



**CMRR Public Meeting, March 25, 2008**

**Volume 5**

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



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# *I. Agenda*

# Agenda

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**CMRR Public Meeting**  
***Tuesday, March 25<sup>th</sup>, 2008***  
**Fuller Lodge, Los Alamos, NM**  
**6:30 – 8:30**

6:30 – 6:45	Welcome Ground rules Briefing on Public Comment Provisions Background and Purpose Introductions	Rosemary Romero
6:45 – 7:00	CMRR Project Overview & Update	Rick Holmes
7:00 – 7:30	CMRR RLUOB Project & Environmental Update	Tom Whitacre
7:30 – 8:15	Presentation Questions & Answers Settlement Party Pre-Submitted Questions Additional Comments & Questions	Rosemary Romero
8:15 – 8:25	Requests for topics for next meeting	Rosemary Romero
8:30	Adjourn	Rick Holmes

## ***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 \_\_\_\_\_

\_\_\_\_\_

Tewa Women United

Date \_\_\_\_\_

\_\_\_\_\_

Embudo Valley Environmental Monitoring Group

Date \_\_\_\_\_

\_\_\_\_\_

New Mexico Environmental Law Center

Date \_\_\_\_\_

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

Date \_\_\_\_\_

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

Date \_\_\_\_\_

*Carolyn Mangery*  
~~LARK Assoc. Inc.~~ University of California

Date *September 15, 2005*

\_\_\_\_\_  
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 \_\_\_\_\_

  
\_\_\_\_\_  
Assistant Manager for Environmental Stewardship Date 9/14/05  
Los Alamos Site Office  
U.S. Department of Energy

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

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

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

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

FROM : PEACE ACTION NM

FAX NO. :

Sep. 15 2005 09:10AM P1

Seq-15-06 09:31A NMELC

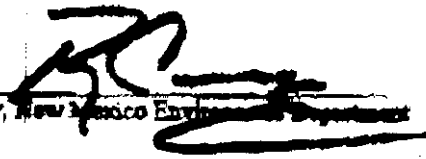
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PAGE 01

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


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

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

 Date 9.15.05  
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  
Loreto Community

NMED/DOE/Univ. of California/INTERESTED PARTIES  
Agreement on Air Quality Permit No. 2198-N



*Kathleen De Smedt*  
Tewa Women United

Date 9/15/05

Embudo Valley Environmental Monitoring Group

Date \_\_\_\_\_

*Douglas Winkler*  
New Mexico Environmental Law Center

Date 9/15/05

Tewa Women United

*Slofowski*

Embudo Valley Environmental Monitoring Group

Date \_\_\_\_\_

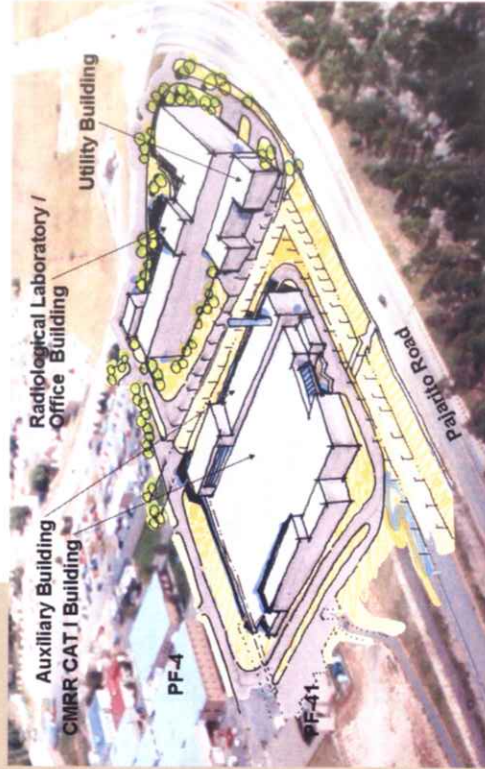
Date *September 15, 2005*

New Mexico Environmental Law Center

Date \_\_\_\_\_

# Chemistry and Metallurgy Research Replacement (CMRR)

Los Alamos National Laboratory



## CMRR and Nuclear Facility Consolidation

As part of the Department of Energy's nuclear facility consolidation, LANL and NNSA are consolidating LANL's nuclear operations into fewer facilities and security areas. In April 2000, LANL had 1.8 million sq ft of nuclear facility space. Nuclear facility consolidation will reduce LANL's nuclear facility gross square footage by more than half the April 2000 footprint.

As part of nuclear facility consolidation, the CMRR Project will upgrade existing CMRR facilities, reduce operating and security costs, improve recruitment by providing state-of-the-art infrastructure and workspace, and ensure compliance with current environmental, safety, and health requirements.

### More Information

Dr. Timothy O. Nelson  
CMRR Project Director  
Phone: 505-667-2326  
Email: [ton@lanl.gov](mailto:ton@lanl.gov)

CMRR/MS G751  
Los Alamos  
National Laboratory  
Los Alamos, NM 87545



# CMRR Project

## CMRR Project: An Overview

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

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

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

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

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

**Phase C:**  
Nuclear Laboratory Facility

**Phase B:**  
Special facilities equipment, including long-lead equipment and instrumentation

**Phase A:**  
Radiological Laboratory Utility Office Building (RLUOB)

## Phase A: Radiological Laboratory Utility Office Building

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

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

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



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

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

## Phases B and C

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

To: Lorrie Bonds-Lopez  
From: Interested Parties to the September 14, 2005 CMRR Settlement Agreement  
Date: February 25, 2008  
Re: Questions from Interested Parties for March 25, 2008 CMRR Meeting

Thank you for the opportunity to provide the questions of the Interested Parties to the September 14, 2005 Settlement Agreement regarding the New Source Review Air Quality Permit for the Chemistry and Metallurgy Research Replacement Building (CMRR) to you prior to the March 25, 2008 CMRR public meeting to ensure that our concerns are addressed at the meeting. We found this process worked well at the September 26, 2007 meeting. It was definitely one of the better and most informative meetings. Thank you for your cooperation.

In order to simplify the process, we request that the CD of the meeting be made available to us within thirty (30) days of the public meeting so that we may begin to formulate our questions for the September 2008 meeting. Thank you in advance for your efforts to ensure the availability of the materials.

### **1. Current funding status for CMRR**

The Reliable Replacement Warhead (RRW) program is possibly dead. There is a bi-partisan nuclear weapons policy commission report due this December 2008. There is a new Nuclear Posture Review due during the next Administration. These will certainly change future configuration of the weapons complex and the need for plutonium pits.

- a. Why start construction of the CMRR-NF until these items are settled?
- b. If the next administration or Congress decided that the U.S. would produce no new nuclear bombs, what would be the purpose of the CMRR and what size of facility would be needed?

The Congressional Budget Request (CBR) for FY09 is \$100.2 million for CMRR. The breakout is given as \$68.2 million for final design and \$32 million for construction. (CBR FY09 Vol 1, P. 302)

- c. What is the breakout of the FY09 request between the Phases A, B, & C for both design and construction?
- d. Costs for CMRR have risen from \$600M in 2004 to “over \$2,000,000,000” now. What is the justification?

The TEC [Total Estimated Cost?] for CMRR has a placeholder going to 2017. (CBR FY09 Vol 1, P. 303)

- e. What is the current earliest date estimated to complete CMRR NF?

Other Project Costs for FY09 are requested at \$8 million. (CBR FY09 Vol 1, P. 303)

f. What specifically are these costs? Please provide a breakdown.

Phase C, CMRR Nuclear Facility (NF): Construction of a facility located behind perimeter security protective systems of approximately 22,500 net square feet to house Hazard Category II nuclear laboratory space for analytical chemistry/material characterization, and actinide research & development operations. Additionally, this facility will include SNM Storage and a large vessel handling capability. (CBR FY09 Vol 1, P. 301)

g. We believe that CMRR-NF was closer to 200,000 square feet. Is this a typo? What is the total square footage of CMRR-NF?

h. Is CMRR still being designed to handle large vessels? Does its mission still include clean out of large vessels? If so, have there been changes? If not, what changes have been made?

i. Is any work with still planned for Pu-238? Alternatively, is DOE still considering Pu-238 consolidation at INL?)

## **2. Seismic Concerns**

a. Is the final seismic report still due this March? Please summarize the findings.

b. How are DOE and LANL addressing the six recommendations found in the “Update of the Probabilistic Seismic Hazard Analysis and Development of Seismic Design Ground Motions at the LANL,” p. 10-1, May 25, 2007. Please present the latest information for each of the recommendations.

## **3. National Environmental Policy Act (NEPA)**

The Complex Transformation SPEIS (C-Trans SPEIS) has been released. Los Alamos has been selected as the National Nuclear Security Administration’s preferred alternative site for plutonium pit manufacturing.

a. How does the Complex Transformation SPEIS fit into the CMRR waste generation and disposal pathway numbers?

b. Please compare the waste generation and disposal numbers presented in the CMRR FEIS, the draft LANL SWEIS and the C-Trans SPEIS.

The Complex Transformation Data Call presumes, as a conditions for the future, that CMRR Nuclear Facility becomes operational in ~2014. (*Data Call*, Complex Transformation Reference documents, P. 94)

c. Is 2014 a realistic date? What types of slippage could occur?

5.3 Reduced Operation Alternative: Consolidation of LLNL materials or scope in 2014 might or might not occur. Otherwise, operations at LANL would continue as described in the SSM PEIS, as supplemented by the SWEIS for pit production and the EIS for CMRR. The facilities would operate until they became obsolete. For PF-4, the lifetime of the

facility would likely extend to ~2030; for CMRR, for two to three decades past this date. (Complex Transformation SPEIS, P. 100)

- d. Is consolidation of LLNL materials to LANL included in the CMRR EIS?
- e. Will the CMRR-NF store these LLNL materials?
- f. What is the volume of the LLNL materials?
- g. What is the life expectancy of CMRR-NF?

Section 6, Requirements for PEIS Alternatives, No Action Alternative, of Complex Transformation SPEIS states that only existing facilities will be used to meet programmatic requirements. The principal processing facilities would be PF-4, Building 332, and CMRR.

h. Any idea why CMRR is considered an existing facility here? Please specify the CMRR phases that are applicable to the above statement.

The amount of material estimated to be on the floor of the CMRR Nuclear Facility (for safety calculations) is approximately 600 kg Pu. (*Draft Complex Transformation SPEIS* Chapter 3, P. 193)

- i. Is 600 kg Pu the figure being used in the design of CMRR-NF?

### **3.6.1.1 Capability-Based Alternative for LANL**

• CMRR — NNSA is continuing design of the CMRR nuclear facility, but has not begun construction. NNSA will decide whether to construct the CMRR nuclear facility after completion of this SPEIS. Should another site be selected for pit production, the full CMRR could still be constructed at LANL in order to produce an interim production capability pending the availability of a new pit production facility. **In any case, NNSA has determined that preliminary design of the CMRR nuclear facility would be applicable to any future pit production facility at any site analyzed in this SPEIS.** (*Draft Complex Transformation SPEIS* Chapter 3, Emphasis added.)

- j. What is the status of the LANL SWEIS?
- k. Here it states that the design of CMRR applies to any future pit production facility at any site analyzed in this SPEIS. Is CMRR a pit production facility? If so, please specify what phases are applicable.

### **5.1.1.2.3 50/80 Alternative Construction**

As described in Section 3.4.1.6.2, the 50/80 Alternative would involve expanding the current pit production capabilities of plutonium facilities in Building PF-4 to produce approximately 80 pits for the stockpile per year. To do this, a number of plutonium processing activities that are not related to pit production or stockpile certification would be relocated to other facilities or consolidated within PF-4. Additionally, this alternative includes the CMRR-NF facility, which would be expanded by approximately 9,000 square feet to approximately 209,000 square feet, to accommodate pit-manufacturing

operations. The construction activities would result in an addition of approximately 2.5 acres to the permanent TA-55 footprint, with 6.5 acres of total area disturbed during construction. The area required for the permanent footprint would represent approximately 2.7 percent of the total land area at TA-55, and approximately 5.4 percent of the undeveloped land at TA-55. (*Draft Complex Transformation SPEIS*, Chapter 5 *Environmental Impacts*, P. 5-10)

l. Is this 9,000 square feet expansion being designed into the CMRR-NF?

#### **5.1.6.2.3 50/80 Alternative Construction**

The potential exists for contaminated soils and possibly other media to be encountered during excavation and other site activities. Prior to commencing ground disturbance, NNSA would survey potentially affected areas to determine the extent and nature of any contaminated media and required remediation in accordance with the procedures established under the site's ER program and in accordance with LANL's Hazardous Waste Facility Permit. (*Draft Complex Transformation SPEIS*, Chapter 5)

m. Were any contaminated soils found in the construction of Phases A, B, and C or in the laydown area? If so, please specify the contaminants. When were they found? Where were they found? What were the concentrations? Were they found in the removed soil? If so, where is the removed soil?

#### **5.1.8.2.1 Cultural Resources Construction**

For the 50/80 Alternative, the CMRR-NF would be constructed and expanded by approximately 9,000 square feet. The reference location for the CPC is at TA-55. Almost half of TA-55 has been disturbed through development of other facilities. All of TA-55 has been inventoried for cultural resources. Due to the high density of cultural resources at LANL, relative to other DOE sites under consideration, there is a high probability that resources would be impacted during CPC construction anywhere on the LANL site, including TA-55. (*Draft Complex Transformation SPEIS*, Chapter 5)

n. Were any cultural resources encountered?

#### **4. DNFSB concerns**

[http://www.dnfsb.gov/pub\\_docs/dnfsb/rc\\_20080212\\_qr.pdf](http://www.dnfsb.gov/pub_docs/dnfsb/rc_20080212_qr.pdf)

#### **PROJECTS WITH THE MOST SIGNIFICANT UNRESOLVED ISSUES**

Los Alamos National Laboratory, Chemistry and Metallurgy Research Replacement Project.

In the Board's first quarterly report dated February 15, 2007, the Board noted its concern regarding the need to establish conservative design criteria for several of this project's safety-related systems-structure, ventilation, fire suppression, and nuclear material container design. Further, the safety basis documents had deficiencies that made it impractical for the Board to assess the overall approach for selecting safety-related systems and the establishment of conservative design criteria for those systems. Since the



last quarterly report, DOE and its contractor have been revising the safety basis documents; drafts of the revised documents are now being reviewed by the Los Alamos Site Office, Los Alamos National Laboratory, and the Board. These and other documents needed by the Board to evaluate the preliminary design should be available in early 2008. At the end of the preliminary design stage, the Board will undertake a detailed review of the project's overall safety strategy, as well as assess the adequacy of the design criteria and the design of the safety-related systems.

- a. Is the ventilation system designed to be active or passive? Is it safety-significant?
- b. Is the fire suppression system designed to be safety-significant?
- c. Is lightning protection system safety class or safety significant?

## **5. Air Permits**

- a. What is the current schedule for DOE/LANL to submit an application to the New Mexico Environment Department (NMED) for a construction air permit for the NF?
- b. What is schedule for non-rad Title V air permit application?

## **6. Status of CMR**

Significant funding will be required to keep the CMR operational until the CMRR-NF is completed. If construction of CMRR-NF proceeds on the present schedule, the CMR will require an estimated \$180 million over 9 years. If the construction is delayed, the costs will increase. Keeping CMR operational until CMRR-NF is completed cannot be assured, even with adequate funding. (*Independent Business Case Analysis Of Consolidation Options For The Defense Programs SNM And Weapons Production Missions*, Complex Transformation Reference Document, P. 12)

- a. What is the status of CMR upgrades? Will CMR be able to stay operational until CMRR-NF is completed?

## **7. Operations**

- a. Define aboveground subcritical experiments as mentioned in the CMRR brochure.
- b. Define the work involved in advanced nuclear fuels as mentioned in the CMRR brochure.

## **8. Design Questions**

- a. Was any consideration given to burying CMRR-NF? Why was burying the facility not considered?

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## Frequently Asked Questions (FAQs)

Q: Can public parties make presentations?

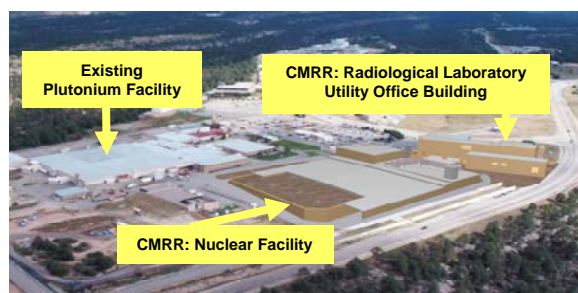
A: Yes, in regard to CMRR. Invitations to add to the agenda are sent out to settlement parties

Q: Is the nuclear facility above or below grade?

A: The facility is mostly below grade.

Q: Where exactly are the buildings going to be located?

A: Northeast of the intersection of Pajarito Road and Pecos Drive. Pajarito Road is an access controlled route.



Q: Who is the contractor?

A: Austin Commercial is the contractor for the radiological facility. The nuclear facility has not yet gone out for bid.

Q: What other construction projects have we reviewed for lessons learned?

A: We've reviewed designs and operations of the Nonproliferation International Security Center (LANL), Strategic Computing Center (LANL), Highly Enriched Uranium Manufacturing Facility (Y-12), Tritium Extraction Facility (SRS), MOX Fuel Fabrication Facility (SRS), Pit Disassembly and Conversion Facility (SRS), National Ignition Facility (LLNL), Waste Treatment Plant (HS).

Q: What is the estimated cost of the building?

A: A firm cost estimate is produced when the project's design has advanced to a point where there is both technical and programmatic agreement on the proposed solution and when we can fully articulate to the construction/manufacturing industries our end state goals. For CMRR, only the RLUOB facility construction has an established baseline of \$164M. A large part of the remaining CMRR scope has yet to achieve the maturity where cost and schedule performance can be accepted by LANL/NNSA.

Q: How frequently are public meetings held?

A: CMRR Project Public Meetings are held every six months until completion of the project, per a settlement agreement between the Department of Energy, the New Mexico Environment Department, the University of California and seven local citizens groups. These groups include: 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.

Q: What is the relationship between the CMRR Project and the *current* SWEIS?

A: The 1999 SWEIS (Site Wide Environmental Impact Statement) for LANL bounded the impacts of implementation of the CMRR Project as it is currently planned and scoped. The 2004 CMRR EIS then provided a detailed analysis of the construction and operational

# CMRR Project Public Meeting Information Sheet (continued)

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impacts of implementing the project as currently planned and scoped.

Q: What is the relationship between the CMRR Project and the *draft* SWEIS?

A: The current scope of the CMRR Project is bounded within the parameters of the new, draft SWEIS as proposed. The 2004 CMRR EIS (DOE/EIS-0350) evaluated the environmental impacts of constructing and operating a facility that would support expanded plutonium operations at LANL consistent with those described in the new draft SWEIS.

Q: What is the relationship between the CMRR Project and the draft Supplemental Programmatic Environmental Impact Statement (SPEIS)?

A: The programmatic capabilities that CMRR Project could provide are addressed in many of the alternatives considered. It is expected that the Record of Decision for the SPEIS will be issued prior to the decision for construction on the Nuclear Facility.

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## Acronyms

AC — Analytical Chemistry  
ASCE — American Society of Civil Engineers  
CD — Conceptual Design, Compact Disk  
CDR — Conceptual Design Report  
CMR — Chemistry & Metallurgy Research Building  
CMRR — Chemistry & Metallurgy Research Facility Replacement Project  
DOE — Department of Energy  
DOT — Department of Transportation  
DNFSB — Defense Nuclear Facility Safety Board  
DSA — Documented Safety Analysis  
EIS — Environmental Impact Statement  
EPA — Environmental Protection Agency  
ES&H — Environment, Safety & Health  
F&OR — Functional and Operational Requirement  
HEPA — High Efficiency Particulate Air filter  
HS — Hanford Site  
ISM — Integrated Safety Management  
LANL — Los Alamos National Laboratory  
LANS — Los Alamos National Security, LLC  
LASO — Los Alamos Site Office  
LEED — Leadership in Energy and Environmental Design  
LLNL — Lawrence Livermore National Laboratory  
MC — Materials Characterization

MNS — Mission Needs Statement  
NEPA — National Environmental Policy Act  
NF — Nuclear Facility  
NMAC — New Mexico Administrative Code  
NMED — New Mexico Environment Department  
NNSA — National Nuclear Security Administration  
NSR — New Source Review  
PDSA — Preliminary DSA  
PSHA — Probabilistic Seismic Hazards Assessment  
Pu — Plutonium  
R&D — Research and Development  
ROD — Record of Decision  
RLUOB — Radiological Laboratory, Utility & Office Building  
SFE — Special Facilities Equipment  
SRS — Savannah River Site  
SSC — Structures, systems and components  
SWEIS — Site Wide Environmental Impact Statement  
TA-55 — Technical Area 55  
U — Uranium  
US — United States  
Y-12 — Y-12 National Security Complex



LA-UR-08-1762



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## Frequently Asked Questions (FAQs) - Cultural Resources

Q: Have cultural resources been encountered during the project?

A: Yes.

The Los Alamos National Laboratory (LANL) Chemistry and Metallurgy Research Replacement (CMRR) Project, Security and Environmental Compliance Team, National Environmental Policy Act (NEPA) Coordinator works closely with the LANL Environmental Protection Division, Ecology and Air Quality Group (ENV-EAQ), Cultural Resources Team to minimize impacts to cultural resources and to ensure that all activities and operations comply with federal and state regulatory requirements for environmental protection.

LANL has taken actions, in coordination with and approval by the New Mexico State Historic Preservation Officer (SHPO), to survey and mitigate the cultural resource areas that may be impacted by the CMRR Project. Laboratory of Anthropology (LA) cultural sites identified to date include the McDougall Homestead (LA 131237), located within Technical Area (TA) - 50 and TA-55 where permanent CMRR Project facilities are/will be located, and a segment of the Pajarito Wagon Road (LA 71160), located within TA-63 where the CMRR Project intends to locate a temporary concrete batch plant and temporary lay down area.

Adverse effects to cultural features and artifacts associated with the McDougall Homestead were mitigated through systematic archaeological excavation and collection in 2005. This included collection of historic trash scatters and excavation of the McDougall cabin foundation and cellar and a nearby cistern. The final report entitled *The McDougall Homestead: Excavations at LA 131237, Los Alamos, New Mexico* (LA-UR-06-1760, March 2006) was transmitted to the SHPO in March



McDougall cabin/cellar. Post excavation.



Cellar west wall. Tuff blocks set on bedrock.



Cistern. Pre-excitation.

# CMRR Project Public Meeting Information Sheet (continued)

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2006 and approved by the SHPO in May 2006.

As part of a 2007 assessment, the Homestead era Pajarito Wagon Road (LA 71160) segment located within TA-63 was reevaluated, re-documented, and is determined to no longer be considered National Historic Register eligible as its data potential has been exhausted through in-field recordation. No historic properties will be impacted by activities associated with the proposed CMRR batch plant and lay down area. SHPO concurrence with a "no effect" determination is being requested. The 2007 assessment is documented in *Chemistry and Metallurgy Research Facility Replacement Batch Plant and Lay Down Area, Technical Areas 46 and 64, Los Alamos National Laboratory, Cultural Resources Report No. 277* (LA-CP-08-0112, January 2008).

In addition to the survey and mitigation efforts, requirements for the protection of cultural and historic resources are included in the CMRR Project construction contracts. A LANL archeologist has briefed the RLUOB construction contractors to provide an awareness to observe excavations for evidence of cultural resources, such as charcoal, bone, and prehistoric and historic artifacts. Nuclear Facility contractors will also be briefed on the cultural resources requirements prior to construction of that facility.



Trash scatter and whole bottle.



Log roller.



Pajarito Wagon Road in TA-63.

## Acronyms

CMRR — Chemistry & Metallurgy Research Facility Replacement Project  
DOE — Department of Energy  
ENV-EAQ — Environmental Protection Division Ecology and Air Quality Group

LA — Laboratory of Anthropology  
LANL — Los Alamos National Laboratory  
NEPA — National Environmental Policy Act  
RLUOB — Radiological Laboratory, Utility & Office Building  
SHPO — State Historic Preservation Officer



LA-UR-08-1761

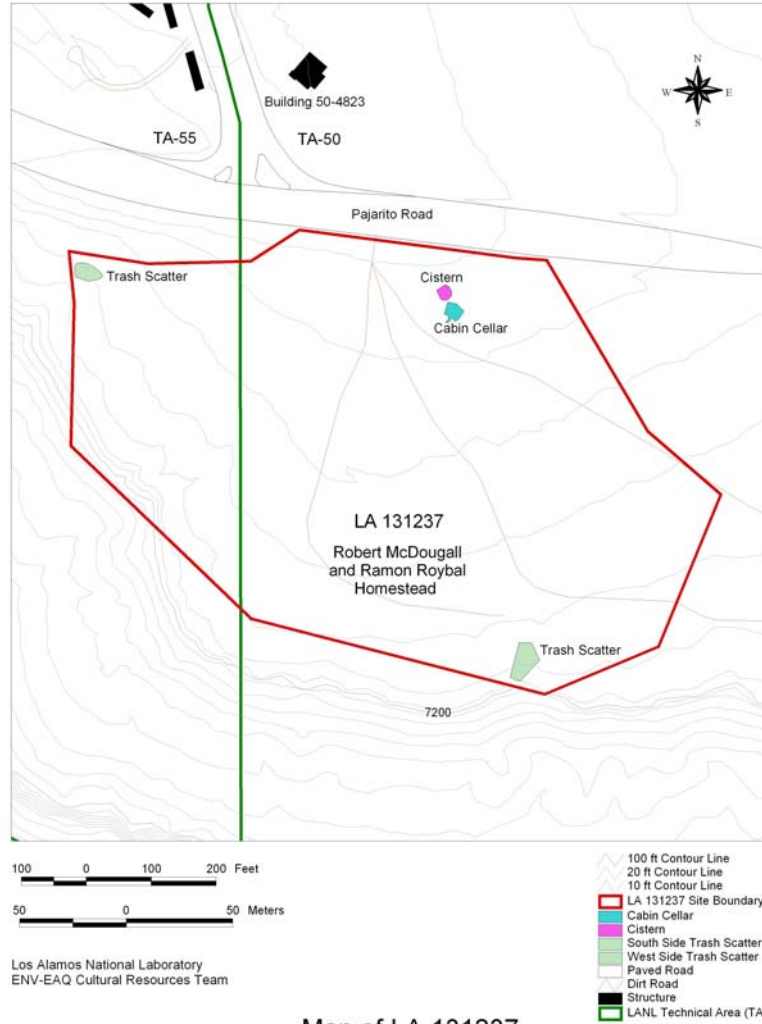


# CMRR Project Public Meeting Information Sheet (continued)

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The map below shows the McDougall Homestead area in TA-50 and TA-55 south of Pajarito Road.



### *III. Transcript*

# TRANSCRIPT OF PUBLIC MEETING

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

March 25, 2008

[The meeting was called to order by Rosemary Romero at 6:30 p.m. in the Fuller Lodge, Los Alamos, New Mexico.]

[Slide 1 is displayed]

[ROSEMARY ROMERO, MEETING FACILITATOR]

—started on time, and you watch me from that side, and I've got a live mike. Welcome and good evening to folks. I'm Rosemary Romero. I'm from Santa Fe and, yes, I am a duly elected city council person. I thank you for asking earlier. And I'm thrilled to be back in Los Alamos facilitating the meeting. So, thank you all again for the opportunity.

This is a regularly scheduled CMRR project update. We're gonna, uh, I hesitate—I think we're okay just where folks are at. It's a little, it's a little awkward with the way it's set up in this way, but it's such a great room. I think everyone can see all right. Correct? And you can hear? Alright? Alright.

[ROSEMARY ROMERO]

I'm gonna just do a couple of things here. Debora [Hall, LANL, Waste and Environmental Services-Remedy Services (WES-RS)], am I looking to you to change, or do my own? [Referring to changing slides.] Am I gonna do my own? That's fine. Alright.

[Slide 2]

[ROSEMARY ROMERO]

I'm gonna walk through a couple of things for folks. Um, before I go into the introductions, just briefly, we are scheduled to go from 6:30 to 8:30 this evening. Um, I think last time there were some questions that were asked afterwards, and so we went a little bit later. But I think we can get everything done in that 6:30 to 8:30 time, but I know that staff has sometimes welcomed the opportunity, that if there are other questions, they



stay a little bit later. And I'm looking to you all for those nods, but I am hoping that, um, we can stick to our allotted time.

[ROSEMARY ROMERO]

I'm gonna walk through a couple of things here. Our agenda this evening, I'm gonna leave this up for just a little bit. Um, I'm gonna give the welcome, ground rules, background and introductions. We're gonna go directly into the project overview and update and other updates. So this is typically how the meetings go, is we have the updates, I'll ask folks to hold their questions until the presentation part is completed. We have some questions; it's a question-and-answer time. We've got some submitted questions that we'll be able to talk a little bit more about that at that time. And then, in preparation for the next meeting, we'll spend a little bit of time at the end to talk about meeting topics for the next meeting, in, I think it's tentatively scheduled for September.

[Slide 3]

[ROSEMARY ROMERO]

So, a couple of ground rules, and, I think you've all probably seen this a couple of times before, but it's always a good reminder to listen respectfully, share the air time with other participants. And if you could please wait until you are called upon to speak. And at this point let me just remind you to, I know it's at the end about using the microphone, but in reading the transcript of these meetings, every bit is recorded. So I encourage you to please speak clearly and use the microphone when you speak. The reason is that we have these meetings, um, recorded and transcribed. So that if you would please wait until you speak.

[ROSEMARY ROMERO]

Turn your cell phones off or put them on mute. This is always a reminder because I've; I've erred on that side also. Please, no personal attacks. This is about the project. Please speak slowly and clearly because we are recording the meetings. And then always speak into the microphone, again.

[MORRISON BENNETT, TRANSCRIBER]

Have them say their names.

[ROSEMARY ROMERO]

Oh, you are right. Thank you for reminding me. It does help, it doesn't matter how many times you speak, please say your name clearly into the mike. So each time that you speak, you would be saying your name, and clearly. And you can't make up your neighbor's name, it's your name. Alright.

[Pause]

[Slide 4]

[ROSEMARY ROMERO]

This is still my slide, correct?

[UNIDENTIFIED PERSON, WITHOUT MICROPHONE]

Yeah.

[ROSEMARY ROMERO]

Just to be absolutely certain that folks are here for the meeting. Now how many of you saw this in the newspaper? Heard it somewhere else? Newspaper? How else did other folks hear about it?

[UNIDENTIFIED PERSON, WITHOUT MICROPHONE]

We're part of the settlement.

[ROSEMARY ROMERO]

Okay. So you got it via email also. So this is part of the CMRR, is a settlement allowed for air permitting to be segmented to match phased project development and for public involvement. So this is a great opportunity to get the update, have your questions answered. Some folks have submitted questions that they will have a chance to respond to those.

[ROSEMARY ROMERO]

The parties of the settlement include the New Mexico Environment Department (NMED), Department of Energy, um, the University of California, the Concerned Citizens for Nuclear Safety, Nuclear Watch of New Mexico, Peace Action New Mexico, Loretto Community, Tewa Women United, the Embudo Valley Environmental Monitoring Group, and New Mexico Environmental Law Center. And these meetings are held approximately every six months or so, in order to get progress on the C—, construction progress on the CMRR project.

[Slide 5]

[ROSEMARY ROMERO]

And then, um, from the March 2008 meeting, here's some of the suggestions that we've got for this meeting. It's the metrics related to quality control programs, and audits, assessments, inspections, identify any problems associated with these processes. And again, to remind folks, at the end of a session, we ask for suggestions. So these are the suggestions from the last meeting we had that worked their way into this meeting. Preliminary design, budget and schedule update, DOE/NNSA [Department of Energy/National Nuclear Security Administration] direction on mission, and construction on progress.

[Slide 6]

[ROSEMARY ROMERO]

All right, I'm gonna have folks, before I turn to the presentation, if I could have everyone introduce themselves, even though this may be difficult without a mike. Or actually we could actually pass a mike. Would that be helpful if we pass the mike? Okay, let's do that. And, um, if I start on this end—you've got a mike?

[TOM WHITAKER, PROJECT MANAGER, LOS ALAMOS SITE OFFICE (LASO), NATIONAL NUCLEAR SECURITY ADMINISTRATION (NNSA), DOE]

It's not on. I'll use this one. I'm Tom Whitaker. I'm one of the DOE project managers on the project and I'll be talking about the construction update for rad lab.

[STEVE FONG, PROJECT MANAGER, LASO, DOE]

I'm Steve Fong. I'm also on the federal project team for CMRR.

[TIM NELSON, PROJECT DIRECTOR, INTEGRATED NUCLEAR PLANNING, LANS]

I'm Tim Nelson. I'm the project manager for integrated nuclear planning.

[RICHARD A. HOLMES, DIVISION LEADER, CMRR DIVISION OFFICE, LANS]

Rick Holmes. I'm the CMRR project manager.

[CHARLES WILLIAM (BILL) BLANKENSHIP, CHEMICAL ENGINEER, ECOLOGY AND AIR QUALITY GROUP, ENVIRONMENTAL PROTECTION DIVISION, LOS ALAMOS NATIONAL LABORATORY]

Bill Blankenship. I'm with the Lab's air quality group. I work on air quality permitting.

[ROSEMARY ROMERO]

I'm gonna go this way with that. Thank you.

[MORRISON BENNETT]

Morrison Bennett. I'm your transcriber.

[DIANNE W. WILBURN, GROUP LEADER, ECOLOGY AND AIR QUALITY GROUP, LANL]

I'm Dianne Wilburn. I work at the Lab. I'm the group leader for the Ecology and Air Quality Group.

[TANYA GRACE]

I'm Tanya Grace. I work at the Laboratory doing process improvement.

[SCOTT KOVAC]

Scott Kovac, with Nuclear Watch New Mexico.

[JAY COGLAN, NUCLEAR WATCH NEW MEXICO]

Jay Coghlan, with the same.

[ROGER SNODGRASS]

Roger Snodgrass. *Los Alamos Monitor*.

[ROSEMARY ROMERO]

Let me just make this [easy] as possible. Thank you.

[ROGER SNYDER, ACTING DEPUTY SITE OFFICE MANAGER FOR BUSINESS, ENVIRONMENT,  
AND SECURITY, LASO, NNSA, DOE]

I'm Roger Snyder with the NNSA Site Office here. I'm the acting deputy site office manager.

[BOB GRIFFITHS]

I'm Bob Griffiths and I just live in town here.

[JEFF BERGER, OFFICE LEADER, PUBLIC AFFAIRS OFFICE, LASO, NNSA, DOE]

I'm Jeff Berger. I'm with the Lab's communications office.

[PENELOPE McMULLEN, LORETTO COMMUNITY]

Penelope McMullen with the Loretto Community.

[JONI ARENDS, CONCERNED CITIZENS FOR NUCLEAR SAFETY]

Joni Arends. Concerned Citizens for Nuclear Safety.

[ROSEMARY ROMERO]

[Inaudible words]

[MYRON KOOP]

Myron Koop and I work on the CMRR project.

[ROSEMARY ROMERO]

Thank you.

[AL MEDENDORP]

I'm Al Medendorp. Work on the CMRR project.

[NICOLE R. SEQUIN]

Nicole Sequin. I work on the CMRR project and security and environmental compliance.

[STEVE STORY]

Steve Story. I'm with the Lab's Ecology and Air Quality Group.

[DAVID FUEHNE]

David Fuehne with the Lab Air Quality and Ecology Group.

[SUE BACHMEIER]

I'm Sue Bachmeier and I'm here with Craig.

[CRAIG BACHMEIER, CMRR Building Project Director, LANS]

I'm Craig Bachmeier and I work in project management at the Laboratory.

[MARIAN NARANJO]

I'm Marian Naranjo with Honor Our Pueblo Existence out of Santa Clara Pueblo.

[ELLEN T. LOUDERBOUGH, LEGAL ENVIRONMENTAL SAFETY AND HEALTH, LEGAL COUNSEL, LANS]

I'm Ellen Louderbough with LANL legal.

[DEBORA HALL, LANL, WES-RS]

I'm Debora Hall with LANL Outreach.

[TONY LADINO, SECURITY AND ENVIRONMENTAL COMPLIANCE LEAD, CMRR PROJECT]

I'm Tony Ladino. I'm with the CMRR project.

[LORRIE BONDS LOPEZ]

I'm Lorrie Bonds Lopez. I do outreach and public involvement for environmental programs at the Laboratory.

[ELLEN MCGEHEE]

I'm Ellen McGehee. I'm with LANL's Ecology and Air Quality Group.

[Inaudible discussion as microphone is passed]

[CARL WHITE]

Carl White.

[SUSAN TERP]

I'm Susan Terp. I'm with the Laboratory's Risk Reduction office.

[PAUL TERP]

Paul Terp, and I'm also with the CMRR project.

[ROSEMARY ROMERO]

Get this [microphone] over here.

[Inaudible voices as microphone is passed]

[ROSEMARY ROMERO]

I find that it's sometimes really helpful, or not sometimes, but all the time, really helpful to see who's in the room and have folks introduce themselves. So, I know that takes a little bit longer, but it's an important piece of just getting to see who, who's here and who is represented.

[ROSEMARY ROMERO]

Alright. Are we ready to get started? We've got a little, just the right amount of time. You've got a mike?

[RICHARD (RICK) A. HOLMES, DIVISION LEADER, CMRR DIVISION OFFICE, LANS]

I do. Is it on? How about now? Okay, good. Good evening. For those of you who didn't remember from a minute ago, my name is Rick Holmes. I'm the CMRR division leader or project manager responsible for both or all the aspects for delivery and execution of this, uh, project.

[UNIDENTIFIED PERSON WITHOUT MICROPHONE]

—ask questions while you are talking?

[ROSEMARY ROMERO]

Now you would prefer to just go through the presentation and then wait for questions because there'll a, you've got like maybe fifteen—

[RICK HOLMES]

I can do it either way. Not to upset the apple cart.

[ROSEMARY ROMERO]

You can do it either way. It might be better to just go through it quickly. And then, um, so hold the questions. And then we'll come back to you, and we can always go back to



the particular slide that folks may have questions on, so it's probably more helpful to just go right through it.

[RICK HOLMES]

Okay.

[ROSEMARY ROMERO]

Thanks.

[Slide 7]

[RICK HOLMES]

So, CMRR is to replace and consolidate the mission critical capabilities that are at Los Alamos in the current CMR facility. Um, that facility, as you can see, was built in the 1940s, 1950s. Very large, very old, and is working on an extended life.

[Slide 8]

[RICK HOLMES]

And often—, and we've added a couple of charts to this presentation, which we hope you'll find useful, 'cause we often talk about analytical chemistry, materials characterization, just kinda throw that out. We don't really explain what does that mean. And so CMRR will support a number of programs that are at the Laboratory: uh, nuclear materials handling, stockpile management, materials, and manufacturing technologies. The nonproliferation programs— All of the treaty inspectors that have been deployed around world to work on nuclear weapons treaties have been trained at Los Alamos, and that training [is] expected to continue in the CMRR. Uh, waste management activities and materials disposition. Uh, it'll replace the capabilities that are currently used in the CMR facility that supports those programs. And provide a means to consolidate all those functions in the TA-55 area to make it easier, more efficient, more environmentally friendly, with the rest of the activities at TA-55, and also reducing the security posture.

[Slide 9]

[RICK HOLMES]

So what are we doing? And I think we used this chart the last time. And if you've seen this meetings ago. There used to be three parts on this chart. And it doesn't mean that the special facility equipment that was Phase B is gone. It's just now inside of each building. So we will deliver ultimately two buildings, the radiological laboratory utility office building and the nuclear facility with installed, engineered equipment. Engineered equipment is the gloveboxes, the analytical and materials characterization instrumentation. But it's also fire water pumps, and air handlers, and a whole host of other equipment that has to be engineered and put into the building.

[RICK HOLMES]

On the rad lab, itself. It's currently under construction. It has a budget of 164 million dollars for total cost for the facility itself. It will have 19,500 square foot of radiological level space. That means the total amount of plutonium equivalent that can be in the building is 8.4 grams. It will provide office space for 350 workers for in and around the TA-55 area. And we'll consolidate training areas for those workers, both classroom space and simulated laboratory space.

[RICK HOLMES]

Tom's gonna talk a lot about the construction with some photos as to where we are today, so I'll skip on that. But next part of the rad lab—once the facility is completed, we will then do equipment installation. And equipment is the gloveboxes, the instrumentation, the security, telecommunications, and other infrastructure necessary to make the building become the laboratory itself. We are in final design for that equipment, and I'll talk about when we are gonna start procurement a little bit later on.

[RICK HOLMES]

The nuclear facility is the other building. It's about 287,000 gross square feet of space, about 22,500 square foot of laboratory space. Smaller than the CMR Building that it replaces, and is in, getting ready for final design, we're in what we are calling now an

interim design phase. And I'll give you a little more specifics about that when I talk about the direction that we received this year for the project. So two buildings with installed, engineered equipment.

[Slide 10]

[RICK HOLMES]

Where do they fit in TA-55. This is Pajarito Road. And this is Pecos Drive. This is PF-4. The existing plutonium facility. This is where the red lab is being built now. Essentially started down in a hole and it's coming up out of the ground. And then the nuclear facility, this area right here, if you've driven by there, is now being used as lay-down space for the construction of the red lab. And before we start construction of the nuclear facility, we have another 30 feet of depth to go before we get to final grade for that construction.

[Slide 11]

[RICK HOLMES]

Another chart we've added, just to kinda show where we've been and kinda where we are going. You know, this project has been around for quite a while. The mission need was approved back in '02 through '04 and '05, a number of decisions to move the project forward. We expect, we got authorization to go into final design for the equipment that goes in the red lab last year. This year we expect to get approval to start fabrication, to get ready for delivery of that equipment. That's a, in the NNSA-speak, that's a CD-2,3 [Critical Decision-2,3], that's a baseline established as well as a[n] authorization to start physical work. So we expect to do that review and get approval to start that phase of the project this year.

[RICK HOLMES]

We are continuing developing the safety bases and furthering the design and technical reviews with the Defense Nuclear Facility Safety Board. And continuing with those types of activities. We had a good set of discussions with the Defense Board in March, talking about the PDSA [preliminary documented safety analysis], which is the safety basis document. And we expect late this year that we will receive authorization to start official

final design for the nuclear facility and that'll be both the equipment and the building itself.

[RICK HOLMES]

Sometime around 2011, operations will start in the red lab. Again, we have said that we will finish construction in late '09, sometime around the Fall, September '09 timeframe. We have about a two-year period for the equipment installation part. And sometime during that two-year period we will have enough of the facility completed that we can let operations start in that building while we finish the rest of the laboratories. At some point that becomes a lot like a maintenance operation, you're doing the last installations, you're doing the last tests on some of the equipment, so in other laboratories they could start work.

[RICK HOLMES]

And then based upon a start of final design late this year, sometime between 2010 and 2016 would be the construction of the nuclear facility itself.

[Slide 12]

[RICK HOLMES]

Earlier this year we got direction on how to spend the seventy—, roughly 75 million dollars that Congress appropriated, and was signed into law right after, right after Christmas. Some of that money went to finish paying for the red lab facility itself. About 13 million dollars. Some of that will go towards the red lab equipment, fabrication contracts as we get ready to do that equipment installation part, and some of that money is being used to advance the safety basis for the facility and continue what we are calling interim design. We're kinda in a middle ground between the NNSA vernacular of "preliminary design" because we finished preliminary design in December for that building; the Department [of Energy] is not ready to authorize a start of final design, and so they are allowing us and asking us to continue to do the things to make the design better: answer questions, reduce overall risks in terms of execution of the job during this particular year. And that's what we are doing.

[RICK HOLMES]

There is a hundred million dollars in the president's budget submission for '09 and the budget for years '10 through '13 is still under evaluation and development. That's kind of a change in the Congressional language from what we have seen in the past.

[Slide 13]

[RICK HOLMES]

A little about of integration of safety into the design. You know, a little bit of history; back in February of last year we had a, the Rev 0 of the PDSA, and it was, did not meet our expectations, did not meet expectations of the Defense Board. We published a new version of that document last November. We've had a good dialogue with the Department and with the Defense Board, and I think they are much more satisfied with how that document implements this defense in-depth safety concept. But it is a requirement. It is considered during the preliminary design. That analysis drives a lot of the requirements for systems in the building and it is, when it says, if that document says you must do something a certain way, then that's exactly the way that we do it.

[RICK HOLMES]

You'll hear the phrase as we go forward, not that they even in the future, talking about safety structure systems and components that are either credited, or not credited. For example we plan on having a safety class fire suppression system in the building. That definition defines a certain pedigree and a certain quality—set of requirements for that particular system because it would be relied upon should something occur in the building. That analysis takes a lot of lessons learned from other facilities. It does have very active Defense Nuclear Safety Board oversight engagement. Like I said, we had a, about a week-long set of meetings earlier this month with them. And we have developed a defense-in-depth safety concept, which walks through these seven types of controls and, in short, it just starts with “minimize the hazard as close as you can to where it is,” meaning minimize the amount of material that is at risk. Um, use engineered controls instead of administrative controls. Ah, use things that are passive as opposed to active, meaning you can rely much more on something that is just physically present than not. And prevent the hazard closer to the source as opposed to further away. And so the safety basis does in fact implement these seven sets of controls and as we dialogue, there's something, we postulate a[n] event and we walk through and mitigate that event by using the controls that are in the facility.

[RICK HOLMES]

It's either a safety structure, a system, or component. It's the fire suppression system. The building itself. Those types of, those types of things.

[Slide 14]

[RICK HOLMES]

The last thing I wanted to talk about, and this is somewhat new, uh, the left side is not new, is that, ya'know, we are pursuing on this project LEEDS certification. That's the Leadership in Energy and Environmental Design. It is a voluntary consensus-based standard. You've heard us talk before that the red lab will be submitted for silver certification itself. We have just decided this year that we will submit the nuclear facility for LEED certification. I'm not sure whether it's gonna be silver or gold or just plain LEED, but this would be the first facility of its type that would go through, not only a capability to be LEED-certified, but go through the certification process itself. We have to submit that to the Department of Energy acquisition executive for their approval, but I don't see any reason why they wouldn't say, "Please do that." So we will submit the nuclear facility for LEED certification, which I think is a very good thing. Uh, you can read kinda what that, what that does include.

[RICK HOLMES]

That's my part. I'm gonna be followed by Tom Whitaker, who's gonna talk about the red lab construction itself.

[ROSEMARY ROMERO]

And we're doing great on time, so it looks—

[RICK HOLMES]

Okay.

[ROSEMARY ROMERO]

So let's hold the questions for sure. Is it on? Am I on?

[AUDIO OPERATOR]

Yeah, you're being recorded.

[ROSEMARY ROMERO]

Thank you. This is not my mike. Okay Tom [Whitaker].

[Slide 15]

[TOM WHITAKER, PROJECT MANAGER, LASO, NNSA, DOE]

Okay. Like I said before, my name's Tom Whitaker. I'm one of the project managers for DOE on this project. My responsibility is kinda the construction design and execution of the red lab portion of the project. Rick [Holmes] kinda gave an overview of the red lab. "Red lab" stands for "radiological laboratory utility office building." It's located at TA-55, adjacent to current plant nuclear facility.

[TOM WHITAKER]

Ah, here are some of the specifics. We talked about those a little bit. Nineteen thousand five hundred square feet of radiological space; Emergency Operations Center. We've got a couple of cutouts here for folks to get a sense for the building. This is an actual kinda of a north-south cut. We have five stories. We have a laboratory support in the basement. This first floor here is the lab modules. We have offices on the first—this is the actual floor you would enter in, main floor. We have a lobby that separates cleared and uncleared spaces on these two floors. Up on top is the offices for the training folks at TA-55. And the training area over here which includes mock-up labs and folks get trained in gloveboxes. So it's kinda a multipurpose-type facility.

[TOM WHITAKER]

[With laser pointing back and forth between slides and photographs mounted on poster boards]

Some important specs on the building. People always wonder, the radiological laboratory. Let me come over to this photo as well. It's kind of a plan-view of the facility at the



ground level. Down here is Pajarito Road. And Pecos Road is over here. TA-55 complex is up here. So we have the actual red lab which is kind of areas A, B, and C. And then we have the central utility building adjacent to it which is called the "CUB." So, those are kinda the acronymy's we've been using. Just to get people used to that.

[TOM WHITAKER]

The red lab itself is about 185,000 gross square feet of space between the five floors. The CUB is about 21,000 square feet on the three floors in the CUB. We have about 116,000 cubic yards of concrete planned for the building, for structural concrete. We've got about 11,000 yards placed to date. We have structural steel elements in the mezzanine. You see some photos of that. And structural steel up on top. The top three floors, it's about 1200 tons of structural steel. We have about 130 tons in place so far.

[TOM WHITAKER]

Cabling and conduit. We have about 200,000 linear feet planned for both of those types of runs. We have about, our exhaust ductwork, for our exhaust system, about 6,000 linear feet. You image that in your home, you got a comparison to that. And, uh, we've excavated between these two locations about 220,000 cubic yards of materials.

[Slide 16]

[TOM WHITAKER]

So, I've got a lot of photos here. 'Cause we've done a lot of work. So let me go real quick over our time line. Rick [Holmes] kinda talked about that. You see time now, we're here in FY08. We've started all the construction. We're wrapping up our structural concrete work here. Within the next month or two we should be finishing up that work. Structural steel has started and should finish up probably by the end of this fiscal year.

[TOM WHITAKER]

MEP installations, mechanical, electrical, piping. That's all the utilities coming in for ventilation, service chilled water, hot water, what I call cooling systems, all that electrical

type of work. We're in the process of doing that and that'll continue out through the rest of this year.

[TOM WHITAKER]

Then starting in sometime in FY09, we'll actually do our start-up in CX, stands for commissioning. That's kind of a short cut for commissioning. Where we actually get systems on line, test components, make sure they operate within specifications. And that we'll be getting the system requirements that we contracted for with our contractor.

[TOM WHITAKER]

We're looking to have beneficial occupancy, September 30th of '09, which is our commitment to the deputy secretary. And, as Rick [Holmes] talked about, we'll have close-out in operations after that.

[Slide 17]

[TOM WHITAKER]

So, since our last meeting, it's six months, a lot of work has been done on the project. So, I've got a lot of photos in here. I'll try to cover all this. This photo up here, I kinda have a timeline here, kinda in sequence here, to see what's happening, to get a sense for the site. This is down in Area B and C. This is Area B and C is over here. So I have that referenced wrong over here. And we're actually working on the basement floor.

[TOM WHITAKER]

I've got a laser pointer here, work better for you guys. So it's a basement floor down here. These are called tables. And this is the first floor elevation. So, here's the basement floor and here's this first floor. So what we actually have here, is we have slab on grade, concrete that placed down on grade, on footers and grade beams on a design-engineered system. These tables are actually spaced to support the level above it. So the concrete is placed in forms on top of those tables to support that first level deck.

[TOM WHITAKER]

We are working from the south end of the site towards the north. So, kind of Areas B and C going towards Area A. And the reason for that is, we're, we're in the process of constructing a retaining wall, which is like the north boundary of the excavation. And so we had a lot of dirt excavation and work going on that prevented us getting access. So up here is this retaining wall, by Area A. So this area wasn't available to us for construction while the specialty subcontractor was working at constructing the retaining wall. Kinda of what we have, the way the structure is designed, is we have a structure on grade down here, which is reinforced concrete steel. These are backsides of concrete form walls, or forms for concrete walls which are also rebar structurally reinforced. You can see the rebar sticking out. And then we have columns spaced along here which are also reinforced concrete. And then on top of this we would have those tables would be in here, and that next elevated deck, would come right in here. So that's kind of the structure of the main floor of the facility. Thanks Rick.

[Slide 18]

[TOM WHITAKER]

So these two photos are the retaining wall. You can see it's about 25 to 30 feet deep. Here's another view of it completed. There's a series of rock anchors in here which have been installed in a pre-designed pattern. And these anchors are about 20 to 25 feet long. They are drilled in place. They are grouted in place. And we tension those. We go ahead and take a hydraulic jack and tension those anchors. And what that does, is that tensions this entire rock wall here so it's a stable feature. So, instead of putting masonry or have a slope back is— space is a premium at TA-55— we'll have a vertical a rock wall system.

[TOM WHITAKER]

This is a view of that rock, that retaining wall completed. You can see these anchors. This portion also has rock anchors, but it has been covered with a skin coat of concrete. They actually shoot the concrete on with a nozzle. And this part will be exposed, but the site will be back-filled up to this level and over here. So this little portion will be exposed. And where you see all these rock anchors, that's actually going to be back-filled by the concrete construction project finished.

[TOM WHITAKER]

So you can see now that we have this retaining wall out of the way, it's kinda opened up construction for us here in Area A, this north part of it. So we have a bunch of footers and grade beams, just like we did in the southern [portion] of the building. In addition to that, we had construction starting on the second level as well. And this is some of the reinforced walls that go in the central utility building. Okay Rick.

[Slide 19]

[TOM WHITAKER]

Next one here, this is a view right of that first elevated deck, that's up in this area. And this is actually over here in Area B, down here in the south portion of the building. And what these are, these are a series of beam pockets that are formed by concrete, by wood carpentry form work. They are about a foot and a half, two foot wide, about five or six foot deep. And this is kind of a floor mat. So we have a bunch of reinforced steel that runs and forms these beams; then we have a, a thin 12 inch or so of a format.

[TOM WHITAKER]

And I've got some photos that show what that looks like completed. Let me go back here Rick. Go back. Up arrow. Try the up arrow. All right.

[Slide 20]

[TOM WHITAKER]

Down here, these are some of the penetrations that we have, that are designed in the—as part of the engineering design for future. These are sleeves for utility pipes running through walls. And we actually have some embeds also that go into these different floors in different locations. So, we have to have all that information in place. We have to have—the engineer has to design it. And you have to account for that during construction, 'cause you don't want to have to come back later and drill holes through concrete walls to get pipes through there. So you have to plan ahead. And there's additional concrete reinforcement around these penetrations.

[TOM WHITAKER]

This November, you know we had some moisture controlling issues to try to—we're doing a big slab-on-grade area, right here in Areas B and C. These are about 300 to 350 cubic yards of concrete being placed. You have a large crew of about 40 or 50 workers and craftsmen. We had rain coming down, so in order to protect the slab here, we had some, uh, to keep the moisture off so we wouldn't get puddle marks on the slab here. So a lot of work, a lot of folks on hand, it's about a six to eight hour process sometimes with these larger placements occurring.

[TOM WHITAKER]

And of course, uh, some of these placements also took place at night. Continued on into night after the concrete was placed, we had to finish the concrete within a certain amount of time. So we had concrete finishers. Same thing with moisture protection here for the snow fall.

[TOM WHITAKER]

You can kinda see up in here, now that we've completed the grade beams, we're starting to bring our walls, our first floor walls, up here around Area A. So we don't have the slab in yet, but we're starting to work on the walls. And then we, what we'll do is bring the slab-on-grade from the south towards the north.

[TOM WHITAKER]

And you can see in these photos over here. Here's some more of the concrete, the forms on the lower floor here. And then we have the slab-on-grade prop work happening in there as well. Okay, next one Rick.

[Slide 21]

[TOM WHITAKER]

This is kind of the, the 2001 Space Odyssey, I guess, or Easter Island, I don't know. Whatever you look at. But these are a series of columns that are wrapped in blankets.

And there's a wall section over here that also had insulating blankets. So we are doing concrete work in the wintertime, so we have special concrete placement requirements for cold-weather concrete. And one of the things we that have to do is maintain temperature per the requirements for our concrete. So what we have is, we've had these insulating blankets on these columns, on these walls, and in certain situations we'll pre-heat where that concrete is going. We have to have a certain minimum temperature requirement for the concrete placement and columns and walls. And once the concrete's been placed and it's curing, we also have temperature requirements to make sure we maintain minimum temperature requirements to meet to meet the quality and specifications.

[TOM WHITAKER]

We also have, uh, temperature, we have thermometers and thermocouples installed in here so we can record the temperature over time to make sure that we are meeting those temperature requirements for cold weather.

[Pause]

[TOM WHITAKER]

Okay, so this other one here, I think is just showing the walls and our working here along this retaining wall line up here. So we've kind of, bringing the forms around this way, we're bringing the slab on grade down in this area. Next one Rick.

[Slide 22]

[TOM WHITAKER]

So, as we are working on bringing the structure up to the North, we've had this Area B and C constructed since the last, when we had the last meeting, we had our slab on grade and our first elevated deck being worked. So that area here is actually, you can see, these are some of the columns that were placed before. These are some of the beams we see overhead that I showed you those beam pockets that are being formed. This is actually in the basement here, this laboratory support level, down in this area here. So this is the slab on grade, this is the bottom of the first deck up above. And we have these twenty-three-foot tall columns down here. And what this area is, you can see these plates on these

column beams here, we actually are installing structural steel all through this area. We are gonna make kind of a mezzanine area. And this area will hold a lot of our ductwork, our fans, our HEPA filters, and all that for the ventilation systems that support the laboratory modules up above.

[TOM WHITAKER]

Also we are running some of the larger diameter pipe in that area as well. Service chilled water and hot water that runs from, from Area B into the CUB. That's where a lot of the main equipment for utilities will be located, is in the CUB.

Still in January here now, we are also making more progress on the finishing up the second floor of the central utility building. Okay. Next one, Rick.

[Slide 23]

[TOM WHITAKER]

And of course, we have weather in northern New Mexico as everyone knows. We had a lot of snow this winter, which is great. But it is a challenge for construction. Mostly from the aspect of, we have to bring in craft, you have to come in and clean the snow off the work surfaces. Clean the work areas off; make sure our temperature control is correct for our concrete. And so there's, and also a delay in getting the majority of the craft. We have a small group of folks that will come out early in the morning and clean off the work site until the balance of the craft come on board.

[TOM WHITAKER]

Uh, down here you can see now we are working on, in January and February, they finished the slab on grade in Area A. And we've got those tables that I talked about that they are building out, to start bringing those out, to finish putting tables in Area A in preparation for that first slab on deck.

[TOM WHITAKER]

This section here is actually in the lab module space. So we are kinda looking right here in this second floor where the laboratory modules will be. You can see we have another 23-foot clear span in here, so more beam pockets, and I'll show you some pictures coming up how those are formed. And what actually you can see these tables here that support those. They have adjustable screw legs that they can lower those a few feet. Then all this form work which is attached to these tables on top, you can see there's a bunch of wood in here, and we actually have a worker on a scissor-lift removing all this form work to expose the cured concrete. Okay, next one.

[Slide 24]

[TOM WHITAKER]

So now up here, we've got those tables brought all the way up to Area, in Area A, so all our tables are up here in this first floor, and we are getting prepared to go ahead and place this concrete. Actually we had a placement today, 300 and something yards just finishing up right now. So this deck is actually completed up to about this portion. So this first elevated slab is completed to here. There's a small strip to be finished up, probably this weekend. So that's a pretty big milestone. You can see we have all of our structural walls wrapped around; now we are getting our first deck on board here.

[TOM WHITAKER]

This second deck on top, that's this deck, the top of the lab modules and the base of the office space, on the first, on the main floor when you walk in, is a post-tension deck. So here's a, one of those beam pockets that I showed before, from the floor below, and this is up on the second floor deck, and we do have reinforcing steel, but we also, we have a lot of smaller diameter tendons in here. And the way this system works, is each of these beam pockets will have maybe fifteen or twenty smaller diameter cables that are kinda draped in a parabolic, in a wave pattern inside of these beams, which maybe are sixty or seventy feet long. What we do then is, one end of the, the end of the, uh, these tendons are anchored inside the beam element. The other ends extend out past where concrete is placed. We then place the concrete. It cures for a minimal, I think, seven days. Is that



right Myron? I think we have a seven-day requirement. Myron [Koop], is one of our QC [quality control] managers for us.

[TOM WHITAKER]

And after they cure, we go in there, there's a special machine that comes in, and we'll grab each of those tendons, and we'll pull 'em a pre-set amount. So there's a specialty engineer, a post-tensioning engineer who determines how much elongation of these cables are. Those are all pulled, and what that does then is stresses this whole beam element, so it can meet the design loads for that floor. So instead of having massive amounts of rebar to reinforce, like we do on the slab on grade down here, or this first floor, this is all post-tension deck. And that's what this is here.

[TOM WHITAKER]

Over here is a photo inside of the mezzanine area looking up. Now that we've got the, the CUP, first few floors and Areas B and C completed, we can start bringing in more permanent, safer access versus, right now we have a lot of gang-ladders, or wooden ladders, which are all OSHA compliant, but now it's a lot easier, quicker to move folks up and down on stair towers. So we are kinda getting more equipment inside, we're getting lights inside for working now, 'cause there's lot of activity taking place there.

[TOM WHITAKER]

Let's see. Next one.

[Slide 25]

[TOM WHITAKER]

So here's a photo of that first floor again, and there's those beams of the second floor that we showed. And these little embeds right here that we are seeing are plates, steel plates embedded in those columns, and we'll have steel, structural steel, small pieces of steel come down and we'll be hanging these overhead service carriers in these lab modules. And that'll hold some of the heavier utilities associated with operating the laboratory spaces. So those are overhead service carriers, are hung off of these beams, so you can

see these embeds all need to be installed prior to us placing the concrete. So all those things are specified in our design drawings. The craftsmen will install 'em in locations. Surveyors come in to verify locations. We have inspectors, and I'll go through an inspection process here a little bit later on.

[TOM WHITAKER]

Now you can see here, where I talked about before, we are almost getting ready for placing concrete on our first floor deck. We are finishing up the CUB here. This is the second floor of the CUB wall. You can see how heavily reinforced they are. Just to give you folks a sense of these first two floors of con— the first two floors in the red lab and the CUB, they are about 20 to 23 foot high, reinforced concrete, typically 18 to 20 inches thick. So they carry quite a bit of load. So, on these reinforced. And then you can see inside the CUB here, we're starting a bunch of electrical conduit. So our mechanical, electrical piping that I talked about, those activities, you can kinda see those happening down there now on the project. Next one Rick.

[Slide 26]

[TOM WHITAKER]

And the next thing that's really been happening now that's really kind of a dramatic change in the project, ya' know, placing concrete takes a while, there's a lot of activity getting placed, and now we are working on our structural steel. So, the top three floors of the facility here are all erected with structural steel, be built with structural steel. All will be office spaces in the training complexes. So we actually got these big columns coming in with these cross members all being connected and bolted together. You can see here, one of the craftsmen, the ironworkers, attaching that. We have bolted connections to help us erect the structural steel, but the final design here calls for welded connections once these, once everything's erected. And you can see these columns in here, so in a matter of a few days, we just had this structure and all of a sudden you see these big thirty-foot plus diameter columns coming up. So it's very impressive. The plan is these top three floors will have these pre-cast concrete panels. We'll be hanging off of the structural steel. And there's some renderings when folks get a chance— You can see some of the color

rendering there, but these panels on side of the building here are all pre-cast concrete panels, lightweight concrete, which are attached to the structural steel. And then you have interior finishing going on with that. Next.

[Slide 27]

[TOM WHITAKER]

So to kinda talk about our quality assurance requirements. Uh, people see QA/QC [quality assurance/quality control]. I kinda envision quality assurance as kinda programmatic, overarching, requirements on the project to ensure we have quality, we meet our requirements. Quality control, I kinda look at as the folks implementing quality from a perspective of inspecting that what's installed in the field by the craftsmen meets the design drawings that have been approved. So that's kinda the inspectors and those types of things. So, QA/QC. So we're implementing NQA-1 [Quality Assurance Requirements for Nuclear Facility Applications, American Society of Mechanical Engineers] in this program. We have from the get-go. Austin [Commercial Contractors, LP] has their own quality assurance, quality assurance program and quality control folks to implement NQA-1. The Laboratory team has a QA/QC function where we actually do oversight and I'll have a slide coming up to kinda go over that, how we do that in quality control and quality assurance to make sure that we have a quality product that meets requirements, to meet our contract requirements, to meet our commitments to [DOE] headquarters.

[TOM WHITAKER]

Some of the special requirements that we have in addition to QA/QC is the International Building Code requirements, there are special inspections and testing for seismic and structural components with the project.

[TOM WHITAKER]

This picture here, is just kind of a sense. This is one of those rebar beams that we talked about. And kinda what our quality inspectors will do, they'll measure the spacing of these bars. Those are all determined by the engineer, what the spacing is, the vertical spacing,

the horizontal spacing. Make sure we have the right diameter bars. You know, these bars vary from a quarter inch up to over inch and a half in diameter, and so certain bars need to be in certain locations with certain spacing. And then we have these stirrups that hold these cages together. We need to make sure those are spaced properly, that we have the right seismic ties on here. So, there's a lot of stuff going in, just to even, just to even inspect rebar. And we inspect all the rebar, all the concrete that's put in place. Next one.

[Slide 28]

[TOM WHITAKER]

So this is kinda showing our layers of inspection and oversight to ensure we have a good quality product and ensure the outcome of the project. Now, on top of here, or you could put it the other way if you want, the pyramid— we actually have a person who actually installs the product. If it's rebar or concrete. He has shop drawings, design drawings that they are supposed to produce to. Then the Austin construction supervisor will go ahead and look at that product and make sure it meets his requirements, that all the design requirements are met. But Austin has their own quality control inspector who'll go out and verify that work. On top of that, the LANL team has our IBC inspectors to do special inspections for International Building Code requirements. And then we also have specialized inspection test plans, ITP, that were generated during the design for a particular type of activity. So, structural steel or concrete will have a special test and inspection plan that requires certain kind of testing specified by the engineer, and we'll make sure that that inspection regime is being followed.

[TOM WHITAKER]

Then we also have a dedicated quality control manager who manages all our inspectors to make sure everything is being done. Then on top of all that we have our own quality assurance program, which is also under an institutional, I guess, on top of that. So we have our own folks as well. Okay.

[JONI ARENDS]

Is that DOE?

TOM WHITAKER]

We have DOE audits that have been done and then also institutional is separate. The quality assurance division does audits that will be [answering] questions on [the building] Joni.

[Slide 29]

[TOM WHITAKER]

Some of the photos on some concrete work here. Some of the test that we do is that we have a wheelbarrow which will actually come out of the pump truck. For the concrete truck generally we pump concrete into place. There's a large boom truck because we can't reach all the areas where we need to place concrete with just the truck backing up [like backing into] your back yard and dumping out the dumpster. We actually have into a pump which can pump it up to 150 feet. There's a big boom. So we'll actually take a piece, we'll actually, before concrete's placed, we go in and collect a sample of concrete, and there are certified inspectors, Austin has inspectors; and we have folks that verify that their inspectors are doing the work properly. This is a cone here. What we'll do is we'll fill this full of concrete, level it off, and he'll pull that cone off, and there's a bar that comes up. And he'll put that bar up and it'll measure how much the distance from the top of the bar to that concrete slumps on the ground. Once you pull that cone up, the concrete based on how viscous it is will slump a certain amount. And that measurement, y'know, however many inches, five, six, seven inches, whatever it is, the concrete specifications will say you have a slump of concrete plus or minus so many inches over a range. And this is the testing mechanism that's done for that.

[TOM WHITAKER]

Down here, on another concrete placement, you can't really see it too well, but there's a metal cylinder here where they'll pressurize this with air to measure the amount of entrained air in the concrete. Some of the concrete specs that we have, have certain ranges of air specified, other ones don't, depending upon their particular application. So it's kinda different concrete recipes that we use in different applications on the project.

And also, what we do, we collect concrete cylinders of all the concrete that's been placed. We have— these are kind of a quality record for each, each of our placements. And those are maintained. If we ever have issues or questions on concrete, we can come back to these cylinders and do all the various types of testing to ensure that there aren't any problems with concrete. And we haven't had any at this point. So that's kinda our— we also test temperature and we get a ticket from the batch plant, the local batch plant provides our concrete. They tell us what admixtures were in there, how much water was added, what's moisture content in the aggregate. There's a whole series of tests and stuff and information that we collect from the concrete placements. Okay.

[Slide 30]

[TOM WHITAKER]

Construction safety. Very, very important on the project. We've got a very good track record. A photo over here, kind of our mass safety meeting. We have a meeting every Tuesday. We just went through it this morning. Some of the folks from the project vendor as well. Typically we have anywhere from 150 to 200 craft on site at any one time at this point in the project. And all the craft are brought together for a weekly safety meeting where Austin supervision goes through various safety topics. We also have the Austin supervision folks are there, the field supervisors are there, the LANL folks are there from the project as well. Rick [Holmes] has attended, I attend all the safety meetings. So, it's a lot of management involvement, and they are very good, very important meetings. I've done a lot of construction for the government, and these are very good safety meetings, they get it off various topics.

[TOM WHITAKER]

We're still operating our zero accident team which is management from Austin, construction, myself. I attend those, Rick attends those. You also have craft representatives. And we have a safety incentive programs, we do weekly site walkdowns, talk about construction activities coming ahead, and what type of safety hazards may be involved with those new construction activities. So we're always, always have the eye on safety. Ya' know. We also have a lot of Hispanic craft. And after this meeting, there's a

separate Hispanic meeting in Spanish for those craft, to make sure everyone gets the message on safety. Next one.

[Slide 31]

[TOM WHITAKER]

One of the things that Rick and his team have implemented which is a very good proc— very good, is the people-based safety. Basically what this is, is we have actual craft members who aren't safety professionals, but they get trained and coached in safety, and they kinda do observations over fellow craft. So they'll go out and assess those and see how well they're doing safety-wise, do they use the right personal protective equipment, are you using safe work practices, and all those types of things, and kinda critique that. A kind of a no-blame, no-game, er, sorry, no-name, no blame. And it's kind of a peer-to-peer, so these guys are called "DOGS." They came up with the name themselves. Daily observations, getting safer. There's a photo of them. Their champion is Joe Honea [CMRR Safety] and Rick here. And the idea is, you can have safety at the top level, talk about folks to do it, but the people who really do safety are the guys in the field. I mean, you can try to inspect their—, demand that in, but this is, the thought behind this is to get the craft talking to craft. And they'll listen to those folks and help 'em along. It's been a very effective program. I'm very, very supportive of this, and I know LASO is, the NNSA as well. So, very, very good program. Okay, next one.

[Slide 32]

[TOM WHITAKER]

It's environmental compliance. We've had a, on our storm water pollution prevention, 69 inspections to date since the project started. We've had 13 inspections since the last meeting here in September. These storm water inspections need to occur every two weeks; they usually occur every second Tuesday; or when we have rainfall events or snowfall equivalent moisture of a half inch or more. And so we've had 13 of those. They are performed by certified inspectors. We have representatives from the Laboratory institutional Water Quality and Hydrology Group. They walk the site along with Austin construction management folks as well as our safety folks on the CMR[R] team or from

the Laboratory. And this photo here just shows some of those typical best management practices for storm water control. We've got silk fence; got a berm here; we got some geo-textiles to help with erosion, and we've got a check dam here. As water moves down here, this, hit the check dam and kinda slow down erosion, make sure that we don't have any sediment leaving site. But a very, very good job. We've done a lot of street cleaning, and a lot of, we're doing a lot of maintenance. We've done an excellent job on maintenance. And, uh, we haven't had any issues with storm water since last meeting. Next one.

[Slide 33]

[TOM WHITAKER]

Kinda real quick. A P2 [pollution prevention] update. As Rick talked about, we're going for LEED certification and we're gonna get there. That's very impressive. We've got a 2007 LANL Best in Class award for recycling our materials on site and having cost savings. That information was passed on to headquarters and we've got the complex-wide environmental stewardship award for our recycling. So, that a lotta stuff in there, folks. Sorry about that, but, uh—



[Slide 34]

[ROSEMARY ROMERO]

I think folks appreciate that you were, uh, . . . [turned away from microphone for a few words] shaved a little bit of time, which is great. Really appreciate it. So just to remind folks that just came in, um, I'm Rosemary Romero. My colleague Ed Merino is the other facilitator. If you wondered who the heck I was. Um, and, um let me remind you that there's a sign-in sheet at the front. There's the handouts that we use for the presentation on the project. And then there's another handout that are the questions that were submitted that are also available at the front.

[Slide 35]

[ROSEMARY ROMERO]

So, Scott [Kovac], let me ask you a quick question, is since you submitted the questions, earlier, as part of the program here, so we've got those at the front. My sense is to open it up to folks, because there's probably questions specific to the presentation. So, I've seen the nods. So, we'll open it up to those questions about the presentation and then come back to the questions. That make sense? And there are staff in the audience that I'll turn to for some of the questions. Since I don't know who would be the most appropriate to answer the questions, I'll look to um, folks who'll give me the heads up, or hand up, to make sure I can point to them to help answer the questions. All right.

[ROSEMARY ROMERO]

Again I'll remind you, is, I'm gonna hand— Debora [Hall] we are going to both do the mike on this one? All right. Um, in order to make sure that we get all of the tra—the transcription needs to be clear. In order to be sure that we get everything into the transcription, I'll remind you to say your name slowly, clearly and ask your questions slowly and clearly. And then we'll, if folks don't have a mike, I'll make sure I get a mike to those that are going to be responding. And Deb Hall will be helping me with the mike on that side. Make sense?

[Slide 36]

[ROSEMARY ROMERO]

We've, and we're, we've actually got, I think we've got about an hour or so, which is great because when we did the timing on this, we think it takes about that long to make sure that we've answered all the questions. So, open it up to questions about the project, which is what we are here to do tonight, is project-oriented questions or on the presentation, please. Deb [Hall], would you mind getting that to Scott, please.

[SCOTT KOVAC, NUCLEAR WATCH NEW MEXICO]

I've a question. The workers that are gonna be in the red lab building. Where are they working now? Where—

[ROSEMARY ROMERO]

Where are the employees, where would they be situated on the schematic here?

[SCOTT KOVAC]

No, where?

[ROSEMARY ROMERO]

Okay.

[SCOTT KOVAC]

This building is replacing a building—

[ROSEMARY ROMERO]

All right.

[TIM NELSON, PROJECT DIRECTOR, INTEGRATED NUCLEAR PLANNING, LANS]

They are working in the CMR Building. The existing CMR Building. Just like we are.

[ROSEMARY ROMERO]

It's on, actually. [About the microphone]

[TIM NELSON]

Okay. They are working in the existing CMR Building.

[ROSEMARY ROMERO]

Say your name, please.

[TIM NELSON]

I'm Tim Nelson.

[Laughter]

[TIM NELSON]

And that was Scott Kovac.

[ROSEMARY ROMERO]

It's a great reminder. Thanks Scott. And you'll hand that back. Others? Please?

[JAY COGHLAN, NUCLEAR WATCH NEW MEXICO]

I'm Jay Coghlan with Nuclear Watch New Mexico. I have kind of combined questions on slide number 9 titled "CMRR Project Scope" and slide number 11, which is "High Level Schedule." Now with the former slide, it's stated that for the nuclear facility there'll be 22,500 square feet of lab space. In a supporting document for the complex transformation supplemental programmatic environmental impact statement, um, uses the same figures and calls that process space. So I take it that space and process space is synonymous, is it not?

[TIM NELSON]

I would— Can you turn me on, please.

[ROSEMARY ROMERO]

You are on.

[TIM NELSON]

Here I go.

[UNIDENTIFIED PERSON]

Thanks.

[TIM NELSON]

I'm Tim Nelson. Yeah, I would assume that's the same, it is the same. And just [to] clarify a little bit of, back to Scott's question: There are people that are doing training, as an example, that are actually housed downtown. You can get into a lot of individualistic things, but in general, the response to your previous question, they're moving [from] the CMR Building. So the 22,500 net square feet is same as process.

[JAY COGHLAN]

Yeah. Okay. And so that sets the basis for my question on both considering that slide and then the "High Level" slide. So, when you look at the complex transformation PEIS [Preliminary Environmental Impact Statement] and also this so-called business case for special nuclear materials consolidation. First of all, for the 50/80 alternative for pit production, uh, it's stated that 9,000 square feet *may be* added to that 22,500 square feet of process. With the 80 to 100 production of the pits states that that 9,000 square feet *will be* added. You know, do the math, what is that? Roughly a 30% increase to process space. So where I'm going with this, is, um, well, a couple of different avenues. Uh, what are current plans for adding that additional 9,000 square feet of process space? Um, and then I'll also note that, um, how closely is final design authorization tied to the record of decision for the complex transformation PEIS? According to this, they seem to be roughly coincident in time.

[STEVE FONG]

Thanks Jay. This is Steve Fong, the NNSA project team. Jay, the 9,000 square feet, we got specific program direction not to include that in the design as we speak. So right now, we are not considering that additional 9,000 square feet. Um, and yes, there is more than a coincidence of, of the timing of when we start final design. Uh, with the PEIS. We like to do things in concert. And we wanna make sure we have the right parameters. So we start final design, we know exactly what we are up to. So, um, does that answer it?

[JAY COGHLAN]

With one follow-on question. Um, so there's still some ambiguity. Under the 50 to 80 pits per year alternative, are you categorically stating that 9,000 square feet will not be built additional, 9,000?

[STEVE FONG]

No. That requires further study. And that's going on as we speak.

[JAY COGHLAN]

Okay. Thanks.

[ROSEMARY ROMERO]

Thanks Steve [Fong]. Joni, you had your hand up earlier. Do you still have a question?

[Pause] Okay, let me hand this mike back to you here please.

[JONI ARENDS, CONCERNED CITIZENS FOR NUCLEAR SAFETY]

I'm Joni Arends, Concerned Citizens for Nuclear Safety. Um, I have several questions. I guess the main question right now is about this concrete. And there was this article in the paper in December about the LANL building project faulted and that over, what? A hundred, ah [pause] What was it? How much cement, concrete was poured—

[ROSEMARY ROMERO]

Was that in the *New Mexican*, Joni?

[JONI ARENDS]

Yeah.

[ROSEMARY ROMERO]

Okay.

[JONI ARENDS]

And the *Journal North*.

[ROSEMARY ROMERO]

The *Journal North*. All right.

[JONI ARENDS]

Um, I had the number just a minute ago. [Pause] Sorry.

[ROSEMARY ROMERO]

That's right. And it might be helpful to do one question at a time.

[JONI ARENDS]

—100 cubic yards of the concrete before the error was discovered by Lab QA personnel.

[ROSEMARY ROMERO]

Okay.

[JONI ARENDS]

So what's the status on this? Did you have to remove this concrete? Where was it?

[TOM WHITAKER]

Yeah, Tom Whitaker here. Ah, a, Joni, uh, where that came from, there was a miscommunication, I think, among the newspapers and the articles that came out. I think

that was driven from the POGO [Project on Government Oversight] letter that was out. All the concrete that's been installed in the facility is [sic] all been tested and met all the requirements. So there's no non-conforming concrete installed or placed into the facility. So we have all the testing. Now there's been concrete that's been delivered to the site and did not meet specifications, and it was wasted. It was not placed in the facility. So that's what our inspection process, I was showing that those folks and the qualifications to make sure that happens. So there has been no non-conforming concrete placed in the facility. We've had concrete out of specification, and that concrete has been rejected, from the site; and was not used.

[JONI ARENDS]

So, is there a response to the POGO letter by DOE or by the contractor?

[TOM WHITAKER]

I don't think the contractor has prepared anything. I'm not sure the status of DOE. We have a, I haven't, I'm not sure, Joni. I'll get back to you on that one, okay?

[JONI ARENDS]

Okay. That would be great. And then, um, with regard to the QA— What slide is that? Slide number, what? 28 maybe.

[ROSEMARY ROMERO]

What page is that Joni?

[JONI ARENDS]

Um, fourteen. So where do they, the DOE, where's the DOE oversight in all of this?

[ROSEMARY ROMERO]

Oh, I'm sorry, I was looking at the wrong number there. Thank you.

[TOM WHITAKER]

So, Tom Whitaker again. Ah, what we have is, we do as part of the assessment of the Laboratory, there's the LASO quality assurance program. We actually have a full time QA person from the LASO program assigned to the project. Ah, we also have the LASO QA manager. I know she's completed an assessment, or audit just this past week. Is that correct, Rick? I believe, of the program itself. So there is DOE oversight of the project. Institutionally, we provide oversight as well as specifically on the project. And then, another important factor, is institution quality assurance division is separate from the project as well. And so they maintain their separate inspections as well. And so we have DOE oversight, the CMRR project QA-wise, as well as project management-wise and then there's also an institutional separate oversight of the project as well. So we have kinda both of those.

[JONI ARENDS]

So, what does "institutional" mean?

[TOM WHITAKER]

There's a— Well, Rick, why don't cha' talk about, and I'll let you guys talk about the institution here.

[Conversation off mike]

[ROSEMARY ROMERO]

You are on.

[RICK HOLMES]

This is Rick. Ahm, institutional in this case means, uh, the, the Laboratory itself. So I've employed [on] my team a quality manager, and she's hired a group of quality assurance professionals who are sent to me by the Laboratory's Quality Assurance Division. So they have independence. I cannot direct them to not do something. I can't direct them to do something. Also, then, the Laboratory itself, that division comes down and provides



oversight periodically to make sure that everybody is following the processes, and then, as Tom [Whitaker] said, the [NNSA] site office also has oversight as well. So there are many layers of quality to make sure we have the right checks and balances in what we deliver.

[ROSEMARY ROMERO]

We've got one follow-up to that.

[TOM WHITAKER]

Yeah, Tom Whitaker here. I guess, who knows, pretty obvious too, I'm kind of a quality assurance tool as well. Ahh, Herman Ledoux [NNSA/LASO Federal Project Director], my boss, has me out there on the project, co-located with those folks, conduct daily walkdowns, design review. So I'm kinda of another quality assurance tool as well to make sure all requirements are being met and followed. So we kinda have pretty extensive federal involvement and oversight.

[Few words may be missing as tape is being turned over.]

[JONI ARENDS]

You are saying you can't direct those folks?

[TOM WHITAKER]

I can't direct them. They, they report directly to the Laboratory's quality assurance manager.

[Pause]

[ROSEMARY ROMERO]

Hold the mike.

[Pause]

[JONI ARENDS]

And so, it doesn't say any thing up here about any DOE orders for building nuclear facilities. In this whole triangle.

[TOM WHITAKER]

We could certainly extend it and add to that chart, but all those exist.

[JONI ARENDS]

And where are the DOE orders which, which section?

[TOM WHITAKER]

Well, the whole point to the bottom of the chart, ya'know, all the orders I, I would've flipped this over and done it the other way, because you are building from the bottom up. But all the orders are, would be, another extension of the point of that triangle. So, below this you'd have Laboratory QA, you'd have the site office QA, and then you'd have the DOE orders and standards below that. So you could draw this with at least three more layers in the pyramid.

[ROSEMARY ROMERO]

Do you want to hold the questions for a little bit, Joni, and let me pass the mike around and then come back? All right. Other questions from folks? We'll come back? Scott?

[SCOTT KOVAC]

Scott Kovac, Nuke Watch. Seems we are missing a few slides that were on the presentation, or just some updates on some of the slides. I got a handout, uh, picked up a handout on the table over there from the September meeting that we had, and, um, so I'm wondering how the, ya'know, could I get a little seismic update on the CMRR? NF [nuclear facility]?

[ROSEMARY ROMERO]

Seismic update. All right.

[SCOTT KOVAC]

Or, is that coming later? er—

[TOM WHITAKER]

Yes, I'm Tom Whitaker from LASO. Kinda what we had last time, with status that they're completing all the seismic mapping in the nuclear facility. I think it was a question that you had. Ah, my understanding is, talking to the scientists, is they're planning to have a draft version out for review here in the next, ya'know, any day now, uh, a rough draft version to go through review. And so we're thinking to have a final product from their mapping exercises out here by the end of the spring. So that is proceeding as we kinda talked about last time. So, they have a draft out here, doing internal peer review, and then it'll go out after that. So, I assume here in the next two to three months that document should be complete.

[ROSEMARY ROMERO]

An update for that will be at the next meeting?

[STEVE FONG]

We can certainly put that on the agenda.

[ROSEMARY ROMERO]

Okay. Scott?

[SCOTT KOVAC]

So, I'm, one of the slides said the, uh, final report was due March '08. And so you are saying that final report has slipped a couple of months, maybe?

[UNIDENTIFIED PERSON]

Yeah.

[ROSEMARY ROMERO]

Oh.

[TOM WHITAKER]

The draft's coming out. So, Tom Whitaker. The draft is coming out now, and I think the final report will be out here in a few months, yeah. So, we're thinking, I'm understanding from the EES folks, the earth and environmental science folks at the Lab, probably end of April, early May, we'll have it out.

[STEVE FONG]

Thank you.

[ROSEMARY ROMERO]

All right.

[JONI ARENDS]

Ah, [inaudible, off microphone].

[ROSEMARY ROMERO]

Oh, hold on, Joni, let me get this to you.

[JONI ARENDS]

In a related question to the seismic: But what about the recommendations; how is the Laboratory implementing the recommendations for the probabilistic seismic hazard analysis? There are six recommendations in that report. And how are they being addressed?

[TOM WHITAKER]

Right. The, there's a recommendation section in there, ah, 'cause there's a lot of—there's still some uncertainty in some of the parameters. There's a [unclear word] which deals with seismic velocities, and also some issues on velocities in some of the geologic units.

So right now there is, there's no plan to update that at this point. People are discussing that, what to do. Ah, I personally think that's worthwhile to do, to reduce uncertainty. I think that'll reduce our seismic response for the site, if we reduce the uncertainty and do those recommendations. So, uh, I don't think there's any program dollars yet at this point. And I know, we, uh, I've talked to some of the LASO management folks about that. And so, that's on folks' radar screen. Nothing has been done at this point yet, though, Joni.

[JONI ARENDS]

Okay, but, specifically with the sixth recommendation, they talk about that there's no reliable VE [value engineering] data for the dacite. And the dacite isn't under that laboratory, under this part of the laboratory. So, ya'know, why are we proceeding with a very expensive project when we don't know about the seismic? Why is this moving forward?

[TOM WHITAKER]

I'm not the seismic expert who can answer that question, but what I do know is, what they've done for that dacite, that's kind of a name that they adopted, is they use a range of different seismic velocities, and a lot of those were based on the different Cerro Tolledial basalts. You'd have some seismic data on some of the velocities in the basalts. So in their analysis, [it's] pretty complex. We talked about that last time with Mike Salmon [Michael W., Team Leader, Probabilistic Structural Mechanics Team, Nuclear Design and Analysis Group, Decision Applications Division, LANL] or two times ago. They use the range, the high and low range of those velocities to bind any possible velocities that are in there. And that's the nature of the project. I mean, how far down do you go below dacite. How far do you keep going down? The thing is that dacite is not a real player in the seismic response for the site. It's an uncertainty, yes, and if you collect some specific data, we can reduce that uncertainty. But it's really, in the scheme of things, by the time it all gets, the seismic energy travels to the surface, it's really, that's not a real, really affecting layer. It's the near surface stuff, is what's causing the seismic issues, Joni.

[JONI ARENDS]

I, I don't that you can say that Tom.

[TOM WHITAKER]

I can show you on the report, for sure, Joni, yeah.

[JONI ARENDS]

I, I think—

[TOM WHITAKER]

So, we have an earthquake at the source, a depth, certain magnitude, certain direction, type of fault it was, and how much energy, and as it comes down from five or twenty kilometers, however down below, it goes through different layers of rock. It's like taking, y'know, a light beam through water, it get diffracted and reflected, and all that type of stuff, and it gets attenuated as it comes up to the surface. And so it changes. So, we can, we can, y'know, have a dis—, you can talk, a discussion [with] the seismic folks separately on that one. But the big player from our design perspective is the near-surface units.

[JONI ARENDS]

So when you're talking about the construction so far, what, what, what steps have been taken to address, y'know, a 50% increase in the G force of an earthquake as reported in the PH, PSHA, whatever it is.

[TOM WHITAKER]

Well—here, turn this other one on here?

We'll see if—

[ROSEMARY ROMERO]

He's going to use the lavalier, please. All right.

[TOM WHITAKER]

Yeah.

[ROSEMARY ROMERO]

All right.

[TOM WHITAKER]

So, okay, so we had the data from the PSH, the probabilistic seismic hazard update for the facility. All that information, and the seismic spectra that [were] generated from that has been incorporated into the final design for the nuclear facility. So the increased seismic hazards—

[JONI ARENDS]

This facility, Tom.

[TOM WHITAKER]

Correct. For the—

[JONI ARENDS]

Not the nuclear facility, this facility.

[ROSEMARY ROMERO]

Hold it up again. Okay.

[TOM WHITAKER]

The red lab is a PC-2 [Performance Category-2] facility, so it doesn't have as stringent seismic requirements as the nuclear facility. And this facility was designed to the code of record at the time. So, when we put the contract out to bid, we spec-ed out what all those requirements were for that facility.

[JONI ARENDS]

Without the 50% increase in G force? Correct?

[TOM WHITAKER]

Correct, because that data was not available at the time this contract went out, and also, when this building was designed. That's correct. However, it is a radiological facility. The biggest issue on seismic in these types of facility is life safety, getting people out of the building. And the International Building Code, that we are adopting, that code accounts for that. So that facility will perform it's life safety function.

[JONI ARENDS]

Okay.

[TOM WHITAKER]

And again, we're not taking—It's a radiological facility, so, material released would not be an effect.

[JONI ARENDS]

You're saying that it's, you can guarantee that there won't, if there is an earthquake, that will be no release from this facility? From the radiological lab?

[TOM WHITAKER]

I'm not an authorization basis person. I can't say that. But my understanding is the amount of plutonium, the maximum allowed in there, that's one of the drivers for having that small amount of material that, uh, that a release, the building could totally collapse, and all that material, that 9 point, er 8.4 grams plutonium, would not affect the environment.

[JONI ARENDS]

And that's Pu-238? or -239?



[TOM WHITAKER]

239, I believe.

[JONI ARENDS]

All right.

[TOM WHITAKER]

Equivalent.

[JONI ARENDS]

And, what about, what about other radionuclides associated with nuclear weapons production? Manufacturing?

[TIM NELSON]

So, when you categorize these buildings, what Tom's trying to explain—I'm Tim Nelson,

[TOM WHITAKER]

Sorry.

[TIM NELSON]

The difference between a radiological facility and a nuclear facility has to do with the quantity of plutonium-238 equivalent. Um, what that terms means is, if I use -238, I actually can't have 8.4 grams. Because the equivalency associated with the radiation exposure, if you will, outside dose consequence, is much greater for a smaller quantity. So you reduce the amount of Pu-239 equivalent, or the quantity of -238 has to be much, much less. It's based on the ratio of how much radioactivity there is relative to that isotope. So you could pick a different element that's not plutonium, um, and you'd have to adjust how much of that element you can have. Let's say, depleted uranium. You could have a different quantity of depleted uranium versus plutonium-239 versus plutonium-238. So when people talk about -239 equivalent, it's really to establish some kind of value, because weapons-grade plutonium has a[n] essentially a majority of -239 in it, and

that's why we talk about that, -239 equivalent. But, the question you are asking, relative to -238 would be a lot less that you could have in the building. So the offsite dose consequence is always below some number. Which is what Tom's talking about in terms of what the potential effects are to the public. And the "radiological facility" designation means that the effects to the public are essentially acceptable by the standards that are put out, and that's why there are only life safety code issues relative to a seismic event on the radiological facility.

[ROSEMARY ROMERO]

Before we go on, let me just check with other folks. Um, any other questions? We are happy to continue on this track, but any other folks want a chance to ask questions? All right. Jay, I think we are going to get the mike to you. Thanks Joni.

[ROSEMARY ROMERO]

Reminder, say your name please.

[JAY COGHLAN]

Jay Coghlan with Nuke Watch. I have two questions regarding, uh, Slide 7, and that's CMRR Mission Need Statement.

[ROSEMARY ROMERO]

So, Jay, one moment while we get to that slide. And folks have it in their handout also. All right. Thanks.

[Slide 7]

[JAY COGHLAN]

Now, from the perspective of the National Environmental Policy [Protection] Act, I regard the CMRR as a really strange creature. And given Congressional rejection of first the modern pit facility, and then the consolidated plutonium facility, CMRR has, y'know, become key in complex transformation for pit production, and arguably that's the most important facility that is now happening, uh, with the possible exception of the national

security complex at Y-12 [Plant, Oak Ridge, Tennessee]. But yet, CMRR is essentially grandfathered in from a NEPA [National Environmental Protection Act] perspective with the 2003 Environmental Impact Statement, and, my read of that 2003 environmental impact statement is that it set certain boundaries for all of CMRR, uh, but yet expansion is being considered under the complex transformation.

[JAY COGHLAN]

Now, in, for fiscal year 2007, the House and Senate Energy and Water Appropriations [Committee] did two contradictory things: the House completely cut funding saying it didn't want to prejudice Los Alamos becoming the permanent pit production facility; the Senate Energy and Water Appropriations Committee, this is to say, Senator Domenici, instead gave it full funding and ordered NNSA to study expanding CMRR's mission in scope. In context, that seemed to me direct pit production. My first question is, has that study ever been done? It's, first of all, it's not clear to me that it was legally required because, of course, appropriations became a mess and it ended up being a continuing resolution. But was that study ever done by NNSA?

[ROSEMARY ROMERO]

All right. Scott?

[STEVE FONG]

I'll try answering some of that. And I'm Steve Fong. Jay, you're right that there is the history of CMR[R] predates a lot of initiatives. We've been a project, and the need has been, uh, need for CMRR has been around for quite some time now. So, uh, there have been some initiatives that have come and gone, and, uh, but this is a key piece of infrastructure for the Laboratory. So our mission is based and rooted deeply within the Lab, uh, and in NNSA. If you go through a variety of NEPA documents, you could drive yourself crazy, because that is a lot of information, a lot of twists and ties of what the decision makers need to consider. But, yes, our basis is in the 2003 EIS and 2004 [unclear word] for our facility. Going through that. In terms of, uh, the Congressional language, yes, we have on several occasions been zeroed out by the House, and then our

budgets regained by the Senate, and sometimes, in cases, plus-ed up in some years, in past years.

[Slide 35]

[STEVE FONG]

In terms of your question regards to, was there a study done for considering what the alternatives are for, let's say the CMRR project for the future missions of the Laboratory and NNSA, that was done, but not by the project. That was separately funded. We were not a party to it. We were, uh, we received inquiries from that source, but that was managed directly out of, a headquarters organization to conduct that work. But it was outside the project. [Pause] I don't know if they ever came up with a final plan on that, or recommendations on that. Jay?

[ROSEMARY ROMERO]

Do you have a question [inaudible words]?

[JAY COGHLAN]

Yeah. You have a good memory. Same slide. Slide number 7.

[Pause]

[ROSEMARY ROMERO]

On mission?

[Slide 7]

[JAY COGHLAN]

No, it's Mission Need. Yeah, That's it.

[JAY COGHLAN]

Now, again, Jay Coghlan, Nuke Watch. If you look at that last clause, capabilities necessary, y'know, beyond 2010. As you all, no doubt— Well first of all, complex transformation explicitly states it's driven by the requirements for a responsive

infrastructure as per Bush's 2001 nuclear posture review. Congress has saw fit in the fiscal year 2008 Defense Authorization Act, to require the incoming president to prepare a new nuclear posture review in 2009. And at the same time, Congress required a new bipartisan commission to report on US nuclear weapons policies in general. But specifically, it's strategic force in the complex necessary to support that force and to report by December 1, 2008. My point is, y'know, the capabilities necessary to support current and direct stockpile work beyond 2010 may well change. Pretty much bound to change. So what's the rush now?

[ROSEMARY ROMERO]

Steve?

[STEVE FONG]

Jay—this is Steve Fong—the 2010 timeframe is basically the time in which the safety basis for the facility expires. And right now there is currently an extension of that safety basis being in consideration. So that's all that's tied to, is directly the end of design life for the CMR project.

[JONI ARENDS]

The old building?

[STEVE FONG]

The old building.

[ROSEMARY ROMERO]

Do it again.

[STEVE FONG]

The old building.

[ROSEMARY ROMERO]

The old building. Was there anything else to add back here? All right. I'm gonna get the mike here. Thanks Jay. And then I'll come back, there was some more additions to that? Okay.

[STEVE FONG]

No.

[ROSEMARY ROMERO]

No? Okay.

[ROGER SNODGRASS]

Roger Snodgrass.

[ROSEMARY ROMERO]

And there's a question— Thank you. Roger, please?

[ROGER SNODGRASS]

Sorry. *Los Alamos Monitor*. That's sorta leads into my question I think I've asked. This sort of line of questioning before, which is, that you're not sure that you are going to be able to go forward, you are funded year-to-year and so forth. You have an old building that you— that runs out, 2010. I think, the Defense Nuclear Safety Facilities Board has asked you to make plans for what you are going to do if you have to go back to that building. So, how, where does that stand now?

[STEVE FONG]

I'm Steve Fong, and I'm might actually ask Roger [Snyder] to chime in. But basically my response is that's outside the project charter on this. Uh, whatsoever. This, again this meeting's for this project. Um, I will, uh— Roger, wanna go ahead and take a shot?

[ROGER SNYDER, ACTING DEPUTY SITE OFFICE MANAGER FOR BUSINESS, ENVIRONMENT AND SECURITY, NATIONAL SECURITY MISSIONS, LASO, NNSA, DOE]

Okay. Roger Snyder. There is a life extension study underway to look at how we can extend the life and reduce the risk of that facility for whatever the intervening time is between now and that new facility. The last upgrade of that facility was done in the 90s to extend it to the 2010 time frame in a safe reliable fashion. We deem that as a success. And we are now looking forward what we can do to extend beyond 2010. There is looking at, looking at a wing reduction, more reduction, those kinds of issues, what we can do.

[ROGER SNODGRASS]

A "wing reduction"?

[ROGER SNYDER]

Yeah. Consolidating the area views within the facility today.

[ROGER SNODGRASS]

Can you tell me how many square feet are in there now and how many are being used?

[TIM NELSON]

Yeah, this is Tim Nelson. So let me try to explain a little bit. There's 570,000 gross square feet. So, when you talk about that, that's all the space in multiple levels. So the wing reduction activity actually has to do with not doing processing in these wings. And essentially what's being studied is whether or not we are gonna continue to do processing in the rest of the facility beyond this 2010 time period.

[ROGER SNODGRASS]

So, how much is available? How much space is available in the CMRR. This is Roger Snodgrass.

[TIM NELSON]

This is Tim Nelson again. So we can do the simple math and say there's essentially six wings in two-thirds of the 570,000 gross square feet. Uh, in laboratory space, it has to do with how much space is actually being utilized internally here, and it's a much smaller number. Um, and I'm only— Since you are a newspaper guy, I don't know if I should give you a number until I actually clarify it and make sure.

[laughter]

[ROGER SNODGRASS]

It might come back to haunt you.

[ROGER SNODGRASS]

One more question. And so, how many people work in this building?

[TIM NELSON]

Originally when we looked at the number of people that were going to move from this building over to the new facilities, we were looking at about 300 to 350 people. And so that's why the number associated with the Radiological Laboratory Utility Office Building is essentially 350 people. And then there's the additional training people who are coming from downtown.

[ROGER SNODGRASS]

Uh huh. But not a loss of 20 to 30%?

[TIM NELSON]

There has been a reduction of the numbers of people that are working in this, because of this area, not working any more. And that's been reduced.



[ROGER SNODGRASS]

So, it's less than 300—

[TIM NELSON]

I don't have an exact number.

[ROGER SNODGRASS]

—less than 300?

[TIM NELSON]

Right.

[ROGER SNODGRASS]

I'm pinning you down in another number. That's not fair.

[Laughter]

[ROSEMARY ROMERO]

Thank you. I think I have a hand back here. Just say your name.

[MARIAN NARANJO]

Marian Naranjo. Honor Our Pueblo Existence [HOPE] from Santa Clara Pueblo, and I don't know if this question is of interest to anyone, but it is a concern and interest to me. And, um, as you all know, the Pajarito Plateau is the aboriginal homelands of Pueblo people. And there wasn't, ya'know, laws to protect cultural sites, uh, in the beginning of the Manhattan Project. But now there are these laws, and with excavating this new, new facility, did you encounter any cultural sites during the excavation? Did you or construction folks know, do they know what a cultural site may look like? And did you consult with tribes before construction to actually bring in folks to check for cultural sites in this area?

[ROSEMARY ROMERO]

Let me see if there's, I think there's staff back here that might be able to answer this.

[TIM NELSON]

Steve's got it.

[ROSEMARY ROMERO]

Steve's got it. All right.

[STEVE FONG]

Thanks for your comment. And we understand the concerns. Thank you. Yes, there were cultural sites identified in the area of where our facility is proposed and is being construct[ed]. There's a flier on the table back in the rear room, towards the rear, that identifies and goes over what, uh, uh, what mitigation actions were done. It was an old homesteading site that was, uh, one of the precursors to the plateau. During the actual mitigation, we utilized a contractor that also had a, a Pueblo representative from San Ildefonso that helped, uh, guide through, and actually served as a liaison to, uh, some of the accord tribes or neighboring tribes of the— The staff, the workers doing excavation are all trained in terms of identification of what to look for and when to stop. Uh, there are also some other, uh, actions that are going on with the State Historic Preservation Office that we are not privy to, to provide information about. Um, at least publicly, because of constraints of release of information. And I'll probably get more in trouble if I keep on talking, but I think we do have a representative in the back of the room, a staff archeologist? That can probably—

[TIM NELSON]

Do you want—?

[ROSEMARY ROMERO]

Do you want—?

[ELLEN MCGEHEE, ECOLOGY AND AIR QUALITY GROUP, ENVIRONMENTAL PROTECTION DIVISION, LANL]

My name is Ellen McGehee. I'm the cultural resources team leader at the Laboratory. And, um, we've actually been working in that TA-55, TA-50 area, um, doing archeological site inventory work since— I've been working at the Lab since 1984, and, um, there are in the area of the project construction, there are no, there were no Native American, um, cultural resources encountered. They've only, we've only, um, been identifying, or working with homestead era sites. So, exact— right at TA-55 is where the Romero cabin, which has actually has been moved and it's back behind here, um, that's where it was originally located. And that was moved in 1984. But the most recent work is described in the handout and that's the McDougall Homestead excavation that we did. We worked very closely with the state, and we actually consult with the Pueblos and the accord Pueblos are notified when we do cultural resources work.

[MARIAN NARANJO]

[inaudible, off mike]

[ROSEMARY ROMERO]

Hold on. We'll get you the mike.

[MARIAN NARANJO]

I'm aware of what "consultation" is, and it's talking. But did you actually have cultural folks come up to make sure.

[ELLEN MCGEHEE]

I know that, uh, — What we do is we notify, written notification of all of our excavation projects. And if the tribal environmental folks are interested in coming up and looking, they are welcome to come. And so, for these particular projects, though, we did have some tribal monitors who had been working on another project, um, from San Ildefonso Pueblo and also from Santa Clara who are actually helping with us with the McDougall Homestead excavation. So we had, um, we did have tribal folks on site. But it was, it was

actually more of an informal relationship. But, um, they did have the opportunity to formally come and visit if they chose, and we didn't have any site visits.

[ROSEMARY ROMERO]

I'm gonna— Thank you. I'm going to do a time check here just to make sure— Scott, you had given some time up earlier. If you're okay, what we were doing was taking the questions that were specific to the project and to the presentations, but you also had submitted questions that, they're lengthy. We wanted to make sure we give them enough time. How would you like to proceed, is we can get to those now, take a look at them folks. Have a handout that was at the table. Maybe you could pull out some of those that were a priority to look at. And there's some, we've got, thank you Steve. [pause]

[UNIDENTIFIED PERSONS TALKING OFF MICROPHONE]

[Inaudible.]

[Slide 35]

[ROSEMARY ROMERO]

I'm looking for some feedback on this.

[SCOTT KOVAC]

It seems that we're, um, covering, it seems like we are covering, I'm Scott Kovac with Nuke Watch, and it seems like we are kind of inching into the questions we submitted, so maybe we should just get started on them.

[ROSEMARY ROMERO]

That was my sense also, was that we were heading in that direction. So let's look at those, if folks don't mind. There was, y'know, time and energy that was spent submitting them, the thoughtfulness that went into these, and the other presenta— the other, um, questions that are in here. So, what we've got a start of some of the answers. Steve, can I turn to you on this?

[STEVE FONG]

Uh yes. This is Steve Fong. Hi Scott. We've got— Thank you for your questions. We received those. And I looked at those. We all have. And we've been [looking at] those Scott. And we need a little bit more discussion here, because we uh— I wanna answer those that are probably of most interest to you. I just want to point out that there are a lot that— and we had this discussion when we under settlement discussions, whether or not we should combine this with NEPA or whatnot. There have been a lot of questions on NEPA, uh— I'd rather not, you are supposed to use those forms for NEPA. But we could answer those. Uh, some of your questions were speculative, and I thought, “yeah, those are entertaining, I'm not sure we'd ever get to an end point.” We could go on and on about those and some of your questions were speculative. Some of the questions were outside the scope. So, my proposal is, I could walk through those that I know that are of factual nature. We could probably go through those real quick. Or, if you want to pull up some that are most dear to you, we could talk about those.

[ROSEMARY ROMERO]

Okay.

[SCOTT KOVAC]

Scott here. That sounds like a great idea. Why don't we go through the ones you can answer quickly and then we can debate the other ones, talk about the other ones after, if we have time.

[ROSEMARY ROMERO]

Okay. Thank you.

[UNIDENTIFIED PERSONS TALKING OFF MICROPHONE]

[Inaudible conversation about microphones]

[ROSEMARY ROMERO]

And everybody's got the— Deb [Hall] was kind enough to pass out the sheets here, if anybody's missing 'em, please raise your hand. All right. Okay. Joni [Arends], did you need a copy?

[RICK HOLMES]

This is Rick. I guess one of the advantages of being the contractor rep you get to do what the department wants you to do. So I get to take the first crack. I'm on question 1c, which is, "What is the breakout of the FY'09 request between phases A, B, and C for both design and construction?" Um, what we did with the, I'm gonna talk about the '08 money first. What we did with the '08 money was we fully funded the last of the red lab facility contract and design work that we had already been authorized, which was roughly 13 million dollars. Of the balance that we got available out of the 75 nominally, for '08, approximately \$30 million dollars will be dedicated towards the red lab equipment installation activities. We have to let fabrication contract, start fabricating, pay those contractors, those types of things. And the remainder will be to continue the design activities and safety-base development for the nuclear facility, both the equipment and the facility itself. There's some prototyping activities that we are going to do gloveboxes, and things that just answer questions to integrate safety with the design.

[Pause]

[JONI ARENDS]

Why do you need— Joni Arends, CCNS. Why do you need to have a special fabrication contract out there for things that are basically used throughout the complex?

[RICK HOLMES]

The— This is Rick. The special facilities equipment are gloveboxes. Most of them are custom designed. They are specific to the piece of equipment that is going to be held inside, they are specific to the operations that are gonna be performed in that glovebox. They are not something you go to the glovebox catalog and buy. So you have to go to

somebody who knows how to make these, knows how to make them of the right pedigree, and so that's why it's a special fabrication contract. That's what that means. Additionally, some of those are analytical instruments where you have to— they are singular, you can order it from the instrument manufacturer, but it's not something you go to the store and it's readily available on the shelf because they are very specific to the activities you that you use that instrument for.

[JONI ARENDS]

My question goes to the fact that so many times when special equipment is needed at the Laboratory, that there's mess-ups, that there's problems that, that kind of equipment. My question goes to the fact that there's been many reports that have been written that have said, "Why doesn't the Laboratory take things off the shelf? Why aren't they using things that are manufactured that are, that already meet specifications? Why is so much energy and time and resources put into equipment that needs to be specially done? That's the purpose of my question, sir.

[RICK HOLMES]

Okay. And this is Rick. And this equipment, where we can buy commercial items, we can and do. Uh, my experience comes from a lot of large construction projects in high hazardous operations, and in a lot of cases it is not something that you can just go buy off the shelf. You need to find a qualified company who does this type of work to go do it, and in the red lab itself we are talking 30 to 40 of these items that we have to go buy. And in the nuclear itself, we are talking about 300 in total by the time we are finished. And the capacity in this country to make gloveboxes of this type, uh, and they are not specific designs, 'cause if you knew me, I go for the simpler approach, just like you'd suggested, because that's how you get done and get done right. But these are items that you have to go to somebody who knows how to make it and do it right without a lot of bells, and extra bells and whistles to it, which I think was kinda implied in the question.

[ROSEMARY ROMERO]

All right. Other questions that you were answering, just to get us back to the list of questions, please?

[RICK HOLMES]

Okay. Um, still, I'm still Rick. On 1d, it says "Cost for the CMRR have risen from, it was listed as 600 million in '04 to over 2 billion now. What's the justification?" When I, when I got the project in late of '06, the project had not updated the cost of the project since the '04 time frame. And we looked at the quantities of materials that are in the job itself, the yards of concrete, the number of tons of structural steel, the miles of conduit and cable, et cetera that are in the job, and the cost of those materials which has escalated dramatically over the last several years. And when you add all those up and apply normal productivity factors for installation of concrete et cetera, that leads to the cost that has been stated by Tom [Thomas P.] D'Agostino [Undersecretary for Nuclear Security, NNSA], of approximately two billion dollars for the job. Uh, some examples of just some of the changes that have occurred as the design has evolved [are as follows]. Originally the walls for the nuclear facility were going to be three feet thick. And as part of that response to the seismic study, the walls are now four and a half feet thick. The base mat for the facility has grown from five feet thick to ten feet thick. Uh, and that equals a lot of concrete and a lot of structural steel and a lot of time necessary to do that concrete properly. So, the short answer, and certainly there's a lot more depth to this, is that the quantity of materials that are in the facility and the cost of those materials have both grown in number and the cost per each of those commodities has increased and that leads us to where we are today.

[Pause]



[RICK HOLMES]

Ah, on 1e, “What is the current earliest completion date estimated to complete the new facility?” Uh, I think that would be, and this is funding dependent, cause as we’ve talked about before, large projects like this are at the, uh, at the whim of the annual funding from Congress, but right now that would be about 2016.

[RICK HOLMES]

Uh, 1g, “We believe the CMRR nuclear facility was closer to 200,000 square feet. Is this a typo? What is the total square footage of the CMRR new facility?” Again, we’ve said that the building itself is approximately 287,000 square feet, and the quantity of laboratory space is approximately 22,500 square feet.

[RICK HOLMES]

1h, “Is CMRR still being designed to handle large vessels? Does its mission still include cleanout of large vessels? If so, have there been changes? If not, what changes have been made?” My current set of requirements for the facility does still include handling large vessels.

[Pause]

[ROSEMARY ROMERO]

You’re still on. And I’m not seeing any questions from other folks.

[RICK HOLMES]

Okay.

[Handing off microphone]

[STEVE FONG]

—coordination of this, I guess. I think we went through your item 2 in detail. We went through the seismic concerns. I think we’ve captured those. I’m gonna skip those on through. I’m gonna skip NEPA for now. There are some in NEPA that are relatively straightforward, and then some of them are relatively complex.

[JONI ARENDS]

What about 1? We need more of an answer about Pu-238, the last question?

[STEVE FONG]

I'm sorry. What number?

[JONI ARENDS]

1i, with the Pu-238 question. And then also, we need more of an answer to 1h about does the mission still include cleanout of large vessels?

[STEVE FONG]

I actually don't have 1i in my handout.

[Inaudible words between Steve Fong and Tim Nelson off microphone]

[TIM NELSON]

So, um, this actually, we've talked about this a few times before, this is Tim Nelson—

[TRANSCRIBER]

Thank you.

[TIM NELSON]

Relative to -238, as we all understand, if I take a piece of plutonium, it's gonna have a variety of isotopes in it. It's not 100%, point 000 percent pure.

[JONI ARENDS]

[Starts talking without microphone]

[ROSEMARY ROMERO]

—so we'll be able to capture that.

[JONI ARENDS]

This question is specifically, is any work still planned for Pu-238? Meaning the battery work. We are not talking about plutonium equivalents.

[ROSEMARY ROMERO]

And you got—that that was Joni Arends.

[TIM NELSON]

So if I look at -238 work relative to PF-4, which is where the majority of the -238 work is going on now, um, that's actually, I would say, beyond the scope of the discussion, but as far as I know, that will continue to be going on at PF-4. There has been in the past work done on -238 in CMR in terms of analytical chemistry. That -238 work is to be moved into the -238 area of PF-4, and essentially try to consolidate all the -238 work into one area. So, I interpret the question initially to be, "Are we gonna do -238 work in the CMRR, either nuke facility or the radiological laboratory, and the idea is not to do it in those buildings because the hope is to move that over to the -238 area of PF-4.

[ROSEMARY ROMERO]

Add Steve, do you want to add—?

[STEVE FONG]

Nope.

[ROSEMARY ROMERO]

Okay.

[STEVE FONG]

Nope.

[ROSEMARY ROMERO]

Thank you. Any others that leap out at folks that we could pose? Questions? Any that jumped at you, others?

[STEVE FONG]

Joni, did you have something again in seismic? Did I hear you right? Re-openers? No? Okay. I'm gonna skip quickly for now.

[ROSEMARY ROMERO]

[Inaudible, passing microphone]

[JONI ARENDS]

I think that there's some very severe issues with regard to the seismic. And I don't think that they were properly addressed in this meeting this aft—, this evening. And I think that we need to sit down and talk seriously about the seismic risk. If you look at what the Laboratory thought in 1999 about the seismic faults in the area, and you look at what was presented in the 2006 draft LANL SWEIS [Sitewide Environmental Impact Statement], there's a substantial amount of new information about the seismic issues. And then the fact that this new report came out and said that there's a 50% increase in the G force of any potential earthquake. That's significant. And there needs to be a larger discussion rather than just saying, "Oh, I'll get back to you."

[JONI ARENDS]

I'd like to submit this into the record for tonight.

[ROSEMARY ROMERO]

Joni, I will note, before I turn to Steve [Fong], is the next meeting, when you talk about a longer discussion needs to occur around the seismic update, and just a longer conversation, I note that there is still a report that needs to be completed and then brought forward. So, is this one of those next meeting discussions that we spend a bigger chunk of time on? And I'm looking to others for this. But there's a report that needs to be done.

Maybe spend a significant part of the next meeting on— I'm just looking for some direction.

[JONI ARENDS]

[Inaudible]

[ROSEMARY ROMERO]

Okay. So,

[JONI ARENDS]

We can't wait that long.

[STEVE FONG]

Okay, your request is for a meeting with us. We'll consider that.

[ROSEMARY ROMERO]

Okay. All right. I want to make sure that we are on track. Other questions? Other things that you see that you could answer?

[Slide 37]

[STEVE FONG]

Well, I'm rolling through Scott's questions. And I jumped over NEPA, but we'll try to get back into there again. But number 4, DNFSB [Defense Nuclear Facility Safety Board] concerns, a, "Is the ventilation system designed active or pass—to be active or passive?" Right now, the new facility is actively ventilated and categorized as safety significant. "b," "Is the fire suppression system designed to be safety significant?" The answer to that would be "no." Uh, currently, the fire suppression system is categorized as safety class, which is a higher category than "safety significant." "Is lightning protection safety class or safety significant?" Safety class? Is that safety class? It's safety class. At this point.

[STEVE FONG]

Your next couple of questions deal in the area of air permitting. And the project is always challenging our permit writers because of our changing— changes in funding and what we are expected to receive, what we receive, and when we receive it. And so, it's always a challenge to try to throttle what kind of work we're gonna have for the next year. So a lot these questions are funding-dependent. But I'm gonna let Bill [Blankenship] go ahead and try to answer, uh, a and b under the guise of, y'know, a lot of this is funding-dependent.

[BILL BLANKENSHIP, ECOLOGY AND AIR QUALITY GROUP, ENVIRONMENTAL PROTECTION DIVISION, LOS ALAMOS NATIONAL LABORATORY]

Uh, yeah. This is Bill Blankenship. As far as the next permit application: our goal is always to turn it in a year before the start of construction. So the next application to the NMED [New Mexico Environment Department], this will be to incorporate the nuclear facility into the existing permit we already have for the red lab. Um, it takes the group about three months to prepare the application. And as Steve [Fong], was kinda hinting at, I haven't been given the go-ahead to start working on that yet. So, I think the earliest that an application would be turned in would be the fall of this year. And the goal would be to have that permit issued by the fall of 2009. So, that's the earliest. And that could slip, depending on what Steve [Fong] asks us to do.

[BILL BLANKENSHIP]

Um, the question on Title V: we are turning in a sitewide Title V renewal in April, but that will not include the red lab and it certainly won't include the nuclear facility. The way the Title V reg works, you actually have a year after a new facility starts operation to modify your Title V permit. So, obviously, the red lab has not started operation. It won't, I think I heard 2010, 2011, something like that. So after the start of operation, during that next year, we'll prepare that Title V mod and turn it in. Way down the road, 2016, 2017, after the nuclear facility starts operation, someone, I don't think it'll be me, will turn in that modification to the permit. So anyway, in a nutshell, I think you already know this. New Mexico has a two-permit system. You get the NSR [new special recovery]

construction permit first. Then you modify the Title V. Real quickly, the Title V action is very, very minor, compared to the new source review permit. The mod to the Title V permit is simply to incorporate the NSR permit conditions you already have, roll it into that comprehensive permit.

[ROSEMARY ROMERO]

Steve, you know?

[STEVE FONG]

Thanks Bill [Blankenship].

[JONI ARENDS]

Yes, I have a question. Joni Arends with CCNS. So in the presentation earlier, you describe having to remove 30 feet of material for the nuclear facility. And so, will you need to get a construction permit in order to do that work? Or, what is the—

[BILL BLANKENSHIP]

Ya'know actually, um, oh—Bill Blankenship—I'll give you the answer real quickly, but actually the, that issue comes around the country with all air agencies and new source review of construction permits. So, different states have wrestled with it, EPA has wrestled with it. Our particular state kinda falls in line with other states and EPA. And they actually have a written policy that you can download from their website that defines what the start of construction is. And it is not just the common-sense term. Any earth-moving activities, clearing of land, um, and specifically the digging and the lowering of the grade you are speaking of. You don't need your air construction permit to do that. Basically you need it before you install anything of a permanent nature, including the foundation for a building. So it's anything of a permanent nature. Before that happens you need your NSR construction permit.

[ROSEMARY ROMERO]

Okay. Right. I wanna make sure that we have enough time to cover a couple of other topics. And probably the last one, Steve.

[STEVE FONG]

Okay. Uh, just a statement also. I think probably in the next meeting, we'll have, I think it'll probably be ripe, we'll know more about budget, where we're at. Probably an update on air permitting, and if we're gonna actually take an action and actually submit a permit. We should probably update you at that point in time.

[ROSEMARY ROMERO]

All right.

[STEVE FONG]

Okay. You want to take it over?

[ROSEMARY ROMERO]

I do. Thank you. Just to make sure we have enough time to talk about the topics for the next meeting, so if folks don't mind, let's just do a little switch here, just to make sure I get, for the next meeting. Timewise, is, I'm noting that there's, probably for the next meeting there's going to be the seismic update. But separately from that, I understood that there would be a meeting that was organized to talk about the seismic issues that have come up at this meeting. I'm looking to Steve [Fong], Joni [Arends], and others for, um, this is separate from the next meeting. But the air permitting, um, issues, there'll be more information at the next meeting around air permitting, the air permitting update. And then, the seismic update. And then other issues to be discussed that may include, probably some of the questions that were in here? I'm looking to all of you for direction on that. So to make sure that we are covered for next time? Other issues to be discussed? Topics please?



[Pause]

[ROSEMARY ROMERO]

I know this is a hard question.

[PENELOPE (PENNY) McMULLEN, LORETTO COMMUNITY]

Penelope McMullen, Loretto Community. There are lots of questions here that we haven't dealt with yet. So, part of what goes in next time depends on how we finish this. So it seems to me to make more sense to deal with the rest of these questions before we decide on the topics.

[ROSEMARY ROMERO]

Thank you. And we'll notice that there's a whole long list of questions here that would take us into several hours, so, it seem that would, your suggestion, you're suggesting is perhaps that anything that's left over that we don't get to this evening could go to the next time to continue the same type of informational Q & A, or not?

[PENNY McMULLEN]

Well, yes, if we don't get to it, but also we could, definitely where they're not finished.

[ROSEMARY ROMERO]

All right. Scott, I'll turn to you since this was the list of questions that you, um, had presented. Are there other questions on here that you'd like to bring up as a, from a priority perspective that you'd like to target since you're the one that submitted these?

[SCOTT KOVAC]

[Inaudible]

[ROSEMARY ROMERO]

It was suggested that there might be a little bit of time to tackle a few more this evening and then whatever is left over is for the next time. So are there any that are on here that you would like to see if we could tackle this evening, with the time that we've got.

[SCOTT KOVAC]

Yes. Scott, with Nuke Watch. Yes, how about, "What is the life expectancy of the CMRR-NF?"

[STEVE FONG]

That's easy. Fifty or sixty years. That's what we are designed for. Probably last much longer with maintenance and upkeep of the facility.

[ROSEMARY ROMERO]

So what we did was, staff had actually pulled out the priorities, and now we are kinda hitting the next here.

[SCOTT KOVAC]

And I guess, while we are at it, what would the expectancy of the red lab be? Steve?

[STEVE FONG]

Steve Fong. Same. It's fifty.

[ROSEMARY ROMERO]

Anybody else? I'm just picking on Scott just because he's got the list here.

[SCOTT KOVAC]

Ya'know, it would be helpful maybe for next time, Steve, would be to just kinda notate on my list of questions which ones you thought were interesting and which ones you thought were not, which ones you thought were outside the scope. Also, just kinda help us out here. I mean—

[JONI ARENDS]

I'm totally frustrated. [Continues, inaudible words, speaking without mike.]

[ROSEMARY ROMERO]

Hold it.

[JONI ARENDS, WITH MIKE]

I'm sorry Scott [Kovac]. I just have a chip on my shoulder this evening. I, we've put a lot of time into putting these questions together. And the fact that the presentation with all the photos and everything took a long time, and I've asked a lot of questions tonight, because this is something that the Laboratory and the Department of Energy agreed to. So we need to have all of these questions answered tonight. There's too much going on for us not to have these questions answered this evening. If we need to reschedule, if you thought at this time, when you saw our questions, and you thought that we need—that you needed more time, you should have told us. You should have said, "We need three hours instead of two hours." We should have started at 5:30 if you wanted to leave at 8:30. We're here for information. This is part of the agreement that we made in September 2005. Hold up your side of it.

[ROSEMARY ROMERO]

All right. And to remind folks, I'm sorry, Steve [Fong], I'll just jump in this, there's, um, there's the presentation on the project update which is a must. And I think we got through that in about thirty—thirty-five minutes. I think we were trying to save some time there. So, we've got time to look at some more questions this evening. We've got a little bit of time. We know what we're doing next time. It's also, if there's any questions left over

that are pressing, I think Scott [Kovac] noted, from an interesting perspective, um, for the next time also, so that there's an opportunity at the next meeting to continue the conversation. But we've got some time now for more. Others that leap out?

[PENELOPE MCMULLEN]

By more, you mean some of these? If we've got some time.

[ROSEMARY ROMERO]

Let me just say this. We still have some time to continue to work through some of these questions, which is what I think you had suggested earlier.

[PENELOPE MCMULLEN]

So, that's what we are ready to do now?

[ROSEMARY ROMERO]

[Inaudible]

[PENELOPE MCMULLEN]

Uh, in other words, we are not on next meeting's topics now. We're on this now, right?

[ROSEMARY ROMERO]

To affirm where we're at, so there's no confusion: [It] seemed to me that where we were heading was, we weren't gonna have sufficient time. I know there's some frustration about sufficient time—but I was noting that for the next meeting there was probably another opportunity to continue to look at these questions and have that conversation. So there's another opportunity to hit these questions. Earlier folks agreed that, you were going to look at the priorities, those that leaped out, and tackle those first. I think everyone said let's go with those first. So we tackled, those, what we are looking at as priorities, and checked in with folks. So there was, that was one of the ways that we looked at answering the questions. As from a priority perspective. Now, where we are at is, there's still a long list. The suggestion was that perhaps, with time, with the limited

time that we had, tackle a few more, which we've done. And then next meeting, to continue the conversation of— to update, CMRR update, and then any of the questions again that are here—Scott has—here. And then what Scott [Kovac] has suggested is, for staff again to look at these and pull out some of those, again, that may have, I hesitate to say “priority,” but quickly, “interesting” I think were your words, Scott. Um, so I'm looking to you for some of that direction.

[SCOTT KOVAC]

Actually, when I raised the “interesting” part, um, and the “not in the scope of these hearings,” I, I was requesting that when, if, if, when I submit some questions, if we could get like a little update on which ones weren't gonna be answered and which ones were, maybe before the meeting, that might solve a few problems or questions.

[STEVE FONG]

This is Steve. I, and I hear you Scott [Kovac], and that probably would help facilitate next meetings. So, we'll try to do that. Bernie [Pleau] also wants to—

[BERNIE PLEAU, INTERGOVERNMENTAL AND EXTERNAL RELATIONS, OFFICE OF THE MANAGER]

I'm Bernie Floyd, public affairs for the [Los Alamos NNSA] site office. Um, I know that in the past you've submitted questions through me and we've gotten the written response to you prior to these meetings. And if that helps facilitate this for the next time— unfortunately, I wasn't contacted this time—but if it helps facilitate this for the next time, or subsequent meetings from that, if you get your list of questions to me ahead of time, I'll make sure they get to Steve [Fong] and we get the answers to as many questions as we can prior to the meeting, if that's all right with you Steve. We've done that in the past. I know that we have. And, uh, I think that that will probably will give you some, at least an insight into what's been answered already, and then you can bring up the subsequent questions at the meeting. Is that— Not for tonight, I'm sorry. Ya'know. Okay?

[PENNY McMULLEN]

Penny McMullen, Loretto [Community]. The reason I asked, “Are we doing this now?” is that I want to do this now.

[ROSEMARY ROMERO]

And the response has been that there’s a couple ways that we’re going to proceed, is, um, we prioritize this evening. We allocated the time as best we thought was gonna work for folks in giving these questions, um, a certain period of time. It’s been suggested for the next meeting. So we’re at the end of this time—it’s been suggested for the next meeting that we look at the questions that were not responded to, perhaps. I think, what has been suggested has been to give a more formalized response to those prior to the next meeting. Include some of these updates. So, for this meeting, no, not going any further because there’s been a request to respond to these in writing, is what I understood.

[PENNY McMULLEN]

Okay. So, you’re really gonna respond in writing? and how soon?

[ROSEMARY ROMERO]

All right. Question?

[PENNY McMULLEN]

Because we’d kinda like to hear some of it, [be] thinking about some of these, especially for me, number 1a, b. A and b is really important.

[STEVE FONG]

[Starts to talk]

[ROSEMARY ROMERO]

Before you go down that road Steve [Fong], let me just remind folks is, we tried to pull out the, the question was, “Which are the ones that can be answered quickly, or in depth?” So we started the conversation I think earlier with, “What can we pull out

quickly and answer those.” And I’m looking to Scott [Kovac] who had nodded earlier. So, we tackled those as, uh, as we moved along. There’s still others that we didn’t get to. But I was checking in, I checked, I did a time check earlier to see how much time we were going to be needing, and it looks like we will definitely need more time, but it also sounds like a response in writing may be helpful to facilitate that discussion. So for this evening we are not going to go much further than that. Because that’s what—I, I’m looking to, um, and I had checked in with Scott [Kovac] on the time on this. So, it’s a tough one, but I’m looking to staff for the next time, is a response in writing to help facilitate that response.

[JAY COGHLAN]

Could, in amendment, though, um, it seems entirely reasonable to me, me being Jay Coghlan, Nuke Watch. It seems entirely reasonable to have these unanswered questions responded to in writing within a month. Uh, cause that next meeting is something like a half year out. Is it not? So, I think a little speed here is of the essence.

[ROSEMARY ROMERO]

Okay. Thank you.

[PENELOPE MCMULLEN]

That’s my point.

[STEVE FONG]

This is Steve. Let’s see how many we can through. How about that?

[An inaudible comment off mike.]

[Laughter]

[STEVE FONG]

You too, Jay. But 1a and 1b, maybe we can—

[ROSEMARY ROMERO]

Let's tackle those right now? Folks are amenable to staying a little bit longer? Let's tackle 1a and 1b. Oh, good move, and then you handed it [the microphone] to him!

[TIM NELSON]

Ahh, this is Tim Nelson. All right, let me read the question a little bit. [Pause] So there's a dialog. Essentially, I'm gonna try to paraphrase a little bit. Scott [Kovac], correct me if I say something wrong. Essentially a dialog on question number one has to do with RRW [Reliable Replacement Warhead] program. And the future of that is suspect at best. Does that capture the statement correctly?

[Laughter]

[UNIDENTIFIED PERSON]

Sorry.

[TIM NELSON]

Sorry. Um, and, in general, if I paraphrase this, if we weren't gonna make pits any more, or if the program to make pits dissolved, why would you still build CMRR? I'm gonna say, "nuke facility." Is that reasonable? And the reason actually gets back to the statements that Rick [Holmes] had made relative to the other programs that are going on. So, if you looked at nonproliferation programs, looked at environmental programs, ahm, essentially all nuclear programs at the Laboratory would still continue in some fashion. Even stockpile stewardship, and this is why Steve [Fong] said there is some speculation in the answers to these questions. All right, so even stockpile stewardship, we would assume would continue in some fashion, that we are going to do pit certification, surveillance, uh, to verify the stockpile, and stuff like that. You need analytical chemistry and materials characterization to do that work. So you would essentially want to build the CMRR nuke facility to essentially replace the facility capability that allows those capabilities to occur.



[TIM NELSON]

Okay. Uh, I think 1a and 1b are—

[ROSEMARY ROMERO]

What'd ya' get those?

[TIM NELSON]

Uh, the same. Let me check.

[ROSEMARY ROMERO]

Okay. [Pause] Oh!

[JAY COGHLAN]

That deserves a follow-up question.

[ROSEMARY ROMERO]

All right.

[TIM NELSON]

Okay.

[JAY COGHLAN]

So, Jay Coghlan again. Ahm, but for those other missions, you said, pit surveillance and the like, um, I'd sure like to know what other facilities that could possibly go to at Los Alamos. Uh, because, I think the logic is a little faulty. It presumes that CMRR absolutely has to be built. That's not clear to me. Surely there's other facilities that can substitute for that. Other than a

[Few words missing as recording tape is being changed.]

[TIM NELSON]

Um, I think what I heard you say is, if I looked across the Laboratory site, are there other facilities that could do the capabilities that the CMRR provides in terms of analytical chemistry and materials characterization, rather than build a new facility.

[JAY COGHLAN]

Including PF-4 [the existing plutonium facility].

[TIM NELSON]

Um hm.

[ROSEMARY ROMERO]

Okay.

[TIM NELSON]

All right. So if I looked at PF-4, and this is why we are in all sorts of speculation, right? If I looked at PF-4, that is essentially the only facility that has the equivalent security categorization and hazard categorization to the new facility. And so you, in essence, to get back to the speculation, we would have to assume that some programs, a substantial amount of programs, 22,500 square foot of programs, or something slightly less in terms of capacity, would be moved out. And I, I'm not aware of any of that size of movement of programs that could potentially go out of there.

[ROSEMARY ROMERO]

I'm gonna have to jump in here for just a moment. Is, this is a formal, a formalized public meeting, not a hearing meeting, but it's also recorded, and so we've got a time constraint with the contractor who has recorded these meetings. So, my, though we'd like to stay longer, that's actually impossible to do, just given the constraints of having the meetings recorded and how they are organized. So, I'm noting that we've gone a little bit over, just to try to get as many questions as we could answered, and I, understand the frustration. So my sense is for the next time, there's a couple of things that will occur in between

which are around an additional meeting that will occur. And, Steve [Fong], I will look to you and others to figure that out. There's the update, there's the air permitting, there's the request to take whatever questions were not answered and try, and to respond to those in writing and bring those the next time. Perhaps shortening the meeting the next time with less presentation and more time for the questions that are, that need to be answered. So it would be a shorter update on the project and longer discussion on the questions that have submitted. But I am looking to you all to, that that will work the next time, is to spend a lesser time on the presentations and a longer time on any questions that are submitted.

[ROSEMARY ROMERO]

Yes ma'am?

[JONI ARENDS]

Thank you. One amendment. We would like to have the answers to the questions within 30 days. We were asked to submit our questions 30 days in advance of this meeting. We would like a reciprocal action. Thank you.

[ROSEMARY ROMERO]

All right.

[STEVE FONG]

I just wanted to add some final words. Uh, I understand frustrations. I think we are doing our best to answer as many questions as we can in the time frame that seemed to work in past meetings. Scott [Kovac], I'll be in contact with you in terms of your questions. See what we can do to facilitate those. Maybe having, enter into discussion about actually moving up the next presentation. 'Cause we are supposed to have these twice a year. And maybe the next one could be actually a little bit sooner. So we can get to some of these, so they are still ripe. It's a possibility. Ahm, but we'll do our best to communicate. And try to provide meaningful discussion, project status, and try to answer as many questions as possible. So, thank you for coming.

[ROSEMARY ROMERO]

Great. Thank you. I've got a mike here. So, thank you all again for coming. It, it, there was a tremendous amount of information that was exchanged, and there'll be a tremendous amount the next time. So, in order to accommodate the amount of information that needs to be provided, you will find out soon if this next meeting could be moved up. It sounds like it's, you're heading in that direction, is you will be moving up sooner sometime. Yeah. Possibility. All right. Thank you all for coming. Please make sure that you signed in clearly and [sound on tape ends here].

[The meeting was adjourned by Rosemary Romero.]

I hereby certify that the foregoing is a true and correct transcription of the audio tapes from the above-captioned meeting.

Morrison Bennett

Transcriber

Transcription completed April 11, 2008.

## *IV. Slides*

# Chemistry and Metallurgy Research Facility Replacement (CMRR) Project

## Welcome

## CMRR Project Update

Los Alamos, New Mexico  
March 25, 2008

## Rosemary Romero, Meeting Facilitator

# Agenda

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6:30	Welcome Ground Rules Background and Purpose Briefing on Public Comment Provisions Introductions	<i>Rosemary Romero</i>
6:45	CMRR Project Overview & Update	<i>Rick Holmes</i>
7:00	CMRR RLUOB Project Update	<i>Tom Whitacre</i>
7:30	Presentation Question and Answer Settlement Party Pre-Submitted Questions Additional Questions, Comments	<i>Rosemary Romero</i>
8:15	Requests for Topics, Next Meeting	<i>Rosemary Romero</i>
8:25	Thank You and Adjourn	<i>Rick Holmes</i>

# Ground Rules

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- Listen respectfully
- Share the airtime with other participants
- Wait until you are called upon to speak
- Turn cell phones off or place on mute
- No personal attacks
- Please speak slowly and clearly
- Always speak into a microphone



# 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 included
  - 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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- March 2008 Meeting Agenda Suggestions
  - Metrics related to quality control program, audits, assessments, inspections; identify any problems associated with these processes
  - Preliminary Design
  - Budget and schedule update
  - DOE/NNSA direction on mission
  - Construction progress

# Chemistry and Metallurgy Research Facility Replacement (CMRR) Project

## CMRR Project Update

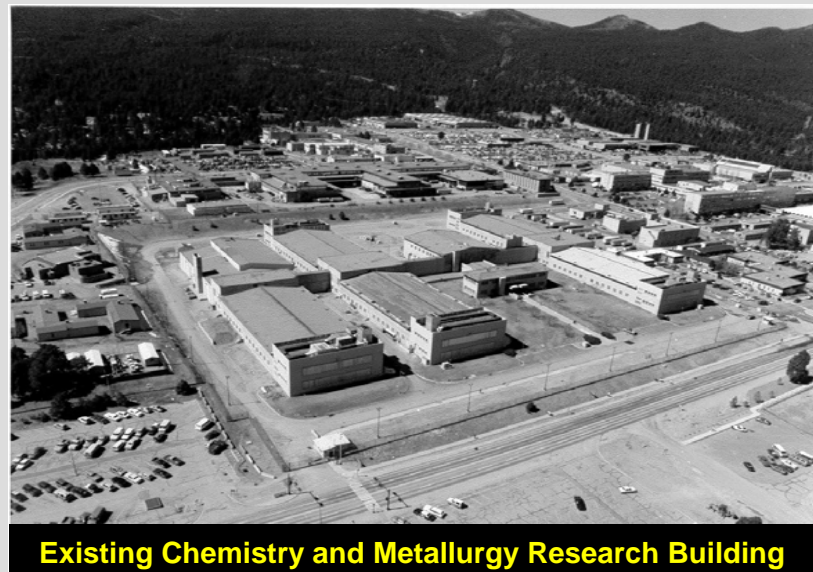
Los Alamos, New Mexico  
March 25, 2008

*Presented by*  
**Rick Holmes, LANL**  
**Tom Whitacre, LASO**

# 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”**

1949 CMR Construction Site



# 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 CMR Building functional, mission-critical capabilities in a safe, secure, environmentally sound manner
- Seek opportunities to modernize CMR operations co-located with similar existing operations and with reduced footprint
- Provide enhanced security posture and reduced security costs

# CMRR – Project Scope

## Radiological Lab Utility Office Building (RLUOB)



### Facility Performance Baseline (\$164M TPC):

- 19,500 nsf radiological lab space (<8.4g 239 Pu equivalent)
- Centralized utilities/services for all CMRR facility elements
- Office space for 350 CMRR workers
- Consolidated training facility
- Facility incident command; emergency response capabilities

Status: In construction

### RLUOB Equipment and Installation

- Lab Room Equipment and finishes
- Security Equipment & Telecommunications
- Final Lab Ops Tie-ins & Lab filtration

Status: Design nearing completion, Procurement to begin this summer

## CMRR Project

## Nuclear Facility (NF)

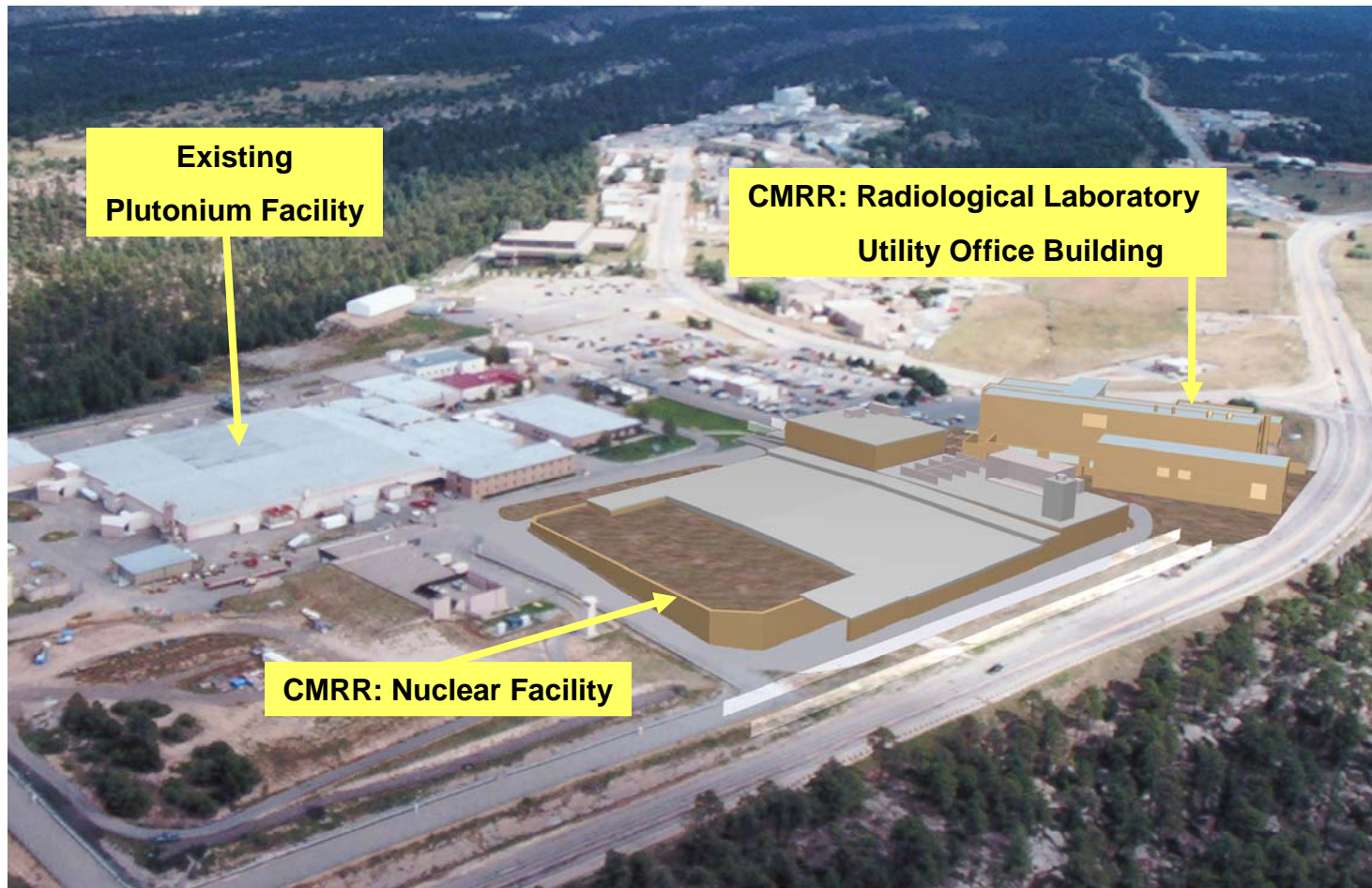


### Baseline under Development:

- CMR Chemistry Replacement Capability
- 22,500 nsf lab space
- Special Nuclear Material storage (6M tons)
- Special Facility Equipment

Status: Preparation for Final Design Start

# 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, Technical Reviews, and Permitting activities (late year)
- 2008 CMRR Nuclear Facility, Final Design Authorization

## Future Years

- 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 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
  - FY10-FY13 funding profile is under evaluation and development

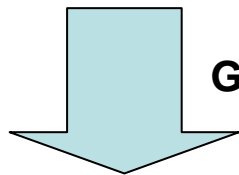
# Integration of Safety into Design

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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
- Implementation of “defense-in-depth” safety concept
  - 1) **Minimize Hazardous Materials**
  - 2) **SSC’s preferred over administrative controls**
  - 3) **Passive preferred over active**
  - 4) **Prevention preferred over mitigation**
  - 5) **Facility SSCs preferred over personal protective equipment**
  - 6) **Controls closest to the hazard protect both the public and worker**
  - 7) **Controls effective for multiple hazards are resource effective**

# Energy & Environmental Stewardship

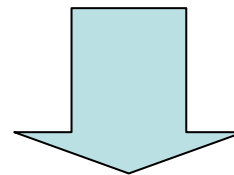
The LEED (Leadership in Energy and Environmental Design) Green Building Rating System® is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings.



**Goal: Silver Certification**



**RLUOB**



**LEED Certification will be Proposed for DOE Acquisition Executive Approval**



**Nuclear Facility**

LEED design criteria include factors in: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, and Innovation in Design

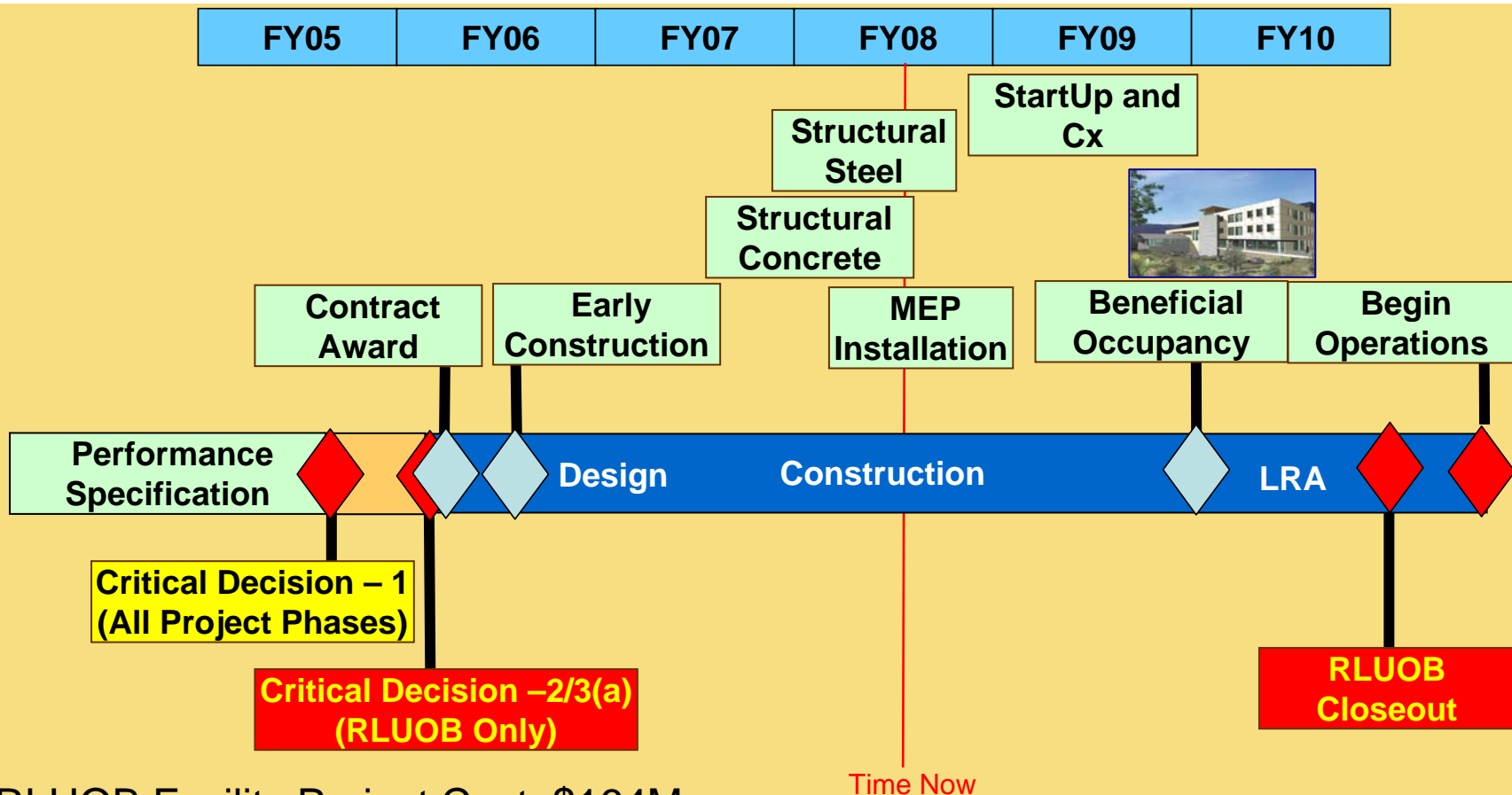
# RLUOB Project Overview

- RLUOB is a support facility for the TA-55 Complex targeted to be operational in 2011 to support a phased reduction of CMR operations.



- 19,500 sqft Radiological Lab Space
- Emergency Operations Center
- Utility (non-safety) support
- Facility Incident Command
- 350 Office Spaces
- Training Facilities

# RLUOB Project Timeline



RLUOB Facility Project Cost: \$164M

# RLUOB Construction Activities (Fall 07)

#2604 - RLUOB Status Looking South



#2605 - Retaining Wall Status



#2662 - 1st Floor Poured Column A-4

# RLUOB Construction Activities (Nov 07)



# RLUOB Construction Activities (Nov 07)

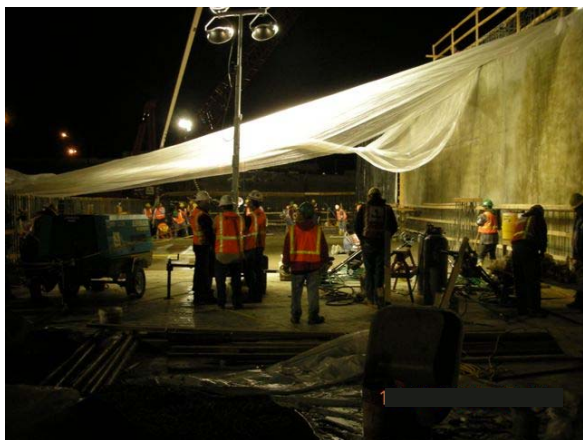




# RLUOB Construction Activities (Dec 07)

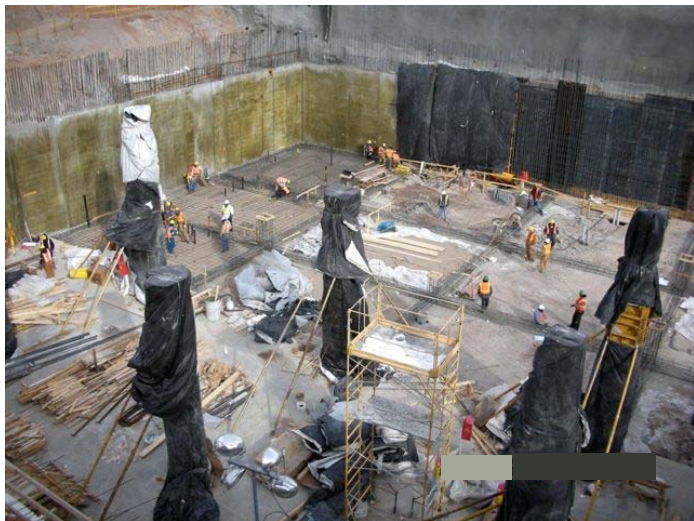


#3530 - Area A and C Status  
Looking South



#3500 - Excavation Forming Grade  
Beams at Area 11-12- Line 2

# RLUOB Construction Activities (Dec 07)



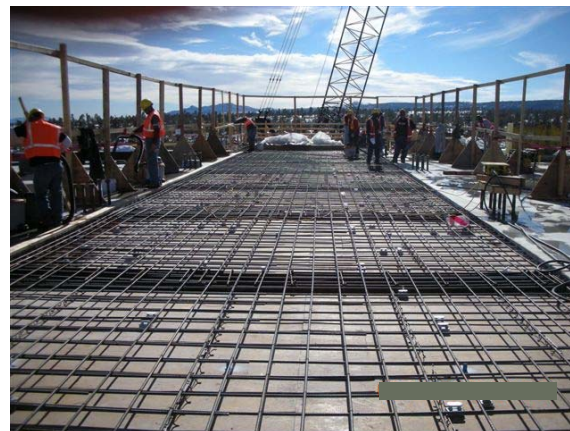
# RLUOB Construction Activities (Jan 08)



# RLUOB Construction Activities (Jan-Feb 08)



# RLUOB Construction Activities (Feb 08)



# RLUOB Construction Activities (Feb 08)



# RLUOB Construction Activities (Mar 08)



# RLUOB Quality Assurance

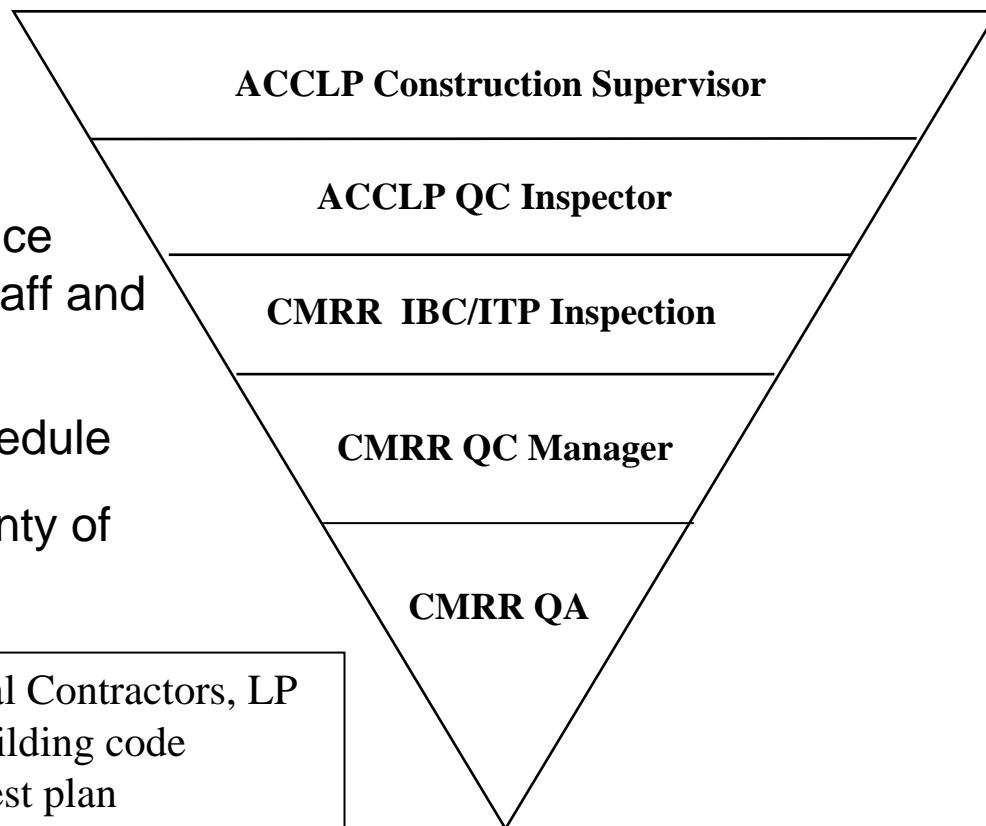
- Rigorous Nuclear Quality Assurance (NQA-1) Program ensuring high facility pedigree
- ACCLP has a team of field inspectors and quality assurance staff to implement a NQA-1 Quality Program
- A dedicated CMRR QA/QC Oversight Program provides continuous verification of quality construction
- Implementation of all applicable Federal and State requirements must be demonstrated including IBC (International Building Code)





# RLUOB Quality Assurance

- Working and verifying to ensure ASME/NQA-1-2000 compliance
- Full-time dedicated Quality Assurance Manager, QA (quality assurance) staff and QC (quality control) Inspectors
- Rigorous on-going assessment schedule
- Layered Inspection to ensure certainty of outcome



ACCLP = Austin Commercial Contractors, LP  
 IBC = international building code  
 ITP = inspection test plan  
 QA = quality assurance  
 QC = quality control

# RLUOB Construction QA (Mar 08)



# RLUOB Construction Safety

- Ensuring worker safety and protection is the first priority
- Project Zero Accident Team (ZAT) – comprised of management from ACCLP, CMRR, NNSA and Craft Representatives – safety initiatives:
  - Safety Incentive and Recognition for Crafts
  - Weekly Site Safety Walkdowns with Craft and Management
  - Safety Leadership Workshops for Craft and Managers
  - Safety Review of 3-Week Look Ahead Schedule
- Worker Safety is continuously assessed



# People Based Safety (PBS)

- Proven process using an Observation/Feedback Process (OFP) to help prevent injuries:
- Peer to Peer observation of work activities and behaviors
- **DOGS** (Daily Observations Getting Safer)
- Provides immediate constructive feedback and positive reinforcement of safe behaviors (no name/no blame)
- Increasing employee involvement and ideas for process/behavior improvements
- Championed by senior management
- **GOAL: Achieve 100% Safe Behaviors**



# Environmental Compliance

- Storm Water Pollution Prevention Plan (SWPPP)
  - 69 inspections to date by Certified Inspectors of Sediment and Erosion Control (CISEC)
  - 13 inspections in FY08 (since last public meeting) by CISEC inspectors
  - No non-compliances nor Administrative Orders in FY08



# Pollution Prevention (P2) Update

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- 2006 LANL Environmental Stewardship Awards:
  - LEED™ silver certification initiative for RLUOB design
- 2007 LANL Best-in-Class Awards:
  - Reuse/Recycle of Soil, Asphalt, Mulch from Vegetation
    - ✓ reused/recycled soil (~207,000 yd<sup>3</sup>)
    - ✓ recycled asphalt (~486 yd<sup>3</sup>) as base course for construction traffic
    - ✓ reused tree and brush mulch as dust suppression and other uses
    - ✓ Total Cost Savings ~ \$1,735,000
- 2008 NNSA Environmental Stewardship Award (soil recycling)

# CMRR Project – Q & A

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Questions, Comments so far?

# Settlement Party Questions

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- Proceedings available within 30 days?
- Questions to skip at the beginning but come back to if there is time:
  - NEPA items – this process has meetings of its own and is outside the project's control
  - Undetermined, future (speculative) items – entertaining but endless
  - Items outside the scope of the CMRR project
- Questions to attempt first:
  - Project-related budget requests, status
  - Approved and funded project-related mission, facility requirements, construction activity
  - Applicable environment and safety protection activities



# CMRR Project

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## Additional Comments, Questions?

# Next Meeting

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Requests for topics?

# CMRR Project

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**Thank you for attending.**

## ***V. Flip Chart Notes***

**CMRR Public Meeting**  
**March 25, 2008**  
**Los Alamos, NM**

COMMENTS

**Meeting Request:** During the presentation and Q/A period, Joni Arends, Representative from Concerned Citizens for Nuclear Safety noted that a seismic report was due and because of specific questions regarding seismic issues she requested a separate meeting. This meeting would be separate from other project update meetings and should be scheduled sooner than the next bi-annual project update, with DOE/LASO and the Project regarding seismic study results and relation of those to design of CMRR Project structures. Steve Fong will follow-up with Ms. Arends to arrange the meeting.

**Written Questions:** Scott Kovac, Nuclear Watch New Mexico and Joni Arends, Concerned Citizens for Nuclear Safety asked for written responses to the written questions submitted by Settlement Agreement signatories, preferably to be received prior to the date of the bi-annual meetings. Several of the questions were answered during the Q/A period of the public meeting and will not be included in the written responses.

Question raised by facilitator as to interest and ability to move the next bi-annual meeting to an earlier than bi-annual date. No clear requests for this from Settlement Agreement parties present. May not be possible to do this and stay in alignment with Settlement Agreement stipulations. The meeting on Seismic issues specifically may be the interim meeting that Settlement party members were looking for

**Possible September Meeting Agenda Items:**

- Review of questions & answers to specific questions
- Shorten Project presentation if possible in order to have more time for Q/A
- Air permitting updates

## ***VI. Sign-in Sheet***



Tuesday, March 25, 2008  
 CMRR Public Meeting @ Fuller Lodge, Los Alamos - SIGN IN SHEET

NAME (please print)	ADDRESS	TELEPHONE NUMBER	E-MAIL	WOULD YOU LIKE TO SPEAK?
Marrison Bennett	P.O. Box 160 Los Alamos	667-3916	mbeannett@lanl.gov	NO
Roy Suedynon	254 OP Rd.	662-4185	royer@lambertfor.com	NO
T. WINTAKS	D450	665-5042	twhitaks@lanl.gov	NO
Rick Holmes	LANL - CURR-110	666-2389	rhomes@lanl.gov	
NIDOLE SEGWIN	LANL CURR - SMSJ 496 GRAND CANYON LOS ALAMOS	665-5183	nsegwin@lanl.gov	NO
AL MEDENDORA	LANL	672-0154	ALLENM@SPINN.NET	NO
Steve Story	LANL	665-2169	story@lanl.gov	No
Rosemary Romero	1350 SAN JUAN DR. S.F. NM 87505	902-9805	romero.rosemary@gmail.com	
Jeff Berger		665-9178	jberger@lanl.gov	No
Scott Kovacs			scott@nukewatch.org	



Tuesday, March 25, 2008  
 CMRR Public Meeting @ Fuller Lodge, Los Alamos -- SIGN IN SHEET

NAME (please print)	ADDRESS	TELEPHONE NUMBER	E-MAIL	WOULD YOU LIKE TO SPEAK?
CIRIAC BAUMEZ	70 San Rafael St			No
MYRON KOOP	505 ORDENHEIMER #108 LA			No
DIANNE WILBURN	1042 ORO CT LA 87544	7-6952		No
Tom Walker	242 Garver	7-2724		No
Marian Varejo	P.O. Box 474 Escondido, CA 92025	747-4652		No
Penelope McMiller	113 Ann. Santiago CCNS		pm.s.l. @ cybermedia.com	Yes.
Joni ARENDS		986-1973		
Susan TERP	Los Alamos			No
PAUL TERP	Los Alamos			No
Tony Ladino	Los Alamos			No





Tuesday, March 25, 2008  
 CMRR Public Meeting @ Fuller Lodge, Los Alamos - SIGN IN SHEET

NAME (please print)	ADDRESS	TELEPHONE NUMBER	E-MAIL	WOULD YOU LIKE TO SPEAK?
<i>Rubon New</i>	<i>LANL</i>			
<i>Ellen McGee</i>	<i>LANL</i>			
<i>JANIE BONDS LOPEZ</i>	<i>LANL</i>			
<i>DOROTHY AGARD</i>	<i>11 LOS ARBOLES</i>	<i>662-2662</i>	<i>dorothytt @swcp.com</i>	
<i>MARK DIMEHART</i>	<i>530 BRIGHTON DR</i>	<i>-</i>	<i>-</i>	
<i>DANE FUEHNE</i>	<i>LANL 5978</i>	<i>665 3830</i>	<i>dane.fuehne@lanl.gov</i>	