973  
Fax: 505-986-0997  
Email: [ccns@nuclearactive.org](mailto:ccns@nuclearactive.org)

Peace Action New Mexico  
226 Fiesta Street  
Santa Fe, NM 87501  
Phone: (505) 989-4812  
Fax: 505-989-4812  
Email: [peaceactionnm@aol.com](mailto:peaceactionnm@aol.com)

Nuclear Watch of New Mexico  
551 W. Cordova Road, #808  
Santa Fe, New Mexico 87505  
Phone: (505) 989-7342  
Fax: (505) 989-7352  
Email: [jcoghlan@nukewatch.org](mailto:jcoghlan@nukewatch.org)

Tewa Women United  
RR5, Box 442T  
Santa Fe, NM 87506  
Phone: (505) 747-3259  
Fax: (505) 747-4067  
Email: [tewawum@msn.com](mailto:tewawum@msn.com)

Embudo Valley Environmental Monitoring Group  
P.O. Box 291  
Dixon, NM 87527  
Phone: 505-579-4076  
Fax: no fax

Email: [serit@cybermesa.com](mailto:serit@cybermesa.com)

University of California  
Los Alamos National Laboratory  
Group Leader, Meteorology and Air Quality Group  
Post Office Box 1663, MS J978  
Los Alamos, NM 87545  
Phone: (505) 665-8855  
Fax: (505) 665-8858  
Email: [davef@lanl.gov](mailto:davef@lanl.gov)

20. **Delay or Omission.** No delay or omission in the exercise of any right or duty under this Agreement shall impair such right or duty nor shall it be construed as a waiver of or acquiescence to a breach or default of this Agreement. No Party shall construe the conduct, delays, or omissions of another as altering in any way its own agreements as set forth in this Agreement. Any waiver, allowance, or approval of any claimed breach or default under this Agreement must be in writing and no Party shall raise unwritten waiver or estoppel as affirmative defenses to such claimed breach or default.

21. **Cooperation.** NMED, the Applicants and the Interested Parties shall cooperate fully with each other and act reasonably and in good faith and in a timely manner in all activities under this Agreement so that each of them may obtain the benefits contemplated under this Agreement and for which they have negotiated. No Party shall unreasonably deny, withhold, or delay any consent or approval required or contemplated for any action or transaction proposed to be taken or made in this Agreement. NMED, the Applicants, and the Interested Parties shall consult with and assist each other in good faith and without delay as to all matters that require their cooperation.

22. **Assignment and Subcontracting.** No Party to this Agreement shall assign or transfer any interest or responsibility under this Agreement without prior written approval by all Parties; provided that the University may assign its rights and obligations under this Agreement to its successor as contractor for DOE and operator of LANL. In addition, no Party to this Agreement shall subcontract any portion of the services to be performed under this Agreement without prior written approval of all Parties.

23. **Obligation.** The obligations of the Parties to this Agreement are not affected by the actions of others who are not Parties to this Agreement.

24. **Headings.** The section headings and subheadings of this Agreements are used only for convenience of reference and are not intended and shall not be construed to modify, define, limit, or expand the intent of NMED, the Applicants, or the Interested Parties in this Agreement.

25. **Severability.** If any provision of this Agreement is held invalid or unenforceable, such holding shall not invalidate or render unenforceable any other provision of this Agreement.

26. **Delivery of Written Requests.** If the Applicants fail to deliver the written requests described in paragraphs 3 and 6 of this Agreement to the NMED within one business day after the date when the NMED notifies the Applicants that the last party has signed the Agreement, all Parties are released from their obligations under this Agreement.

27. **Integration.** This Agreement incorporates all the agreements, covenants and understandings between the Parties hereto concerning the subject matter hereof, and all such covenants, agreements, and understandings have been merged into this written Agreement. No prior agreement or understanding, oral or otherwise, of the Parties or their agents shall be valid or enforceable unless embodied in this Agreement.

28. **Facsimile Copies.** Signed copies of this Agreement that are sent by facsimile transmission to the Parties to this Agreement shall be treated as originals.

  
\_\_\_\_\_  
Secretary, New Mexico Environment Department

Date 9/14/05

\_\_\_\_\_  
\_\_\_\_\_, U.S. Department of Energy

Date \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_, University of California

Date \_\_\_\_\_

\_\_\_\_\_  
Concerned Citizens for Nuclear Safety

Date \_\_\_\_\_

\_\_\_\_\_  
Nuclear Watch of New Mexico

Date \_\_\_\_\_

\_\_\_\_\_  
Peace Action New Mexico

Date \_\_\_\_\_

\_\_\_\_\_  
Loretto Community


Date \_\_\_\_\_



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Secretary, New Mexico Environment Department      Date 9/14/05

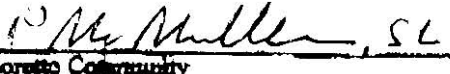
\_\_\_\_\_  
U.S. Department of Energy      Date \_\_\_\_\_

\_\_\_\_\_  
University of California      Date \_\_\_\_\_

  
Concerned Citizens for Nuclear Safety      Date 9.15.05

  
Nuclear Watch of New Mexico      Date 9/15/05

  
Peace Action New Mexico      Date 9/15/05

  
Loretto Community      Date 9/15/05

*Kathleen De Souchy*  
Tewa Women United

Date 9/15/05

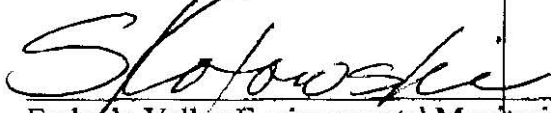
Embudo Valley Environmental Monitoring Group

Date \_\_\_\_\_

*Douglas Mitchell*  
New Mexico Environmental Law Center

Date 9/15/05

Tewa Women United



Embudo Valley Environmental Monitoring Group

Date \_\_\_\_\_

Date September 15, 2005

New Mexico Environmental Law Center

Date \_\_\_\_\_



## Supplier Evaluation Process

The LANL supplier evaluation process includes review of prospective suppliers' QA programs to verify that programs address the applicable requirements for the intended scope of work and to determine the effectiveness of implementation. Alternatively, a supplier may be asked to demonstrate that items or services provided meet CMRR project quality assurance requirements.

## Bid Package Information

The CMRR Project intends to solicit competitive bids from multiple suppliers for the following commodities:

- Build-to-print enclosures
- Push-through gloveports
- Double-door transfer systems

There will be one purchase order awarded for each commodity.

## Requests for Proposal

Requests for Proposal (RFPs) will contain terms and conditions, scope of work, and applicable quality assurance, safety and security requirements. The type of evaluation for each solicitation will be detailed in the Instructions to Offerors included with the RFPs. Awards will be based on best value or the lowest price technically acceptable methodology.

For more information, contact the RLUOB Equipment Procurement Administrator at [reidders@lanl.gov](mailto:reidders@lanl.gov) or visit our website (<http://supply.lanl.gov/procurement/cmrr>).



## CHEMISTRY AND METALLURGY RESEARCH REPLACEMENT



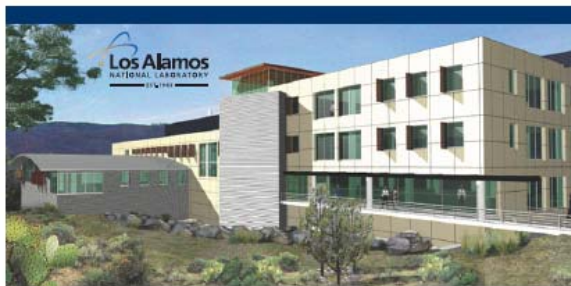
The Chemistry and Metallurgy Research Replacement (CMRR) project at Los Alamos National Laboratory includes the design, construction, and start-up of two new buildings housing state-of-the-art radiological and nuclear laboratories. The new laboratories will provide the analytical chemistry, materials characterization, and actinide research and development capabilities necessary for LANL to continue its mission to maintain and certify the US nuclear stockpile.

## Radiological Laboratory Utility Office Building

The first of these buildings, the Radiological Laboratory Utility Office Building, or RLUOB, is under construction and scheduled for completion in 2010. RLUOB will provide approximately 19,500 net square feet of laboratory space in 26 lab modules that will be equipped to function as an individual unit or combined into larger labs.

## Nuclear Facility

The Nuclear Facility, or NF, will provide approximately 22,500 net square feet of laboratory space in a Hazard Category 2, Security Category I facility. Preliminary design work for the NF has been completed. Engineered equipment to be fabricated for the NF will include 312 enclosures, 28 fume hoods, and a 45-section material transfer system.

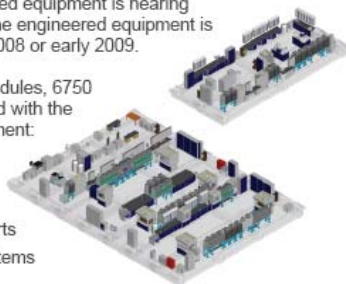


## Furnishing the RLUOB Laboratories

Final design of the engineered equipment is nearing completion. Fabrication of the engineered equipment is scheduled to begin in late 2008 or early 2009.

Initially, 4 laboratories (9 modules, 6750 square feet) will be furnished with the following engineered equipment:

- 26 enclosures, including 19 open-front boxes and 7 gloveboxes
- 136 push-through gloveports
- 7 double-door transfer systems



The enclosures to be fabricated include the following configurations:

Quantity	Configuration
13	1x1 open-front boxes
3	1x2 open-front boxes
3	1x3 open-front boxes
1	1x2 glovebox
6	1x3 gloveboxes

In addition, the interior surfaces of the open-front boxes and gloveboxes will be coated with ethylene-chlorotrifluoroethylene (ECTFE) to improve corrosion resistance.

## Supplier Requirements

Suppliers of items and services to the CMRR project are required to meet the quality assurance (QA) requirements specified in ASME NQA-1-2000, Quality Assurance Requirements for Nuclear Facility Applications; DOE Order 414.1C, Quality Assurance; and 10CFR830, Subpart A, Nuclear Safety: Quality Assurance Requirements.



Documented approval of the suppliers' QA program and listing of suppliers on the LANL Institutional Evaluated Suppliers List (IESL) are required before purchase orders are awarded.

## CHEMISTRY AND METALLURGY RESEARCH REPLACEMENT • August 2007

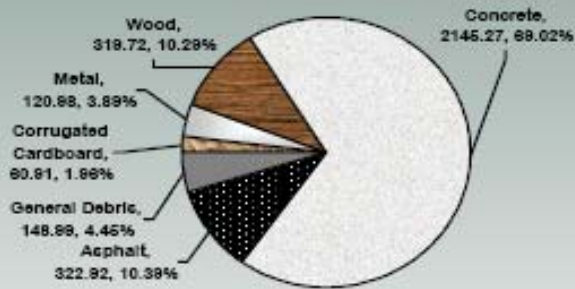


### ***III. Posters***

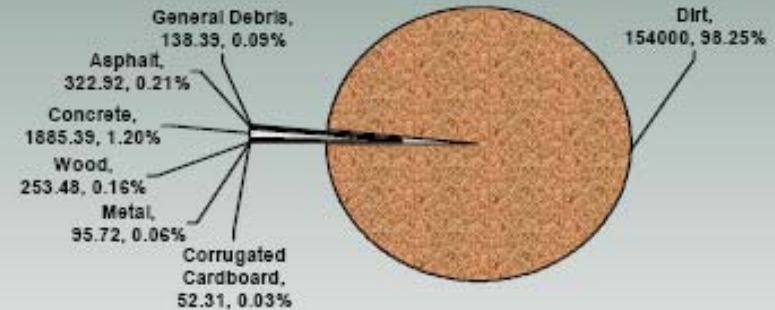
# Chemistry and Metallurgy Research Replacement (CMRR) Environment

## Materials Recycled Through June 2008 (tons, % of total)

Total Materials (excluding soil): 3,108.19 tons  
95.55% Waste Avoided



Total Materials (including soil): 157,108.19 tons  
99.91% Waste Avoided



## Pollution Prevention – Storm Water Erosion and Sediment Control



Turf reinforcement mat and rock for erosion protection and energy dissipation.



Grizzly track-out at construction vehicle access & egress for sediment transport control.

LALP-08-065



Silt saver at RLUOB storm-water discharge location for sediment control.



Georidge™ panels for runoff control and sediment transport.

# Chemistry and Metallurgy Research Replacement (CMRR)

## Environment

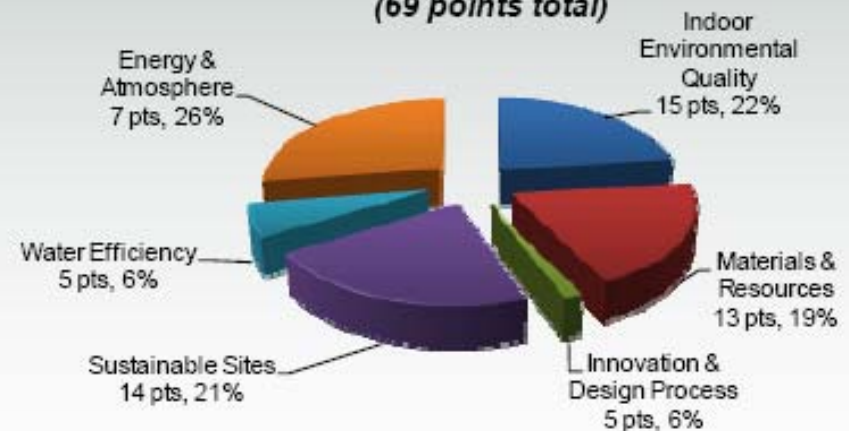
*The U.S. Green Building Council (USGBC) Leadership in Energy & Environmental Design (LEED™) Green Building Rating System® is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings.*

*RLUOB is the first of its kind to be registered with the U.S. Green Building Council. Due to its unique nature and design, the NF is the first of its kind to be in the process of registering with the U.S. Green Building Council.*

**LEED Certification Levels and CMRR Goals**  
(69 points maximum)



**LEED Point Categories**  
(69 points total)

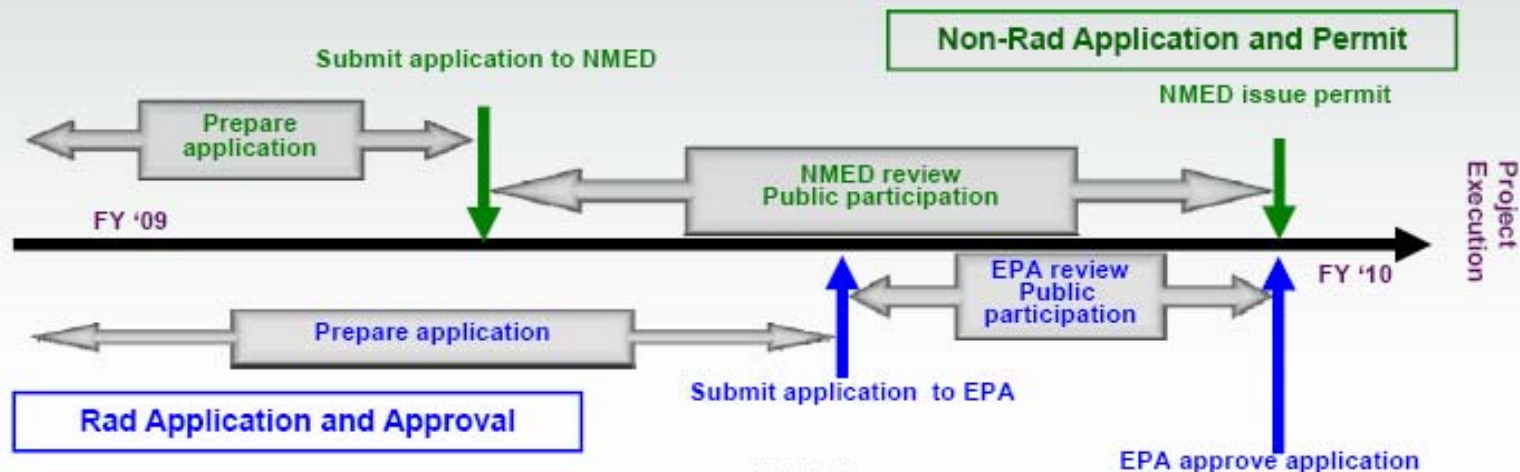


# Chemistry and Metallurgy Research Replacement (CMRR) Environment

## RLUOB Construction – Environmental Permit Status

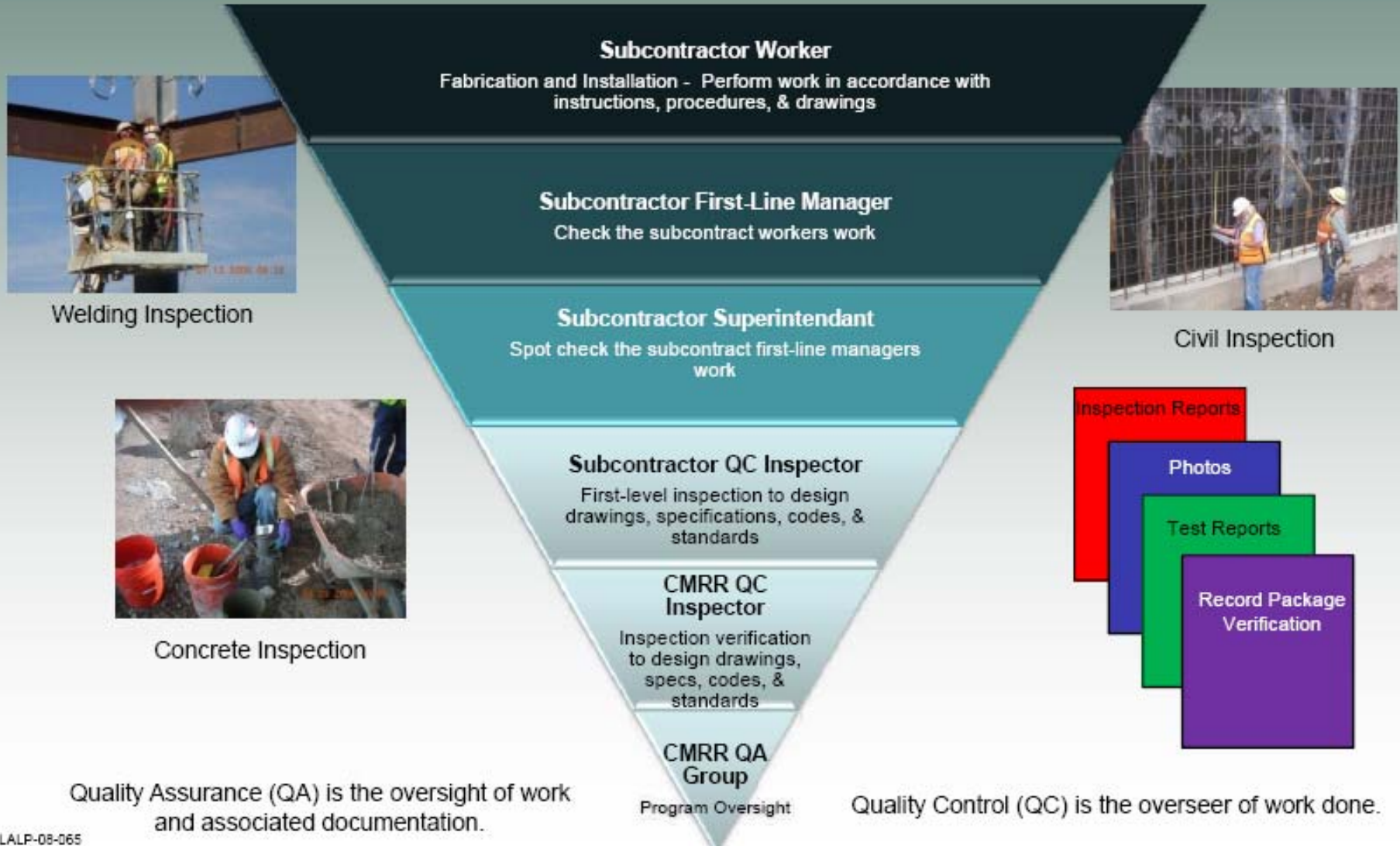
- **Clean Air Act (CAA)**
  - EPA: 40 CFR 61, National Emissions Standards for Hazardous Air Pollutants (NESHAPs) Subpart H for radionuclides other than radon – Approval for pre-construction dated July 14, 2005.
  - NMED: 20.2.72 NMAC Construction Permit for construction and operation of CMRR Phases A and B in accordance with 40 CFR 60 Standards of Performance for New Stationary Sources – Permit No. 2195N issued September 16, 2005. Permit Revision 2195NR1 issued December 20, 2007.
  - Interested Parties Settlement Agreement: Requires public meeting on RLUOB air permit every six months. Signed September 15, 2005.
- **Clean Water Act (CWA)**
  - EPA: Notice of Intent to discharge under the NPDES Construction General Permit filed by UC, LANS, and ACCLP.
  - Storm Water Pollution Prevention Plan (SWPPP): On file and updated, when necessary.
- **Resource Conservation and Recovery Act (RCRA) – Includes RLUOB and NF**
  - NMED: Approval to proceed with construction prior to operating permit issuance dated February 21, 2007.

## Nuclear Facility Construction – Air Permit Timeline



# Chemistry and Metallurgy Research Replacement (CMRR)

## Quality Assurance



## Chemistry and Metallurgy Research Replacement (CMRR)

# Safety

### *CMRR Project Safety Performance January 2007 - August 2008*

#### *People-Based Safety*

- No lost time accidents in over 975,000 hours worked
- People-based safety program – *Daily Observations Getting Safer (DOGS)*
  - Craft-owned & maintained;
  - Team includes carpenters, operators, laborers, ironworkers, and electricians;
  - Over 12,000 safety observations.
- *Project Zero Accident Team (ZAT)*. Comprised of management from ACCLP, CMRR, NNSA, and craft representatives.
  - Safety incentives and recognition for crafts;
  - Weekly site safety walk downs with craft and management;
  - Safety leadership workshops for craft and managers;
  - Safety review of 3-week look-ahead schedule.



DOGS and Zero Accident Team



Steel Erection "Topping Out"  
(Fir tree symbolizes "Safe Completion")



Safety Meeting

# Chemistry and Metallurgy Research Replacement (CMRR)

## Safety

### Safe & At-risk Behaviors

Total observations = 12,593



Total safe observations\* = 11,992  
95%



Total at-risk observations\*\* = 601  
5%



#### Legend

\*At-risk observations: work behaviors that can be changed to improve safe working.

\*\*Safe observations: work behaviors that are performed safely.



# Chemistry and Metallurgy Research Replacement (CMRR) Construction



LALP-08-065



## *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

# 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

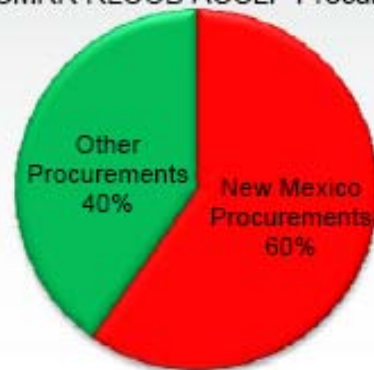
Facility Incident Command Center & Emergency Response Capabilities

Facility Operations Center

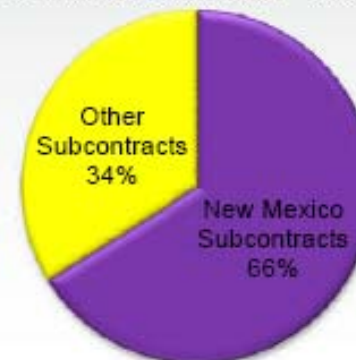
Construction Bulk Commodities

- |                                  |                     |
|----------------------------------|---------------------|
| ➤ Structural Concrete            | 16,800 cubic yards  |
| ➤ Structural Steel               | 1,010 tons          |
| ➤ 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



LALP-08-065

## *IV. Transcript*

# TRANSCRIPT OF PUBLIC MEETING

## Chemistry and Metallurgy Research Facility and Replacement (CMRR) Project

September 16, 2008

The meeting was called to order at p.m. in the Fuller Lodge, Los Alamos, New Mexico at 6:35 p.m. by the facilitator, Carl Moore.

[CARL MOORE, FACILITATOR]

. . . That table is called “environment.” Settlement parties, construction safety and quality [microphone comes on], geotech. Well you see that, it’s on this map, the sheets are available. And the assumption is that if you’d like to do it, there’ll be people available at each of those tables to talk about environment, or any of the other topics, if you’d like to go to those topics. And, and that’s available to you if you’d like to do that for the next ten minutes. And then at a quarter ‘til we’ll ah, ah, go over a few ground rules and start the meeting officially. Uh, and so, please take advantage of that, because there’s information and people to respond to any questions you’ve got. And you’ve got the map. And if you don’t have the map, they’re, they’re at the table when you checked in. Okay.

[The meeting resumed at 6:45 p.m.]

[Slide 1]

[CARL MOORE]

If y’all will have a seat please, we’re gonna get started.

Again, welcome. My name’s Carl Moore. I live in Santa Fe. I’m, I’m a has-been university professor who facilitates meetings. And that’s what I’ve been asked to do here. And, and I, part of my responsibility is to make sure we move through this in the time that’s been allocated. And I’ll be happy to provide any of you with any information about me, if you’d like to either know about me or make contact with me after the meeting, or before the next one.

[Slide 2]

[CARL MOORE]

So we’re gonna go through a couple of orienting slides here. Um, well, let me, in fact, let me make a couple of just logistical things. There is a sign-in sheet here. If anybody would like to make a public comment, and time will be allowed at the end of the meeting for that comment. So, what’s important is that you would put your name and your contact information on the sheet. By contact information, that could be a phone number or email address or anything like that. Okay.

[CARL MOORE]

So, let us know if you would like to make public comment, and this will be made available to you.

[CARL MOORE]

These tables that have been set up here that I mentioned a few minutes ago, that were available for you to go seek information or talk to people, will also be available, obviously, at the end of our meeting. And time will be permitted for you to go back to those tables and maybe go to a different one or seek additional information.

[Slide 3]

[CARL MOORE]

Ah, so, um. We're at 6:45. In a moment we're gonna go over some ground rules. And make sure we are all clear about background, purpose, and introductions, and then we're gonna have an overview and update. And then time will be allowed to return to the tables for raising any concerns you've got, raising any questions, and then, time, if anybody signs up, to make recorded comments, will be permitted for that. Is that all clear? Okay.

[CARL MOORE]

Um, and—

[UNIDENTIFIED PERSON]

[Inaudible comment]

[CARL MOORE]

I don't need to read to you do I?

[UNIDENTIFIED PERSON]

[Inaudible comment]

[CARL MOORE]

Um, background and purpose.

[JONI ARENDS, CONCERNED CITIZENS FOR NUCLEAR SAFETY]

It's important to read the parties, in my view.

[CARL MOORE]

Okay, I'd be happy to do that then. Thanks for the suggestion. Settlement has allowed for air permitting to be segmented to match phased project development and for public involvement. The parties include the New Mexico Environment Department, the Department of Energy, the University of California, Concerned Citizens for Nuclear Safety, Nuclear Watch of New Mexico, Peace Action New Mexico, Loretto Community, the TEWA Women United, the Embudo Valley Environmental Monitoring Group, and the New Mexico Environmental Law Center. And, as you know, the meetings are held every six months to update the public on construction progress. Okay?

[Slide 4]

[CARL MOORE]

Um, suggestions for this meeting from the last meeting were that the LANL seismic study and the report information be provided, written responses to the settlement party, written questions about the project, air permitting update, more time for meeting attendees questions, answers, and information exchange. And that explains in part the reason for the design of this meeting.

[Slide 5]

[CARL MOORE]

The ground rules are to, and, and, uh, if there are any other ground rules than these that we ought to add, I'll ask for those in just a minute.

- To listen respectfully.
- To share the conversation time with other participants.
- To turn cell phones off or place on mute, or stun, or whatever that category is.

- No personal attacks. Usually what that means to me, is the group can be as hard as it needs to be on ideas, but that's no reason it should not be considerate of each other. So, there's no reason to be rude, even if you have something hard to say.
- Um, we have a station for submitting recorded comments. If you choose to submit recorded comments, you'll say your name, and then speak slowly and clearly.
- There are forms for submitting written comments. If you choose to submit such comments, in fact, those forms are in the back of this map page. On the back there's space if anybody wants to submit a written comment.
- Um, topic requests for future meetings can be left on the flip chart at any time. I'm going to specifically ask for that just before we close today.

[CARL MOORE]

Are there any other ground rules other than these that the group needs to feel comfortable in going forward? Okay. Ahm. Okay. We're at the presentations that, um, ah, Mark Dinehart [LANL, Integrated Nuclear Planning] and Gilbert Drexel [CMRR Project Leader] are going to make. Who's going first? Mark?

[CARL MOORE]

Do you get this? Or do you—

[MARK DINEHART, DEPUTY PROJECT DIRECTOR, INTEGRATED NUCLEAR PLANNING]

I think I get your wire there.

[MARK DINEHART]

Yeah.

[CARL MOORE]

Okay.

[UNIDENTIFIED AUDIENCE MEMBER]

Do you have a handout?

[MARK DINEHART]

I don't. Do we have a handout for this presentation? I don't have a handout.

[LORRIE BONDS LOPEZ, LANL OUTREACH AND PUBLIC INVOLVEMENT]

Everything will be provided with the transcript at the end—  
in about a month.

[Slide 6]

[MARK DINEHART, DEPUTY PROJECT DIRECTOR, INTEGRATED NUCLEAR PLANNING, LANL]

Good evening. My name is Mark Dinehart. And I am the deputy project director for Integrated Nuclear Planning at the Laboratory. Most likely you are familiar with seeing Tim Nelson [Project director, Integrated Nuclear Planning, Los Alamos National Laboratory] at this presentation. He's been involved with CMR replacement project for many years. I've been his deputy in his roles at the Laboratory for about the last five years and Tim and I have actually worked together for about 15 years here at the Laboratory.

[MARK DINEHART]

Um, Gil and I would like to refer to ourselves as the B-team, because, as you know, Steve Fong [Project Manager, Los Alamos Site Office, NNSA/DOE] is usually here as well, and he's not here to night. So the B-team is gonna take over. I'm sorry Tom [Whitaker, Project Manager, Los Alamos Site Office, NNSA], I'm gonna offend somebody—  
[laughter]

[MARK DINEHART]

The goal is that [laughter] at the end of this meeting the B-team will ask you if this was the best meeting there has been, and hopeful you'll agree that this was the best meeting. We are trying a new format. So, please give us some feedback on that information.

[MARK DINEHART]

What I'm gonna cover for you today is simply the introduction to the project. If you've been to these meetings the last five times, you'll know the project pretty well but realize there are people in the audience that don't understand some of the basic details of the project. So we'll go through those fairly quickly and then move into the table [conversations]. So you can go to my first slide.

[Slide 7]

[MARK DINEHART]

The CMR project stands for Chemistry [and] Metallurgy Research Replacement Project. I will, if somebody will keep track, I'll make a dollar donation to the United Way for every acronym we use tonight that we don't define for you. We are very bad, at that, so please raise your hand and remind me that we're using acronyms. That's not a good thing to do.

[MARK DINEHART]

Ah, in the project documentation, this is a very formal project within the Department [of Energy], uh, and we have a very clear document that tell us what the mission need statement is. We've used this every time. I'll read this to you. "The CMR Replacement Project seeks to relocate and consolidate mission critical CMR capabilities." If you are not aware, there is a CMR building that we are replacing. This is a picture of the 1949 construction site when the building was started. You'll notice the vintage automobiles on this site. [Points to picture at lower left of slide.] And this is a picture of the completed building that sits on Laboratory property today. [Points to picture at lower right of slide.] We are trying "to relocate and consolidate mission critical capabilities at Los Alamos National Laboratory to ensure continuous support of NNSA—okay, tell me what NNSA stands for—National Nuclear Security Agency—

[UNIDENTIFIED AUDIENCE MEMBER]

Administration.

[MARK DINEHART]

Administration, very good, thank you—stockpile stewardship and management strategic objectives." I'm not sure I could tell you what "management strategic objectives" are, but they are all rolled up in, in the programs associated with NNSA's weapons program and stockpile stewardship efforts. "[T]hese capabilities are necessary to support the current and directed stockpile work and campaign activities at Los Alamos National Laboratory beyond 2010."

If you've been to previous meetings you'll know that the authorization basis, the license to operate CMR, is currently valid through 2010. And that was the date targeted to move the CMRR project to replace that project. Obviously there have been delays in when this project will fully replace the CMR facility. Go to the next [slide].

[Slide 8]

[MARK DINEHART]

Ah, two of the major components of this building, and the activities that we are trying to replace are, are characterized as analytical chemistry and material characterization. That is what we currently do in the CMR Building, the Chemistry [and] Metallurgy Research Building that was built in the 50s. We commonly refer to that as “AC/MC.” I will try to use analytical chemistry and material characterization for you today.

[MARK DINEHART]

In describing analytical chemistry, I’ll tell you that analytical chemistry, if you’ve heard of analytical chemists, or you’ve heard of chemists, these chemists are doing, uh, wet chemistry on machines that are common across the industry, and most all industries. And they are using those instruments to tell us what’s happening to our nuclear materials. They are telling us whether we’ve got the right quantity of nuclear materials, whether we are throwing away the right quantity of nuclear materials, whether we’ve got weapons that’ll last for a long time. That analytical chemistry information, how much material is there, what form it is, is giving us the information we need to operate and do those missions. Very common techniques that you would find in industry, for instance in the semi-conductor industry, an analytical chemist would tell you what’s in the water that he’s washing the semi-conductor chip with. We’ll do the same thing. We’ll need to know the basic characteristics of all our chemical processes through analytical chemistry.

[MARK DINEHART]

Material characterization is mostly, um, it’s a broad field, but the primary activity that happens here is metallography. So we’re looking at the characteristics of metals or oxides, not using analytical chemistry instruments, but using other instruments that a metallographer would use so that we can understand the properties of plutonium metal or plutonium oxide in, ah, in a, more of a material characterization sense. Very common techniques. Obviously we’ve used these for many, many years. They are currently housed in the CMR Building, the Chemistry and Metallurgy Research [Building], and we’re trying to move those.

[MARK DINEHART]

The key point on the slide is that the CRM analytical chemistry and material characterization capabilities support core programs at Los Alamos [Laboratory]. If you look across the instruments that we are placing in this new building and the instruments that exist in the current building, they support every program at Los Alamos that has anything to do with nuclear materials. So, everything from plutonium weapons, to waste management, to our ability to do material control and accountability on nuclear materials. Um. Our nonproliferation programs, we need to know where that plutonium is, where those materials are, where that nuclear material is, not just plutonium. Um, a wide variety of programs across the board, including material disposition, getting rid of plutonium. We need to know that we got rid of it or where it’s at, how we are handling it.

[MARK DINEHART]

Um, the CMR replacement facility will replace those capabilities at CMR. So it’ll provide a physical means for accommodating the continuation of those activities at the Chemistry [and] Metallurgy Research facility once it’s shut down. Um.

[MARK DINEHART]

And it will do that in a safe, secure, and environmentally sound manner. And I think you’ll see that as you go through the posters tonight. The attention that the project is paying toward safety, security, and environmentally compliant [activities]. The project itself seeks opportunities to modernize those operations that are currently at CMR. That’s not real challenging when you saw the cars that were there. Obviously the facility, uh, the opportunities for us to modernize what’s happening at the Chemistry [and]



Metallurgy Research facility are, are, uh, large. We have a lot of opportunities to do that. And you'll see some of those around the room tonight, those opportunities.

[MARK DINEHART]

With, with the safe, secure, and environmentally sound, we are also looking for opportunities to reduce the overall footprint of the current CMR Building with the new building that we are talking about. And we'll actually talk about two facilities that I'll try to discuss in a second. We'll also, um, go through, when I get to another slide, we'll show you how moving the CMR Building closer to the existing nuclear facility, plutonium facility, improves our security posture and will reduce our security costs. Right now they are separated by some distance and we have to maintain two security envelopes. Once we reduce those to the same site, we can reduce those security costs. Okay?

[UNIDENTIFIED AUDIENCE MEMBER]

[Inaudible words without microphone]

[MARK DINEHART]

Yes?

[UNIDENTIFIED AUDIENCE MEMBER]

[Inaudible words without microphone]

[MARK DINEHART]

Yes? I'm sorry. Thank you.

[More inaudible voices without microphone]

[Slide 9]

[MARK DINEHART]

So the scope of the project is important. We talked about the Chemistry [and] Metallurgy Research [Building] replacement. And we are replacing a single building, a very large single building, with actually two facilities, two buildings. Those are the Radiological Laboratory Utility Office Building. (I did not come up with that name.) Um, we refer to that as "the RLUOB," [pronounced rue'lob] believe it or not. And it is a radiological laboratory, with laboratories that you'll see under construction, a utility building that supports not only this building [points to the picture on the left of the slide], the radiological lab, but the nuclear facility that I'll talk about in a second, and a utility building, oh I'm sorry, and an office building that just supports the workers that are currently at CMR that would be transferred over. So, an office building, a utility building to support both functions, and a radiological laboratory, uh, consisting of, uh, 30 laboratories? Is that correct?

[UNIDENTIFIED VOICE OFF MICROPHONE]

Twenty-four.

[MARK DINEHART]

Twenty-four? Okay. Um, actually most of that is written right here for you. So, almost 20 thousand square feet of radiological laboratory space. Centralized utilities. Office space for 350 workers. A consolidated training facility. Uh, and a facility incident command and emergency response capabilities that support that whole nuclear complex when it's constructed.

[MARK DINEHART]

The status of that radiological laboratory utility office building is it is under construction and I believe you'll see that extensively tonight. Um, an important part of that project is the equipment that goes into that building. So we are building a shell of a building. We're building the lab space, we're building all the utility support for that, and then we're putting very highly specialized equipment into those laboratories. Um, and that equipment, um, includes this, this other phase that we are showing you on this part of the slide, shows you that we're gonna put lab room equipment and finishes in there, all the security equipment and telecommunications, and all the final tie-ins. So, I think in the past we've showed you what a glovebox looks like. We've showed you how operations are done in a glovebox. We'll be glad to go through that in the poster session tonight. Most of these operations are either done in gloveboxes or hoods or analytical pieces of instruments that I've shown you or talked to you about earlier. Cathy [Flavin], you have, you have some pictures of gloveboxes and open-front hoods?

[CATHY FLAVIN, FIRST LINE MANAGER, CMRR, PROJECT ENGINEERING, ENGINEERING SERVICES DIVISION]

[Inaudible response without microphone]

[MARK DINEHART]

Yeah, we have—

[CATHY FLAVIN]

[Inaudible response without microphone]

[MARK DINEHART]

Okay. So the actual construction of the building is, uh, basedlined and in construction. You can see the cost at 164 million. "TPC" stands for total project costs. And the equipment that goes in there is currently, the baseline for that activity is being reviewed currently, and we are expecting to start procurement later this year, of that equipment that'll support that laboratory. Okay.

[MARK DINEHART]

The other part of the CMR replacement project is the nuclear facility. The nuclear facility is obviously a much larger facility. It has a similar amount of laboratory space, just over 20 thousand square feet of lab space. It also has a large storage vault. Special nuclear materials storage vault that'll hold about six metric tons of material, nuclear material. And, in the scope of that project, once again, is this special facility equipment that'll go into that building, all the analytical chemistry, all the material characterization instruments, as well as the gloveboxes and hoods and things like that.

[MARK DINEHART]

Um, its baseline is under development. And it is currently in a status of trying, of preparing for final design to start. So, in the lingo of construction language, it's gone through a prelim— it's gone through a conceptual design, hold me accountable for this guy, it's gone through a preliminary design, and it's now in the mode of just getting ready to move into final design. Okay. Those are all words that are very standard in the Department of Energy language on how to manage a large construction project.

[MARK DINEHART]

Any questions about those two facilities? So, we are building two facilities. And actually the next slide gives you a little representation of how those facilities fit together.

[Slide 10]

[MARK DINEHART]

If you don't drive up and down Pajarito Road very much any more, which you probably don't, this is the existing plutonium facility. It's been there since it became operational in 1978. I think it started design and construction in 1972. It sits here, and next to it, um, under construction currently right now is the radiological laboratory and utility office building, which you'll see pictures of, that are going up now. And the, the building that is preparing to go into final design is the nuclear facility. So you'll see the difference in size of those buildings, and all that's really related to the safety and security equipment because this nuclear facility has significantly larger quantities of nuclear material than the radiological laboratory has in it. So it has a lot more infrastructure to insure safety, security, and environmental compliance. Okay. Questions for me?

[MARK DINEHART]

I think Gil's [Drexel] gonna talk about something else, but yes, go ahead.

[SCOTT KOVAC, NUCLEAR WATCH OF NEW MEXICO]

Could we go back a slide?

[MARK DINEHART]

We can. And I can get out of the way.

[MORRISON BENNETT, TRANSCRIBER]

Please say your name each time you ask a question.

[SCOTT KOVAC]

Scott Kovac.

[MARK DINEHART]

So we can go back. If that's okay with you. Yes, Scott?

[Slide 9]

[MARK DINEHART]

Space utilization, right?

[SCOTT KOVAC]

The six metric tons of the special nuclear material, where is that now?

[MARK DINEHART]

Um, probably not any one place where I could tell you. So some of it is in TA-55, in the plutonium facility. TA-55 stands for "Technical Area 55." You can tell I don't want to make a buck donation.

[laughter]

[MARK DINEHART]

Um, there's a vault in the, in the plutonium facility that houses material. Some of that material will be moved to this location. Some of that material is in the current CMR Building, Chemistry [and] Metallurgy [Research] replacement facility; and I think the rest of it's probably undefined across the complex.

[SCOTT KOVAC]

Okay.

[MARK DINEHART]

Yeah.

[SCOTT KOVAC]

And then can I ask another question?

[MARK DINEHART]

Yeah.

[SCOTT KOVAC]

I'm Scott Kovac again.

[MORRISON BENNETT, TRANSCRIBER]

I just realized, I'm not gonna' be able to get you on the tape anyway without a microphone.

[SCOTT KOVAC]

Oh.

[MARK DINEHART]

Do I need to get him one?

[MORRISON BENNETT]

Yes.

[MARK DINEHART]

Okay. Can we get a microphone for him?

[UNIDENTIFIED PERSON]

He's used a microphone. He's been here.

[SCOTT KOVAC]

Um, what is the square footage of the nuclear facility? The total square footage?

[MARK DINEHART]

Uh, let's see, who can give me the exact number? Cathy [Flavin] can you remember the exact number?

[CATHY FLAVIN, OFF MICROPHONE]

I don't remember the exact number. It's like two hundred and sixty-eight [Continues with inaudible words]

[MARK DINEHART]

Since it's in design it floats around a little bit. But I'd say it's 240, 250 thousand square feet gross. Right?

[UNIDENTIFIED PERSON]

[Inaudible words off microphone]

[MARK DINEHART]

What'd you say? Two eighty?

[UNIDENTIFIED PERSON]

Two hundred seventy plus.

[MARK DINEHART]

Two hundred and seventy plus.

[UNIDENTIFIED PERSON]  
[Inaudible words]

[MARK DINEHART]  
Go ahead.

[CATHY FLAVIN]  
Of that, only the twenty-two thousand feet is lab space. The rest is, there's an ops building to provide HVAC support and fire suppression support, which is probably about a third of the space. The lab building has HEPA filters and stuff on the basement and mezzanine floor and then the vault is the rest of that, so, the entire building is about 270 thousand.

[Inaudible conversations without microphones]

[MARK DINEHART]  
Cathy.

[CATHY FLAVIN]  
Cathy Flavin. I'm the project engineering manager.

[UNIDENTIFIED PERSON]  
Just hang onto that Cathy.

[UNIDENTIFIED PERSON]  
You can pass.

[JAY COGHLAN, NUCLEAR WATCH OF NEW MEXICO]  
My name is Jay Coghlan, with Nuclear Watch [of] New Mexico. Now you just said that gross square footage to the nuclear facility is 270 thousand square feet. And that's significantly higher than I believe I've heard before. So, that's interesting.

[JAY COGHLAN]  
In the complex transformation supplemental programmatic environmental impact statement, there is an alternative for nine thousand additional square feet of so-called lab space, which I think is better described as processing space. Um, but is that additional processing space going forward at this particular period in time? In design, of course.

[MARK DINEHART]  
It is not going forward. At any, in any design we have on the books right now, that nine thousand additional square [feet] is simply an option in the preferred alt—, in the alternative cases. It's nowhere in the design space that we've moved forward is nine thousand extra square feet of processing space, which is, lab space, processing space.

[UNIDENTIFIED PERSON]  
[Inaudible, without microphone]

[MARK DINEHART]  
Good? Okay? Thank you.

[GIL DREXEL, LANL CMRR PROJECT LEADER]

Am I live? Good evening. My name is Gil Drexel. I'm the CMRR— I'm gonna donate two thousand dollars to the United Way, just right now—

[laughter]

[GIL DREXEL]

—project director. I am the deputy to Rick Holmes [Division Leader, CMRR Division Office, LANS], which you're probably familiar with. He was kinda Dan Aykroyd up here. He's got [lowers voice] that kinda voice. Ahm. My background. I'm new to the CMRR project. I've been here since March of this year. I've been off and on supporting the project since July of last year. I've come from 28 years of nuclear industry, from engineering, construction startup, operations, maintenance, and decommissioning.

[Slide 11]

[GIL DREXEL]

The overall facilities we have here—go to the next slide—and I wanna put a pitch in for Mark [Dinehart]. Mark's organization integrates all the nuclear facilities on, on, on the Lab. A key element that allows us to assure that the things that we are doing with the new line item project that we are putting in place is consistent with the Lab's approach as well as the complex within the NNSA. And so, I just wanna let know, even though we're the B-Team, we actually know what we're doing.

[MARK DINEHART]

Don't think we're the A-Team.

[GIL DREXEL]

Yeah. High-level schedule. This gives you an idea of progress. And these are some of things that uh, currently we just went through a very thorough independent review from the Office of Engineering Construction Management to evaluate our overall progress on the project. So, we get checked, double checked, and triple checked, to make sure that we're following all the critical decisions that are required on the project. So, if you notice, back in 2002, we went through a Critical Decision 0. What that basically did is define the mission need to replace the Chemistry [and] Metallurgy Research facility. 2004, the environmental impact statement Record of Decision was signed. 2005, our Critical Decision 1, we obtained authorization that approved the alternative selection and cost range. And what that means, is, we put together a, what they consider a CD-1, or Critical Decision 1, um, Class 3 estimate. And what that does, it takes into account all the quantities, the initial, ah, um, design out of CD-0, and basically defines what the cost range is gonna to be for the entire project. As Mark [Dinehart] identified the total project costs for the rad lab, that defined the total project cost for the new facility, as well as the rad lab.

[GIL DREXEL]

In 2005, for the rad lab, CD-2/3, that's a combination of critical decisions— Normally in the, the DOE process, you get a Critical Decision-2, which basically states that your design is ready for final design. And then your Critical Decision-3 authorizes you to proceed into construction and purchase your long-lead procurement items. 'Cause it takes a couple of years to get the special facility equipment. That was granted for the rad lab. And that's what's currently under construction.

[GIL DREXEL]

In 2007, the rad lab equipment final design authorization, that was to allow us, for the special facility equipment that would go into the rad lab, we gained approval to proceed with the design, and we are currently looking at, uh, the Critical Decision-3 for the construction.

[GIL DREXEL]

So, this year, what did we accomplish? Just that. In July of this year, just right after Fourth of July, all rested up, we went through a[n] uh, external independent review. And that's when the Office of Engineering Construction Management comes in, our corporate parent organizations come in, and what they do is what we call a "red team review." They basically challenge the engineering output that's been developed for this phase of the project. They challenge the construction execution, methodology, to make sure that that's underpinned with some quantities and design output. They challenge our overall cost and schedule baseline. To take what we had at CD-0, at CD-1, and make sure that we've evolved that into the Critical Decision-2/3 phase. That usually takes a week or more.

[GIL DREXEL]

The report has just been generated. We've responded to some comments. Uh, out of probably four to five thousand dollar— five thousand documents, uhm, the team consisted of about 14 to 15 subject matter experts across the country, folks that have been there, done that, that have gone through and built facilities and commissioned those facilities, and we had *one* finding. And what that was, is basically our baseline did not reflect the scope of work for the facility that we are currently building and the scope that's within an equivalent installation. What we had done is taken some scope out of the facility, 'cause when folks built that schedule back in that time frame, they said, "This is the best plan we have based on this time frame, and what we know as far as the strategy."

[GIL DREXEL]

As the design was issued, [a] construction execution plan was generated and executed. Some folks said, "You know what, we've got some issues with the upper floors and all their design to support the laboratory complex. Rather than build those uh, walls, build those supports, and then have to tear them out during this phase of the project, let's go ahead and pull that scope out now, and defer it into equipment installation, so, based on design and cost, that we can avoid spending additional dollars on that activity." That was the only finding they found. And I've been through, um, eight of those EIRs, or external independent reviews, at Savannah River, in Oak Ridge, and Portsmouth and Paducah— Paducah Kentucky, Portsmouth, Ohio— uh, at the Yucca Mountain project, and others, and, uh, that's pretty unheard of. That just means that the project team that put that, those elements together, um, checked themselves, and triple-checked themselves and made sure that they challenged themselves on the technical requirements and the programmatic issues.

[GIL DREXEL]

What we also had planned for this year. And this is where Cathy Flavin, our design authority and our project engineering manager for the CMRR project— we are going to go through a nuclear facility safety basis and design integration and technical review. What that does, is we bring in again subject matter experts [from] across the country, they are not tied to our project, that are considered experts and independent of the results of this type of review. And we are gonna to perform that review to allow us, as Mark [Dinehart] said, to proceed into final design.

[GIL DREXEL]

Future years, as we lined out 2009, -11, and from 2010 to 2016, ah, we expect to receive authorization to proceed on our final design contract based on this successful review. And that review is right now scheduled for about December of this year. And then we have follow-up reviews in January, February, and March, and then we, our NNSA federal project directors will determine whether we move forward.

[GIL DREXEL]

But this piece here [points to "2010-2016 CMRR Nuclear Facility Construction"] will be the result of a successful review here [points to "2009 CMRR Nuclear Facility Final Design Contract Authorization"]. So we expect that to happen in the latter part of next year. Probably around the September–October time

frame. Uh, 2011, operations. Right now, and I'm gonna let Steve Overton tell us what percent complete we are on the radiological facility—

[STEVE OVERTON, CMRR DIVISION, CONSTRUCTION MANAGEMENT]  
Fifty percent.

[GIL DREXEL]  
Fifty percent.

[STEVE OVERTON]  
[Inaudible words without microphone]

[GIL DREXEL]  
And, uh, the expectation is in 2011, we will hand to our TA-55, Technical Area 55, operations group, a fully operational, fully outfitted, radiological utility office facility. Did I get that right?

[UNIDENTIFIED PERSON]  
Yeah, close enough.

[GIL DREXEL]  
[laughs] Building. And the idea here is just to kinda walk you through it. We are in construction, what Steve Overton's responsibility is, is to champion the completion of the project, which consists of the engineering deliverables to, to finalize all the design for the rad, the radiological facility. The construction activities will be complete around the March timeframe of next year. We'll be in start-up and commissioning of the systems related to the facility. And then we will basically go into beneficial occupancy, which means that we can actually move in. That's gonna happen around the June timeframe. That's our contract with our contractor.

[GIL DREXEL]  
Then, what Steve [Overton] gets to do, is the fun stuff, where we actually take that facility and we outfit it with lighting, furnishings, the equipment, um, the um, the architectural finishes. And between October of 2009 and October of 2010, we'll be operating the facility, what we call in "interim ops mode," so we can check out all the systems that the subcontractor has turned over to us. Steve [Overton] and his team gets to evaluate the efficiency of those systems. At that point we've got TA-55 folks working with us, with Steve's organization to make sure we deliver to the owner what they, what was sold. So that's that one-year window. Within that one year, and again, these are fiscal years, not calendar years.

[GIL DREXEL]  
Then we will go through a lab readiness assessment. And that lab readiness assessment basically challenges everything that happened from start all the way to this, this, point here [points to line on slide, "2011 CMRR RLUOB Radiological Laboratory Operations"]. And what that lab readiness assessment is, to prepare us for rad ops for the radiological facility.

[GIL DREXEL]  
Between 2010 and 2016, while Steve [Overton] is, and his team, is championing the turnover to operations activity, he is also getting prepared for construction on the nuclear facility. And that's the, the big prize. That's where we've got—and you'll see, based on the photos and the quantity charts that we have over here, you'll see the size and complexity of the facility. And that'll happen between 2010 and 2016. So, as you can see here, right in the space here [points to last line on slide], our organization, and we'll grow in size to accommodate the amount of work that Cathy Flavin will be producing out of the engineering organization, Steve Overton will be producing out of the construction and start-up



organization, and a person that's not here, Bob Grace [Robert E., Facility Operations Director, CMRR] and Tom Gallegos [Operations Support, Business Systems Integration], they are part of our operations team that will take the facility, the systems, and the equipment from Steve's [Overton's] organization that's been certified, verified by Cathy's [Flavin's] organization and take that from them. So that gives you kinda an idea what's been going on since 2002.

[Slide 12]

[GIL DREXEL]

Uh, Tom Whitaker's [Project Manager, Los Alamos Site Office, NNSA], direction, budget update. Right now, Herman Ledoux [Federal Project Direction, NNSA/LASO], who is the federal project director for our project and Rick Holmes [Division Leader, CMRR Division Office, LANL] are in Washington at headquarters working through these scenarios here. To fully fund so we can complete the rad lab, for this year, and then follow through equipment installation and rad ops, make sure that we have the appropriate procurement authorizations so that Cathy [Flavin] and their team can make sure that we can procure the things that we need for the long term so they show up at the site so Steve's [Overton's] folks can install it, and test it.

[GIL DREXEL]

Ah, the advanced nuclear facility design and safety, to minimize risk and prepare for final design initiation— they are meeting with the Defense Board [Defense Nuclear Facility Safety Board of the NNSA] or the Defense Board staff to confirm that we are on the right track. Right now, Cathy Flavin is our champion with the Defense Board. And those of you that are familiar with the Defense Board, um, they are like the NRC, the Nuclear Regulatory Commission. They are there to challenge the technical and safety basis of the facility. And Cathy [Flavin] is one of the best in the business to, to interact with the Defense Board. Uh, many successes on the projects she has been on.

[GIL DREXEL]

Maintain continuity for Nuclear Facility design teams. So this is a tough one, 'cause, as you folks know, based on funding profiles, through the life cycle of a project, they go up and they go down. What we are [doing] here is to make sure that the continuity for the nuclear facility design teams provide us the level of funding so we can complete those designs.

[GIL DREXEL]

Mission scope/program requirements, unchanged. Again, that's their responsibility to get with the headquarters folks and make sure the program personnel within the NNSA are consistent and understand where we are at on the projects, since we are in Los Alamos.

[GIL DREXEL]

This issue here, this is what happened in this past fiscal year. The budget authority was 74.5 million for our FY08 activities. And that was a, a, success on the NNSA's part because they had competing missions across the complex for that funding. And we were successful to obtain that for this year.

[GIL DREXEL]

Uh, again, what we are looking at, and you are going to hear some numbers float around, but 100 million is our planning baseline. In some avenues we are planning for 125 million; others for 90 million. But right now we are settling in that range, and, Everett [Trollinger, Project Director, Office of Los Alamos Site Operations, DOE] I don't know if you wanna, comment to that?

[EVERETT TROLLINGER, PROJECT DIRECTOR, OFFICE OF LOS ALAMOS SITE OPERATIONS, DOE]

[Inaudible answer without microphone.]

[GIL DREXEL]

Okay.

[More inaudible words]

[GIL DREXEL]

Yes sir?

[JAY COGHLAN]

So again, Jay Coghlan. Um, now, as most everybody knows, we'll probably have a continuing resolution.

[GIL DREXEL]

Yes.

[JAY COGHLAN]

That's virtually inevitable at this point. Um, and it's tough to say, ya'know, what Congress will do, but probably in all likelihood, you'd revert back to FY08 levels, that is to say that 74.5. So call it a rough 25 million short of the 100-million-dollar, uh, request. Do you then slow down construction of the light lab or do you slow down construction of the, er, design of the nuclear facility.

[GIL DREXEL]

Yeah, and the fundings that are, we've been working with, Everett Trollinger, federal project director that works in this arena, we've come up with those, continuing resolution, between October and, say, through February, and then fully funded after February. Continuing resolution from October to September. So the answer is, we've set up strategic priorities. We, we have to keep the nuclear facility design going. We need to finish the rad lab. So, as far as the rad lab goes, one scenario says we will complete the rad lab. We'll start it up, we'll take it through beneficial occupancy, and then we'll operate it for, at a minimum, for, until we get through the continuing resolution. The design piece of it, there'll be part of those dollars that we'll put towards the final design effort, so we can get through the technical independent project review, get Cathy [Flavin] her authorization to authorize the subcontractors, which they are Sargent-Lundy, Merrick, and others, to continue with that final design so we can hit Steve's [Overton's] targets for new facility construction start. And what they've done, is they've worked out package scenarios. Everybody would like to do 100% of the work based on the dollars that are available. What they've done is sequence them based on, if we get a continuing resolution, through 12 months, a continuing resolution through six months, a continuing resolution through three months, or we get fully funded. So we've set up those priorities. And the goal is to complete the radiological facility 'cause the customer is looking for that to be able to support the transition from the existing facility and continue with the nuclear facility design. Herman Ledoux and Rick Holmes are up there [Washington] right now to make sure if, if the House mark is zero and the Senate mark is 125, that it ends up somewhere in this range. [Points to "(House Mark \$0, Senate Mark \$125M)" on slide.] If we are under continuing resolution, which is usually what we expect, every DOE facility we've been at, we always talk about continuing resolution. So we have a, a plan to implement, and then we set up those priorities. We also have priorities so if we come in at 125, things that we can accelerate, things that we can purchase for the equipment installation and for the nuclear facility. So one of the things, if we are in a full continuing resolution through the year, is we would take the equipment installation work activities, and I'll go to Steve [Overton] and say, "Okay let's implement our scenario for starting that work, rather than October of 2009, more towards January of 2010, to allow the budget to be allocated to the nuclear facility piece and to complete the rad lab itself." Have I answered your question?

[JAY COGHLAN]

I'm not sure. [Drexel laughs] How about, give me a simple answer. Are you gonna prioritize the radiological lab or are you gonna priori—

[GIL DREXEL]

Let me repeat what I just said—

[JAY COGHLAN]

—or are you going to prioritize design of the nuclear facility?

[GIL DREXEL]

Yes. Based on a continuing resolution [others chuckling] this [points to something on slide] is within a continuing resolution funding profile. This [points to something else on slide] is within a continuing resolution funding profile. This [points to a third place on slide] is not. The equipment installation will be delayed to allow that funding profile to, to basically drop in. Everett [Trollinger], any?

[UNIDENTIFIED PERSONS]

[Inaudible voices off microphones]

[EVERETT TROLLINGER, PROJECT DIRECTOR, OFFICE OF LOS ALAMOS SITE OPERATIONS, DOE]

Everett Trollinger. I'm one of the federal project directors that, uh, end up getting stuck in the financial realm of, of dealing with things on projects here. Um, to clarify one thing, is that [to] fully fund the rad lab performance baseline, the 164 million dollars, that was achieved with funding we received in FY08. There was about a remainder of, roughly, I think, about 13 million dollars remaining to fully fund the performance baseline of the project. So, essentially what we are saying, I think, is that, if we're in a continuing resolution, that it's gonna look like we, a lot like we have been in the last several years, being held to kinda prior year's funding, is that we look at next year probably being not much unlike this year, with the addition of trying to get this new subsequent phase started on rad lab equipment installation. As Gil [Drexel] mentioned, uh, under a, ya'know, much-reduced funding profile, depending upon what that is, is potential for that to be slowed down, or paced differently than we kinda currently have planned. Um, what we're trying to do, I guess, in essence, is keep things balanced in some sense just to ah, ya' know, we are trying to minimize the impact [on] the overall project from the standpoint of losing continuity with a design firm that is doing a superb job for the nuclear facility design and the safety integration aspects of this project. So, um, I don't know what else to say there. That's about—

[JONI ARENDS, CONCERNED CITIZENS FOR NUCLEAR SAFETY, WITHOUT MICRPHONE]

So, does that mean that you are going to continue to [rest of question inaudible]

Can you just say, ya'know, [rest of question inaudible]

[GIL DREXEL]

I mean we're, I guess I could say we are not going to lose focus on that. We are trying, again, depending on budget, ahm, but we're trying to keep all things in motion just to reduce the overall impact to the project as a whole.

[JONI ARENDS]

[Inaudible question without microphone]

[UNIDENTIFIED PERSON, WITHOUT MICROPHONE]

[Inaudible words] repeat the question?

[A SECOND UNIDENTIFIED PERSON]

[Inaudible words]

[UNIDENTIFIED PERSON]

Joni's question.

[ANOTHER UNIDENTIFIED PERSON]

What was the question?

[ANOTHER UNIDENTIFIED PERSON]

We didn't hear it.

[JONI ARENDS, WITH MICROPHONE]

I was trying to get a "yes" or "no" answer to question about what the plan is. And basically I think I heard that they're gonna try to balance the radiological lab with continuing to work on the design of the nuclear facility within the budget constraints. Um, are you all done?

[GIL DREXEL]

Yes.

[JONI ARENDS]

Okay. So I have a question. If you can go back to the previous slide.

[Slide 11]

[JONI ARENDS]

Um, CCNS has continuing concerns, and so does Senator Bingaman, about the seismic issues. And, in our handout over there, we have an example of what the seismic was reported in the final SWEIS [Site-Wide Environmental Impact Statement] in 1999 compared to what was reported in the draft in 2006.

[GIL DREXEL]

Yes. We'll go through that once we complete this presentation. We have a table set up just to address that, that question.

[JONI ARENDS]

Well, I'd like to ask it in front of everybody, please. Um,—

[GIL DREXEL]

Where's our facilitator?

[CARL MOORE]

Here.

[GIL DREXEL]

We intend to answer that face-to-face at the table with the subject matter experts.

[JONI ARENDS]

Well, I'm—

[GIL DREXEL]

So I can complete the update on the progress of the, of the project.

[JONI ARENDS]

Well, I just asked you if you were done.

[GIL DREXEL]

No. No, I still got a couple more to go through. I apologize.

[JONI ARENDS]

Okay. So, uh, do you have written answers to our questions that we asked in March? As part of the interested parties.

[GIL DREXEL]

Somebody would like to answer that?

[UNIDENTIFIED PERSON]

[Inaudible answer from someone off microphone.]

[JONI ARENDS]

Well—

[UNIDENTIFIED PERSON]

[Continues inaudible answer from off microphone.]

[JONI ARENDS]

Okay. Well we put together, what? three, four pages worth of questions. Um,—

[UNIDENTIFIED PERSON]

[Inaudible words from someone off microphone.]

[JONI ARENDS]

—and we haven't gotten answers. That presentation at the March meeting did not include answers to our first two questions. And then we were told that we would get the answers in writing. And we still don't have those questions. It's important to know that this is a two-way street. Ya' know. We come up here. We spend our time and our resources as part of the settlement that was reached in good faith. And the fact that we don't have copies of the PowerPoint [slides] tonight; we don't have copies of this. I have to spend a lot of time writing the details because a lot of people were not able to come tonight. I have responsibilities to the other interested parties. And I'm frustrated. I'm frustrated that the Laboratory isn't living up to its commitment in terms of these meetings. I'm frustrated that I get an email saying that the format is changed, for this meeting, ya' know, a week beforehand. You know many of us are involved in the RCRA [Resource Conservation and Recovery Act] negotiations. We have a heavy load as well.

[UNIDENTIFIED PERSON]

[Inaudible answer from someone off microphone.]

[JONI ARENDS]

So my question is, "When will we get written responses to our questions, from our questions in March?"

[UNIDENTIFIED PERSON]

[Inaudible answer from someone off microphone.]

[ANOTHER UNIDENTIFIED PERSON]

[Inaudible comment]

[JONI ARENDS]

I'm not done, sir.

[More other inaudible comments from persons off microphone.]

[UNIDENTIFIED PERSON]  
Go ahead.

[JONI ARENDS]  
And I wanna have a larger discussion in front of everybody about the seismic issues. Senator Domeni—excuse me, Senator Bingaman's staff, Jonathon Epstein, met with Steve Fong [Project Manager, Los Alamos Site Office, DOE] for half an hour about the seismic issues. There are outstanding issues. I'm concerned that no seismic fasteners or ties were installed in the RLUOB as a precautionary approach. The contract with Austin Commercial is based on the 1995 seismic risks. And we know that there's a 50% increase in the probabilistic seismic hazard, at the Laboratory, including under this building. So, how are you all dealing with it?

[GIL DREXEL]  
Yes. So we have, we have answers for you. If you, if you'll allow me to finish, then we can get into the tables right quick. We can do that.

[JONI ARENDS]  
I would like the answers in front of everybody.

[CARL MOORE]  
Well, there's also the comment period that there will be at the end. And that would be the most appropriate time to—

[JONI ARENDS]  
—it's not—

[CARL MOORE]  
—to raise that.

[JONI ARENDS]  
Excuse me, you are new to this process—

[CARL MOORE]  
True. True.

[JONI ARENDS]  
—new to this process. [Begins on microphone] You are new to this process.

[CARL MOORE]  
Yes.

[JONI ARENDS]  
—and I appreciate your being here. But this is a two-way street. We asked specific questions. We're not getting answered. We are in fact getting stone-walled on answers to our questions.

[UNIDENTIFIED PERSON]  
[Inaudible, off microphone]

[TOM WHITAKER, PROJECT MANAGER, LOS ALAMOS SITE OFFICE, NNSA, DOE]

I'm Tom Whitaker with NNSA. Uh, so Joni, I think of the questions that you had, we'll find out what the status of those are. We are here to share information. That's the purpose of these meetings. I think we've been, we've spent a lot of effort, a lot of time, put a lot of resources together to make sure that you get the information you need. And the approach for tonight's meeting is just for that specific reason. So you can ask the actual SMEs [subject matter experts] the questions that have the answers. You start asking folks like myself and Gil [Drexel], we know things at a higher level; they have, they have the detail and the knowledge and they are the ones that you can pick their brains on a particular issue. So that's why we tried this format. This is going into the third year of these meetings. So we tried to change it around. And people had a lot of questions. We didn't have all the answers. We brought the SMEs here so you could get those questions. And the format that we decided was to try this out. We'll take your comments and feedback and go from there. But for this meeting, the format that we are following is with our SMEs at our tables. So I, that's what we have in place and that's the plan. So we'll take those comments that you have and we'll go from there. But for this meeting, that's kinda where we're at, at this point. Thanks.

[UNIDENTIFIED PERSON]

Thanks a lot.

[GIL DREXEL]

Next slide.

[Slide 13]

[GIL DREXEL]

Integrated safety into design and, uh, this is something we were, we were just describing. The, the issues related to nuclear safety fi—, uh safety design and what was codified into law, are primary design considerations, or safety structures, systems, and components. The rad lab as well as the nuclear facility.

[GIL DREXEL]

Some of the lessons learned at, across the DOE complex that we picked up and put into the design. And the Defense Nuclear Facility Safety Board, the DNFSB, ah, that has been engaged with us. Just recently this year, were Cathy Flavin, Brad Gallimore [Safety & Authorization Basis Group, CMRR Division Office], and their team interacted with our design agencies to basically cover areas of nuclear safety basis review. Safety class fire protection system review. These are some of the things that, uh, are one-of-a-kind for our nuclear facility. How we determine the safety systems. We've had that workshop. Uh, the participation of a, a group of subject matter experts across the complex to discuss fire safety at our nuclear facility. And, voila! seismic/structural workshop. This workshop is scheduled for, I believe, October, November, Cathy [Flavin]?

[CATHY FLAVIN]

[Inaudible reply off microphone]

[GIL DREXEL]

Okay. And what they are gonna discuss is all these issues here, to check for our defense-in-depth and our implementation of those safety features.

[JONI ARENDS, WITHOUT MICROPHONE]

[Inaudible words]

[UNIDENTIFIED PERSON, WITHOUT MICROPHONE]

[Inaudible words]

[JONI ARENDS, WITHOUT MICROPHONE]  
Can we find out who that is?

[UNIDENTIFIED PERSON]  
Sure.

[JONI ARENDS, WITHOUT MICROPHONE]  
Thank you.

[Slide 14]

[GIL DREXEL]

And, before we go any further. We've got five tables set up. I'm sure some of you will be very interested in interfacing with our geotechnical, structural, seismic, and engineering design table. We've got Tom Whitaker, Mike Salmon [Michael W., Team Leader, Probabilistic Structural Mechanics Team, Nuclear Design and Analysis Group, Decision Applications Division], and Cathy Flavin at that table. Those are the folks that are making the decisions relative to these subject areas. Those are the people that are here. For project information and our website, which will capture feedback from the public meeting. We've set up a website of, uh, questions and answers, that the intent is, is to be able to provide that publicly on what those answers to your questions are. We got some feedback that there wasn't timely feedback, or none at all. So, the recommendation is, let's put it on our web. So you can see what the answer is, and if you have an issue with it, you can respond through the web.

[GIL DREXEL]

Environmental management. Tony Ladino [Security and Environmental Compliance Lead, CMRR Project] and Nicole Seguin [Task Order Contractor, CMRR], uh, will provide you the subject matter expertise on our environmental issues. They are set up right here. Uh, just to mention to you, Adam Orr [CMRR Division Office] is with me on the project information website. I can't drive that thing. So he's our expert to be able to, surf—I'm a Hawaiian guy, but he can surf through that website a lot faster than I can.

[GIL DREXEL]

Uh, our Table Four, which has most of the posters, and the idea here was to be as transparent as we can be on progress. And that's our construction. Steve Overton. Our safety, Joe Honea [CMRR Safety]. And our quality assurance, Taunia Wilde [Quality Group Leader, CMRR Project]. And there was some feedback from the prior public meeting on questions related, as you, as you mentioned Joni [Arends], the Austin Commercial, what we're doing on installation. Their task is to provide you the rest of the story. What is actually happening. Our methods of inspecting, not only the quality and maintaining safety at the project, building in accordance with design, but to provide you evidence of how we perform those activities. And that's at that table.

[GIL DREXEL]

And Table Five is open table for settlement agreement parties.

[GIL DREXEL]

So, what I'd like to, ahm, basically promote to you is, participate with those subject matter experts. I do. I work with them every day. I interface with them everyday. Um, those folks can answer your questions. And if they cannot answer your questions, they will make note of it, again our website and some of the products that we will provide to you, as far as copies of the slide presentation. If you want copies of the information at the table, we can get that to you. Okay? [pause]



[UNIDENTIFIED PERSON]  
[Inaudible words]

[GIL DREXEL]  
Yes?

[UNIDENTIFIED PERSON]  
[Handing microphone to Joni Arends]  
Here. Joni.

[JONI ARENDS]  
Thank you. I would like to suggest one correction to your presentation. And that is, you compared the NRC, the Nuclear Regulatory Commission, to the DNSB [Defense Nuclear Safety Board of the NNSA].

[GIL DREXEL]  
The Defense Board, yes.

[JONI ARENDS]  
Yes, the Defense Board. The Defense Board [Defense Nuclear Facility Safety Board of the DOE] does not have any regulatory power whatsoever.

[GIL DREXEL]  
I agree with you there. But I compared their styles. Their styles are very similar. They are there to challenge the requirements and how we are implementing them. And I've worked with them for about 28 years, so, they are very consistent. But you are absolutely right, the Nuclear Regulatory Commission has regulatory requi— um, authorization. The Defense Board is an overseer of NNSA and others. Um, I've worked with them at, uh, again, Savannah River, Oak Ridge, Y-12, K-25, uh, but they're, they're tough. They're tough. They challenge the basis of design, challenge the basis of construction, how we're gonna start those facilities up, how we're gonna operate 'em. So, that was my comparison to the two.

[GIL DREXEL]  
Thank you.

[JONI ARENDS, WITHOUT MICROPHONE]  
[Inaudible] ... need to be clear, who has regulatory power.

[GIL DREXEL]  
Okay. Thank you. So, with that, I'd like to invite you to, uh, participate in our table sessions.

[JONI ARENDS]  
[Inaudible]

[GIL DREXEL]  
And I'd like to thank you for coming to these meetings. Thank you.

[The meeting broke into informal information sessions with the subject matter experts.]

[The meeting resumed at 8:25 p.m.]

[CARL MOORE]

First thing is that, um, here's my name, phone number, email. [Points to flip chart where information is written.] If anybody wants to communicate with me, those are the coordinates. Um, second thing is that, um, the decision was made, based on previous meetings, to have these as the topics. Whether these are the right topics, or additional topics, is something that at least one person is contributing ideas to, right there. [Points to Joni writing on flip chart.] Um, I'd like to also hear from anybody else who has thoughts about additional topics that future meetings ought to include for consideration. They may be imbedded there. But let's not assume that. Any thoughts of additional topics that six months from now that you would really, really like to see as, at one of the tables, or somebody speaking to.

[UNIDENTIFIED PERSON]  
[Inaudible, off microphone]

[CARL MOORE]  
He asked.

[UNIDENTIFIED PERSON]  
[inaudible]

[Another UNIDENTIFIED PERSON]  
[Inaudible, off microphone]

[CARL MOORE]  
Well, and—

[UNIDENTIFIED PERSON]  
[Inaudible, off microphone]

[CARL MOORE]  
—yes.

[UNIDENTIFIED PERSON]  
[Inaudible, off microphone]

[CARL MOORE]  
Yes. Say your name, too.

[ROGER SNODGRASS, LOS ALAMOS MONITOR]  
Roger Snodgrass, Los Alamos Monitor. I had suggested that there be, for example, it would be useful to hear from Los Alamos [National Laboratory] and NNSA a discussion of what they have actually heard from DNSFB. How they take that. How they understand it. And, then, what they are going to do about it, essentially.

[UNIDENTIFIED PERSON]  
[Inaudible, off microphone]

[ANOTHER UNIDENTIFIED PERSON]  
[Inaudible, off microphone]

[ROGER SNODGRASS]  
DNFSB.

[UNIDENTIFIED PERSON]  
[Inaudible, off microphone]

[ROGER SNODGRASS]  
Right. What are their concerns?

[UNIDENTIFIED PERSON]  
Regarding [inaudible words]?

[UNIDENTIFIED PERSON]  
Yeah. Thank you.

[Brief gap as audiotape is being turned over.]

[ROGER SNODGRASS]  
— You know, they're great, they're tough. We passed with flying colors. You know, to me, that is, ya'know, that isn't quite enough.

[UNIDENTIFIED PERSON]  
[Inaudible]

[CARL MOORE]  
Or at least learn those colors.

[ROGER SNODGRASS]  
Yeah.

[CARL MOORE]  
Okay. Any other topics that oughta be included at the next meeting? Yes sir?

[JAY COGHLAN]  
I'm Jay Coghlan. Another suggested topic is, by that time, we should have a pretty good idea where it's going, budget-wise, with the continuing resolution. So just an update on the budget and forecast and what it means.

[CARL MOORE]  
Any others? Um, the other opportunity is that, if anybody wants to read anything into the official record, they can do that by, they have that opportunity to do that? By reading it in right here, um, into this, uh? Um, I'm sorry. [pause] [Inaudible words] Anything else? [pause] Thank you all for coming. Again, if you have specific questions or concerns, I hope you wrote down my phone number. I'd be happy to hear it, and I know others would as well. Um, good day.

[UNIDENTIFIED PERSON]  
Thank you.

[Brief, light applause]

I hereby certify that the foregoing is a true and correct transcript of the audiotape of the public meeting of the Chemistry and Metallurgy Research Facility Replacement Project on September 16, 2008, in the Fuller Lodge, Los Alamos, New Mexico.

/s/ Morrison Bennett  
October 3, 2008

## *V. Presentation Slides*

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# Chemistry and Metallurgy Research Facility Replacement (CMRR) Project

## Welcome

## CMRR Project Update

Los Alamos, New Mexico  
September 16, 2008

**Carl Moore, Meeting Facilitator**

# Agenda

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- |      |   |  |
|------|---|--|
| 6:30 | <p>Table Topics &amp; Posters – Discussion, Questions, &amp; Comments</p> <ul style="list-style-type: none"> <li>- Geotechnical, Structural, Seismic, &amp; Engineering</li> <li>- Project Information &amp; Web Site</li> <li>- Environment</li> <li>- Construction, Safety, &amp; Quality</li> <li>- Open Table for Settlement Agreement Parties</li> </ul> |  |
| 6:45 | <p>Welcome<br/>Ground Rules<br/>Background and Purpose<br/>Briefing on Public Comment Provisions<br/>Introductions</p>  | <i>Carl Moore</i>                        |
| 7:00 | <p>CMRR Project Overview &amp; Update</p>   | <i>Mark Dinehart,<br/>Gilbert Drexel</i> |
| 7:30 | <p>Return to Tables Topics &amp; Posters</p> <ul style="list-style-type: none"> <li>- Discussion, Questions, Written Comments, Recorded Comments</li> </ul>   | <i>Carl Moore</i>                        |
| 8:25 | <p>Closure, Thank You and Adjourn</p>   | <i>Carl Moore</i>                        |

## Background and Purpose

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- Settlement allowed for air permitting to be segmented to match phased project-development and for public involvement
- Parties include
  - New Mexico Environment Department
  - Department of Energy
  - University of California
  - Concerned Citizens for Nuclear Safety
  - Nuclear Watch of New Mexico
  - Peace Action New Mexico
  - Loretto Community
  - TEWA Women United
  - Embudo Valley Environmental Monitoring Group
  - New Mexico Environmental Law Center
- Meeting is held every six months to update the public on CMRR construction progress



## From Last Meeting

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- September 2008 meeting agenda suggestions
  - LANL seismic study and report information
  - Written responses to Settlement Party written questions about the project
  - Air permitting update
  - More time for meeting attendee's questions, answers, and information exchange

## Ground Rules

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- Listen respectfully
- Share the conversation time with other participants
- Turn cell phones off or place on mute
- No personal attacks
- We have a station for submitting recorded comments. If you choose to submit recorded comments, please say your name first, then speak slowly and clearly
- We have forms for submitting written comments. If you choose to submit written comments, please write legibly
- Topic requests for future meetings can be left on the flip chart at any time

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# Chemistry and Metallurgy Research Facility Replacement (CMRR) Project

## CMRR Project Update

Los Alamos, New Mexico  
September 16, 2008

*Presented by*  
**Gil Drexel, LANL  
CMRR Project Leader  
&  
Mark Dinehart, LANL  
Integrated Nuclear Planning**

Los Alamos  
NATIONAL LABORATORY  
1944

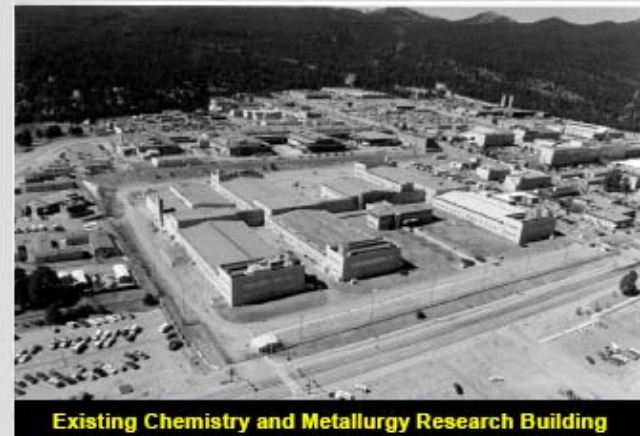
NNSA  
National Nuclear Security Administration

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## CMRR Mission Need Statement

**“The CMR Replacement (CMRR) Project seeks to relocate and consolidate mission critical CMR capabilities at LANL to ensure continuous support of NNSA stockpile stewardship and management strategic objectives; these capabilities are necessary to support the current and directed stockpile work and campaign activities at LANL beyond 2010.”**



## Analytical Chemistry & Material Characterization (AC/MC) Capabilities

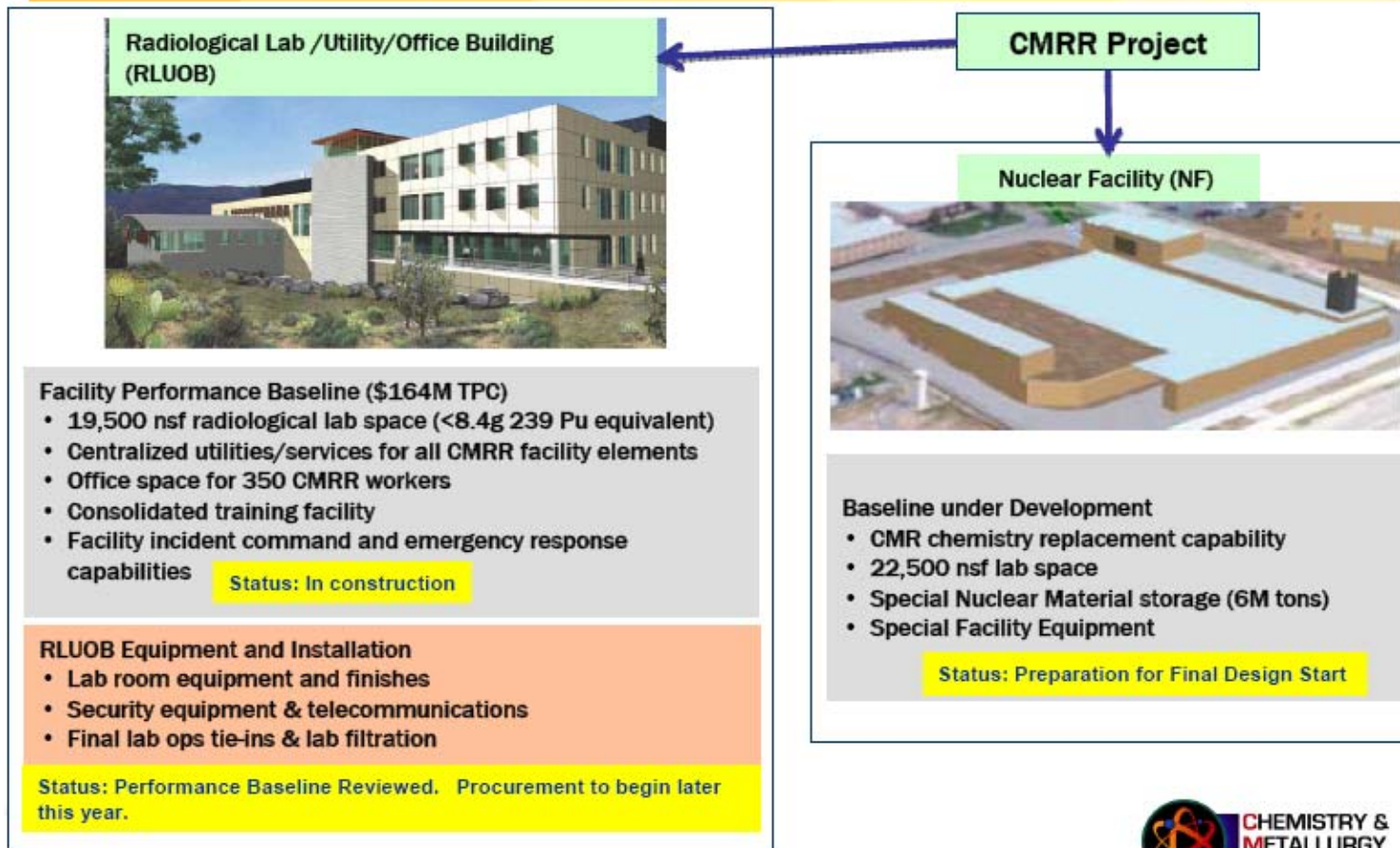
### CMR's AC/MC capabilities support core LANL Programs

- Nuclear materials handling, processing, and fabrication
- Stockpile management
- Materials and manufacturing technologies
- Nonproliferation programs
- Waste management activities – environmental programs
- Materials disposition

### CMRR will replace these capabilities and...

- Provide physical means for accommodating continuation of the CMR building functional and mission-critical capabilities in a safe, secure, and environmentally sound manner
- Seek opportunities to modernize CMR operations co-located with similar existing operations with reduced footprint
- Enhance security posture and reduced security costs

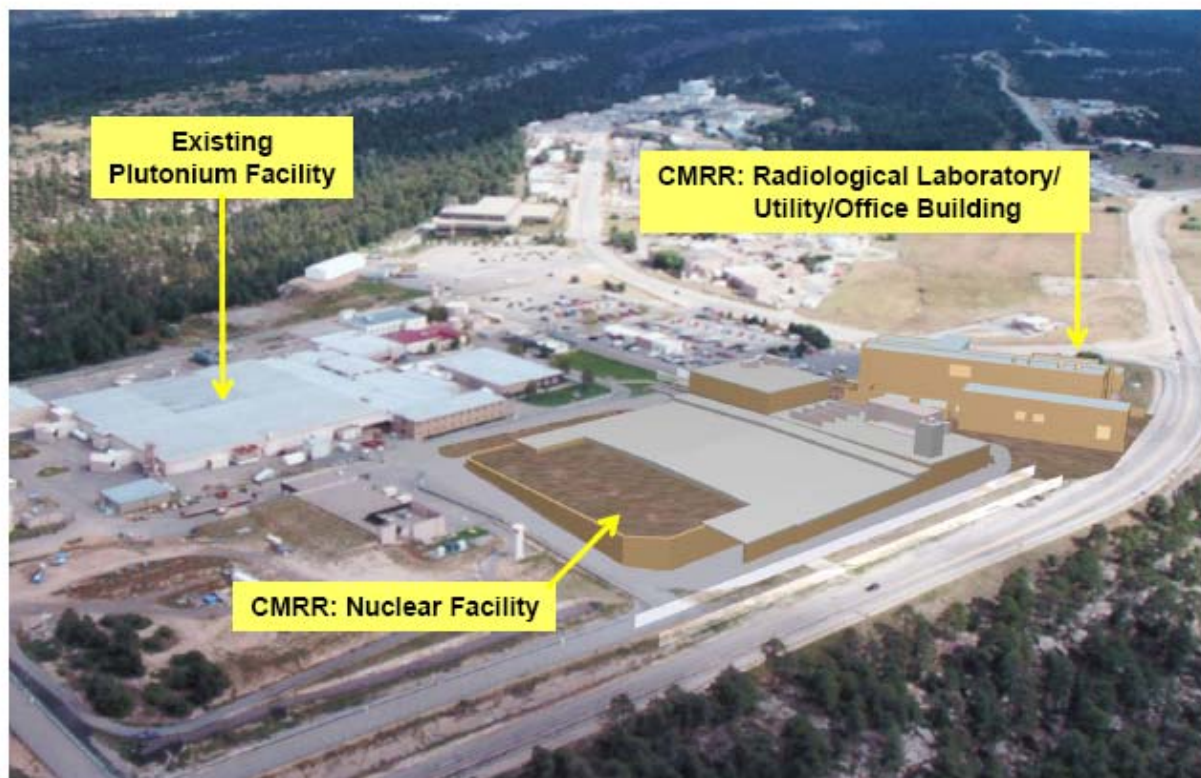
# CMRR – Project Scope



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## CMRR at Technical Area-55



# High Level Schedule

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## Complete

- 2002 CMRR Critical Decision (CD) - 0 (*Approve Mission Need*)
- 2004 CMRR EIS Record of Decision signed
- 2005 CMRR CD - 1 (*Approve Alternative Selection and Cost Range*)
- 2005 CMRR RLUOB CD - 2/3 (*Approve Performance Baseline/Construction*)
- 2007 CMRR RLUOB Equipment, Final Design Authorization

## This Year

- 2008 CMRR RLUOB Equipment/Installation CD-2/3  
(*Approve Performance Baseline/Procurement-Installation*)
- 2008 CMRR Nuclear Facility Safety Basis and Design Integration and Technical Reviews

## Future Years

- 2009 CMRR Nuclear Facility Final Design Contract Authorization
- 2011 CMRR RLUOB Radiological Laboratory Operations
- 2010~2016 CMRR Nuclear Facility Construction



## NNSA Direction & Budget Update

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- NNSA Direction
  - Fully fund RLUOB performance baseline
  - Prepare RLUOB equipment and installation work activities for procurement/installation approval
  - Advance Nuclear Facility design/safety to minimize risk and prepare for final design initiation
  - Maintain continuity for Nuclear Facility design teams
  - Mission scope/program requirements unchanged
- Allocation of Fiscal Year (FY)08 budget authority
  - \$74.5M received for FY08 activities
- Future Planned Funding
  - \$100M reflected in FY09 budget (House Mark \$0, Senate Mark \$125M)
  - FY10 - FY13 funding profile is under evaluation and development

## Integration of Safety into Design

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- Nuclear safety design
  - Codified into law
  - Primary design consideration
  - Safety structures, systems, and components (SSCs) are developed and rigorously assessed
- Lessons learned from all nuclear projects within DOE
- Defense Nuclear Facility Safety Board oversight/engagement 2008 major interactions include
  - March 08 – Nuclear safety basis review
  - July 08 – Safety class fire protection system review
  - July 08 – Safety systems determination workshop
  - Summer 08 – Participation of DOE/DNFSB fire protection criteria workshops and CMRR safety class fire suppression system case study endorsed
  - Fall 08 – Seismic/Structural workshop
- Implementation of “defense-in-depth” safety concept

## Table Topics

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**Table 1 – Geotechnical, Structural, Seismic & Engineering  
(Tom Whitacre, Mike Salmon, Cathy Flavin)**

**Table 2 – Project Information and Website  
(Gil Drexel, Adam Orr)**

**Table 3 – Environmental Management  
(Tony Ladino, Nicole Seguin)**

**Table 4 – Construction, Safety & Quality Assurance  
(Steve Overton, Taunia Wilde, Joe Honea)**

**Table 5 – Open Table for Settlement Agreement Parties**

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## CMRR Project

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Thank you for attending.



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## ***VI. Round Table Notes***

# PUBLIC MEETING

## Chemistry and Metallurgy Research Facility and Replacement (CMRR) Project

September 16, 2008

### ROUND TABLE REQUESTS, QUESTIONS, & ANSWERS

#### Table 1 — Geotechnical, Structural, Seismic & Engineering (Tom Whitacre, Mike Salmon, Cathy Flavin)

1. Q: Don't we need to better constrain the dacite properties used in the Update of LANL Probabalistic Seismic Hazard Assessment (UPSHA)?  
A: Sure.
2. Q: Why isn't the Lab implementing the recommendations in Chapter 10 of the UPSHA? \*  
A: We are looking at initiating new studies.

#### Table 2 — Project Information and Website (Gil Drexel, Adam Orr)

1. Request: State gross square feet as well as laboratory square feet.
2. Request: Link to relevant sections on CMRR nuclear facility in the Complex Transformation SPEIS.
3. Request: Link to "special nuclear materials consolidation business case" that is an official reference document for the Complex Transformation SPEIS.

\* Section Ten "Recommendations for Future Studies" submitted to the record – see next page.

Based on the studies completed to date, the following are recommendations for future investigations. The results of such studies will aid in refining specific seismic source and site parameters, which have been incorporated into the PSHA, and reduce their associated uncertainties.

- Recalculate the hazard using the NGA ground motion attenuation relationships. Four relationships are now available for use and they display significant differences with the earlier generation of relationships, i.e., the ones used in the current study (Section 6.1). It would be prudent to evaluate the impact of these new relationships on the LANL hazard after they have had time to be fully vetted.
- Conduct additional detailed/high-precision mapping and displacement measurements along the SCC segment of the PFS, similar to what has been done on the PAF segment of the PFS. The purpose of this would be threefold: (1) better define fault trace geometry for the SCC and verify the gap between the PAF and SCC; (2) better define long-term displacements and slip rates for the SCC; and (3) identify potential paleoseismic trenching sites.
- Conduct paleoseismic trenching studies of the SCC to determine the timing and size of prehistoric surface-faulting earthquakes. This will help better define rupture models and scenarios for the PFS. It may also help better determine maximum magnitudes and recurrence intervals for rupture scenarios.
- Reevaluate the entire dataset for the RGR fault slip rate analysis using only data for complete seismic cycles and more complete documentation of long-term data (both displacements and applicable time periods). This more robust analysis will likely reduce slip rate uncertainties and result in a more symmetric RGR slip rate distribution.
- Conduct additional studies to better constrain kappa. Kappa is a key parameter in assessing the hazard at LANL (Section 6.2). Focused efforts should be made to evaluate kappa using data from the LANL seismographic network. Improvements in the network may be necessary to improve data quality.
- Conduct  $V_s$  measurements of dacite. There is no reliable  $V_s$  data for the dacite (Section 4.2.3) and thus velocity data would confirm the value used in this study. Measuring the velocity of the dacite beneath the laboratory requires deep boreholes and so although not ideal, shallow velocity surveys where the rock outcrops is probably the only economical alternative.

## *VII. Comments, Requests, & Suggestions*



## **PUBLIC MEETING**

**Chemistry and Metallurgy Research Facility and Replacement (CMRR) Project**

**September 16, 2008**

### **GENERAL REQUESTS AND SUGGESTIONS**

1. Request: Written responses to the March 2008 questions to Permittees from Interested Parties.
2. Request: Send link to CMRR website to Interested Parties.
3. Request: A copy of Mike Salmon's seismic presentation to Chris Williams, Los Alamos County Engineer, about comparison of the 20046 IBC standards to the seismic design at LANL.

## **PUBLIC MEETING**

**Chemistry and Metallurgy Research Facility and Replacement (CMRR) Project**

**September 16, 2008**

### **REQUESTS AND SUGGESTIONS FOR TOPICS TO BE COVERED AT FUTURE MEETINGS**

Meeting Participants wrote the following requests for topics to be covered at future meetings on the flip chart during and following the September 16, 2008 meeting:

1. Discussion of what the Defense Nuclear Facility Safety Board (DNFSB) is saying; what are their concerns about the CMRR project?
2. Budget update and what it means.
3. Agenda preparation and presentation by Interested Parties.
4. Seismic Presentation by DNFSB at LANL for the RULOB [Radiological Laboratory, Utility, and Office Building] and NF [the Nuclear Facility].
5. Written responses to March '08 questions to questions from Interested Parties – if have not been answered by Permittees.
6. Handouts of presentations available to the public at the meeting.
7. Please send the link to the CMRR website to the Interested Parties.
8. Update about 6 seismic recommendations per PSHA [Probabilistic Seismic Hazard Assessment], Section 10 – e.g.,
  - (a) investigation of kappa
  - (b)  $V_S$  measurements of dacite
  - (b) fault slip
  - (c) trenching studies
  - (d) mapping
  - (f) hazard using NGA ground motion attenuation relationships
9. Update on air permit application for NF [the Nuclear Facility].

## ***VIII. Sign-In Sheet***



Tuesday, September 16, 2008  
 CMRR Public Meeting @ Fuller Lodge, Los Alamos - SIGN IN SHEET

NAME (please print)	ADDRESS	TELEPHONE NUMBER	E-MAIL
MARK DIMENSIJA		667-2335	
ESWEN GROOVER		706-726-5023	
TAMARA WILK		505-672-0404	
Everett Trullinger		667-0281	
MORRISON BENNETT	P.O. BOX 160	667-3916	
BILL BANICENSUP	Los Alamos 87544 NM	665-0823	
TORJI GEORGE		667-2211	
NICOLE SEGUN		665-5183	
Paul Wardlaw		665-5557	
JON AREND		986-1973	



Tuesday, September 16, 2008  
 CMRR Public Meeting @ Fuller Lodge, Los Alamos - SIGN IN SHEET

NAME (please print)	ADDRESS	TELEPHONE NUMBER	E-MAIL
Scott Kouac	NUNUM		SCOTT@WUKEWATCH.ORG
MYRON KOOP	505 OPPENHEIMER #108		
Matthew Vitek			MatthewV@LANL.GOV
PAUL TERP	5 STOP LN		
SOUL TERP	"		sdterp@lanl.gov
Gil Butler	522 Canyon Road. Los Alamos		
YETHOTN			
Ryning Wheeler	PO Box 30 87544 Los Alamos 87555	955 662 8050	ryning.wheeler@lanl.gov
DAVID FUEHME	LAM TUN	665 3750	davef@lanl.gov