

# Interested Parties CMRR Presentation April 25, 2012



Welcome to our 13<sup>th</sup> Meeting!  
Be Inspired!

This is the 13th semi-annual public meeting  
required as part of a 2005 settlement between  
DOE/LANL and an network of community groups:

- Concerned Citizens for Nuclear Safety
- Embudo Valley Environmental Monitoring Group
- Loretto Community
- New Mexico Environmental Law Center
- Nuclear Watch New Mexico
- Peace Action New Mexico
- Tewa Women United

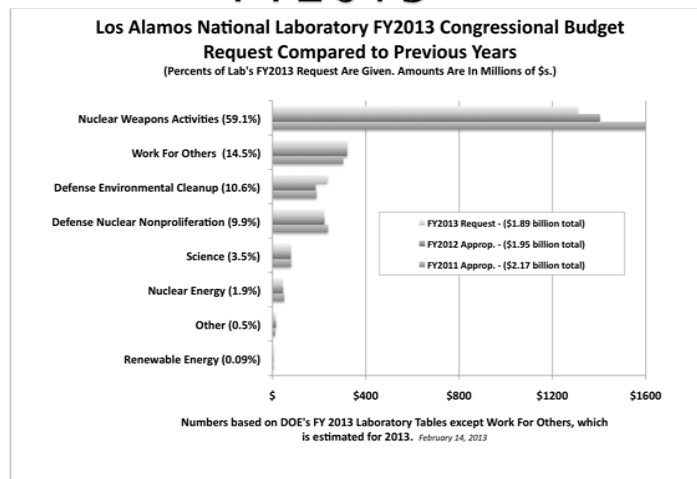
## Welcome to our 13<sup>th</sup> Meeting! Be Inspired!

Topics to be covered in this Chemistry and Metallurgy Research Replacement Project (CMRR) presentation:

1. Beata Tsosie-Peña
2. 2013 Budget
3. CMRR Deferred
4. Use of Existing Facilities
5. GAO Report
6. Performance Evaluation Report
7. DoD Memo
8. Clean Up Don't Build Up
9. Loretto Statement

3

## DOE/LANL Budget Priorities FY2013

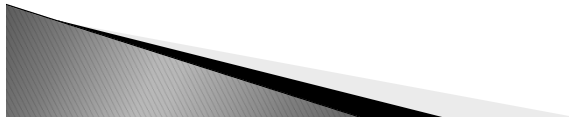


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4

# CUTS: CMRR FACILITY

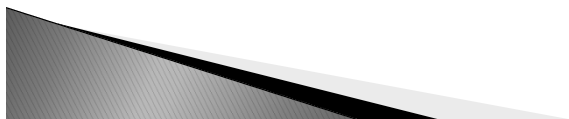
	Construction Projects <sup>a</sup>					
	(dollars in thousands)					
	Total Estimated Cost (TEC)	Prior Year Appro- priations	FY 2011 Current	FY 2012 Enacted	FY 2013 Request	Unappropriated Balance
04-D-125, Chemistry and Metallurgy Research Facility Replacement (CMRR), LANL	TBD	425,832	214,550	200,000	0	TBD



5

## CMRR Facility Spent

- Prior Spent \$425,832,000
- FY2011 \$214,550,000
- FY2012 \$200,000,000
  
- Total \$840,382,000
- RLOUB Building \$165,000,000
- RLUOB "Equipment" \$199,000,000
  
- Total CMRR Design \$476,382,000



6

## CUTS: CMRR FACILITY

- The Obama Administration proposes deferring the construction of the CMRR facility and meeting plutonium requirements by using existing facilities in the nuclear complex.
- **Funding Summary**
  - 2012 Enacted \$200 million
  - 2013 Request \$35 million
  - 2013 Change from 2012 –\$165 million
- In 2013, the funds are in the Nuclear Operations account in the Readiness Technical Base Facilities program.

‣ <http://www.whitehouse.gov/omb/budget/CCS>

7

## CMRR FACILITY FUNDING ADJUSTMENT

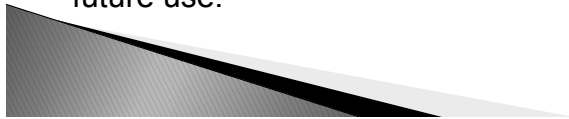
- *Rescission.*—*The Committee rescinds \$65,000,000 in prior-year balances from the Chemistry and Metallurgy Facility Replacement Project–Nuclear Facility.*
- Given the NNSA has announced a five-year delay in constructing the Nuclear Facility project and there is still no revised plutonium strategy which would make use of the considerable prior-year balances, a portion of these funds are available to offset funding needs for Los Alamos infrastructure in fiscal year 2013
- ENERGY AND WATER DEVELOPMENT APPROPRIATIONS BILL, 2013

8

# FY2013 Budget to Optimize Use of Existing Infrastructure

Because the CMRR-NF is deferred for at least 5 years, DNFSB requested that LANL provide a final plan that includes:

A plan to substantially complete CMRR-NF design by the end of FY 2012 including design close-out activities to ensure project documentation is available for potential future use.

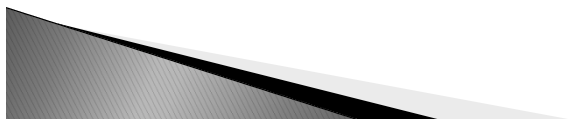


9

## Use of Existing Facilities

DNFSB requested that LANL provide a final plan that includes:

- An orderly phase out of NNSA program activities at the existing Chemistry and Metallurgy Research Building concluding in approximately 2019 (following completion of the Confinement Vessel Disposition project in Wing 9).
- Plans for continued analytical chemistry capabilities to support mission needs that include maximum use of the Radiological Laboratory, Utility and Office Building (RLUOB).

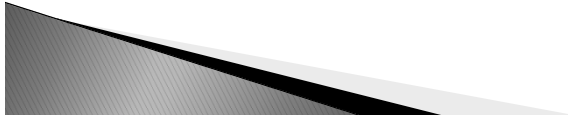


10

# Use of Existing Facilities

DNFSB requested that LANL provide a final plan that includes:

- Capability to safely and securely move material between RLUOB and the Plutonium Facility and address sample preparation at the Plutonium Facility.
- Consider options at other NNSA sites to address residual analytical chemistry needs.

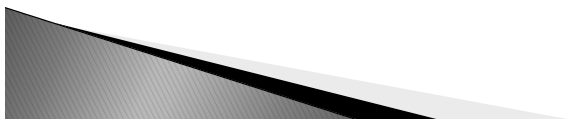


11

# Use of Existing Facilities

DNFSB requested that LANL provide a final plan that includes:

- Maintain required material characterization capabilities using the Plutonium Facility and Building 332 at Livermore, CA, as a Hazard Category 2, Security Category 3 nuclear facility.
- Minimize nuclear material at the Plutonium Facility by processing, packaging, and shipping excess materials including a plan and estimated timeline to stage bulk quantities at the Device Assembly Facility (NV).

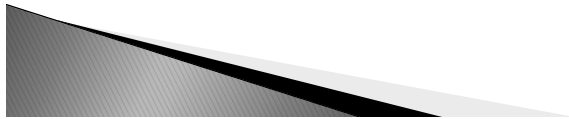


12

# Use of Existing Facilities

The Defense Nuclear Facilities Safety Board and the Revised Plutonium Strategy mention increasing the amount of plutonium allowed in the RLUOB to be increased up to four times (from 8.4 grams).

**Please explain the rational of how the RLUOB can now hold four times the plutonium that it was originally designed for.**

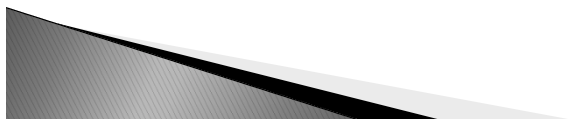


13

## March 2012 Government Accountability Office (GAO) Report

To the Subcommittee on Energy and Water Development,  
Committee on Appropriations, U.S. Senate

“New Plutonium Research Facility at Los Alamos May Not  
Meet All Mission Needs”



14

## March 2012 GAO Report

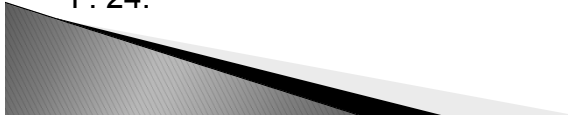
Recommends that NNSA “conduct a comprehensive assessment of needed plutonium-related research, storage, and environmental testing needs for nuclear weapons stockpile activities as well as other missions currently conducted at other NNSA and DOE facilities.”

P. 23

### **What is the timeline for the assessment?**

As noted in the report, “NNSA’s decision to defer construction of the CMRR will give it sufficient time to conduct this assessment.”

P. 24.



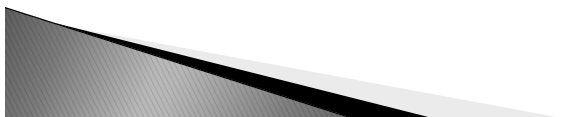
15

## March 2012 GAO Report

The GAO noted that “a necessary electrical system upgrade that might not be completed in time for construction activities.”

P. 13.

**Please describe this necessary electrical system upgrade. Is it still going to proceed?**



16

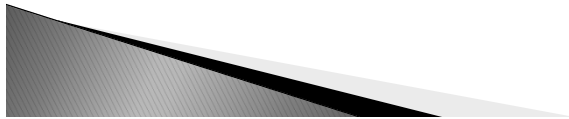


# More Pits Still Possible

From GAO:

In commenting on our report, NNSA officials agreed that they will not be able to increase LANL's pit manufacturing capacity to larger levels (e.g., 50 to 80 pits per year) without improvements to supporting facilities. However, they said that they had some flexibility to achieve a modest increase in LANL's pit manufacturing capacity to address a specific requirement for additional pits. In that regard, they said that they could apply more shifts, add equipment to PF-4, move some material out of the storage vault in PF-4, and make some adjustments to analytical chemistry requirements. However, NNSA officials did not provide any details on how many additional pits they would be able to produce if they performed these activities.

## How Many Would Be Possible?

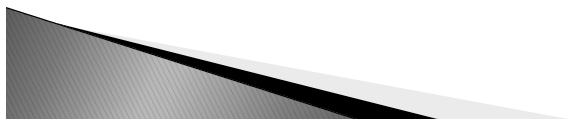


17

# FY 2011 Performance Evaluation Report (PER) For Los Alamos National Security

For the Management And Operation Of The Los Alamos  
National Laboratory

Obtained through the Freedom of Information Act by  
Nuclear Watch New Mexico



18

# FY 2011 Performance Evaluation Report

## PBI 5: CMRR Delivery

Maximum Available Fee: **\$2,578,447**  
Fee Earned: **\$1,443,931.00**

PBI 5: CMRR Delivery		AVAILABLE FEE \$2,578,447.00		AWARDED FEE \$1,443,931.00 56%	
		ESSENTIAL	STRETCH	ESSENTIAL	STRETCH
5.1E	CMRR RLUOB/REI Performance	\$351,808.00		\$175,803.00	
5.1S	CMRR RLUOB/REI Performance		\$351,808.00		\$0.00
5.2E	CMRR NF/SFE Performance	\$488,809.00		\$389,112.00	
5.2S	CMRR NF/SFE Performance		\$234,404.00		\$0.00
5.3	CMRR and UPF Integration		\$1,172,022.00		\$879,016.00
		\$820,415.00	\$1,758,032.00	\$564,915.00	\$879,016.00

19

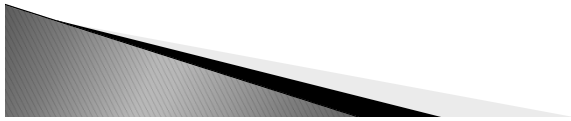
# FY 2011 Performance Evaluation Report

- Beneficial occupancy of the Radiological Laboratory/Utility/Office Building (RLUOB) facility
- “Concerns remain with overall RLUOB settlement costs in addition to recent deficiencies in Glovebox procurement and installation.”
- What is meant by RLUOB settlement costs?
- What are the concerns with the RLUOB settlement costs?
- What are the deficiencies in glovebox procurement and installation?

20

## General Questions

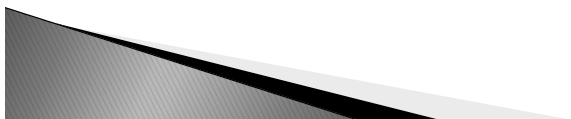
- What is the current estimated cost range for the NF?
- When will the baseline estimate be released?
- What is the impact to the baseline estimate of deferring the project for at least 5 Years? Is this question being examined? When will we have the answer?



21

## General Questions

- What are the respective cost estimates for the deep and shallow options?
- When will the design of the NF be 90% complete?



22

# Shallow and Deep Very Weak and Extremely Weak

“Units Qbt4, Qbt3U, and Qbt2 are classified as “very weak” rock based on criteria established by Brown, ISRM (1981). Transitional units Qbt3L-t and Qbt2-t are classified as “extremely weak” to “very weak” rock. Unit Qbt3L exhibits average unconfined compressive strength below the lower threshold of 36 psi for “extremely weak” rock, making it more appropriate to classify its strength on the soil scale.”

(Pg. 51) Geotechnical Engineering Report DCN 19435.10528.5-ALB06RP002 Chemistry and Metallurgy Research Facility Replacement Project No. 19435 Los Alamos National Laboratory Rev. 0 Copyright 2007, Kleinfelder 5/25/07 19435.10528.5-ALB06RP002, Rev. 0 – Page 51 of 300

# Has there been a decision?

23

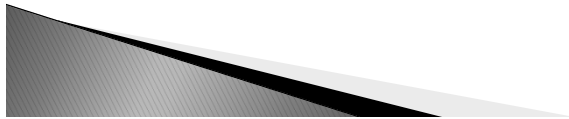
# Reminder – Lack Of Permanent New Jobs from Draft SEIS

Resource/Material Category	No Action Alternative <sup>a</sup>	Modified CMRR-NF Alternative	Continued Use of CMR Building Alternative
<b>Socioeconomics</b>			
<b>Construction</b>	Employment would have resulted in little socioeconomic effect.	Peak direct (790 workers) plus indirect (450 workers) employment would represent less than 1 percent of the regional workforce and would have little socioeconomic effect.	Not applicable
<b>Operations</b>	Approximately 550 workers would have been at the CMRR Facility (2004 CMRR-NF and RLUOB); they would have come from the CMR Building and other facilities at LANL so the facility would not have increased employment or changed socioeconomic conditions in the region.	Approximately 550 workers would be at the CMRR Facility (Modified CMRR-NF and RLUOB); they would come from the CMR Building and other facilities at LANL so the facility would not increase employment or change socioeconomic conditions in the region.	Approximately 210 workers would continue work at the CMR Building, many of whom would be among the staff members whose offices would be relocated to RLUOB. Another 140 workers would work in RLUOB. Workers would come from the CMR Building and other facilities at LANL so there would not be an increase in employment or a change in socioeconomic conditions in the region.
CMR = Chemistry and Metallurgy Research; CMRR = Chemistry and Metallurgy Research Building Replacement; CMRR-NF = Chemistry and Metallurgy Research Building Replacement Nuclear Facility <sup>a</sup> The impacts shown for the No Action Alternative reflect impacts as reported in the CMRR EIS for the purpose of comparison with the action alternatives, with the exception of the facility accident results, which were reanalyzed for this CMRR-NF SEIS, and transportation and traffic impacts and greenhouse gas emissions, which were not analyzed in the CMRR EIS. As stated in Section 5.4, the 2004 CMRR-NF would not meet the current standards for a PC-3 facility, and a PC-3 facility is required to safely conduct all of the analytical chemistry and materials characterization work required to support DOE and NNSA mission work. Therefore, the No Action Alternative is not being evaluated in this CMRR-NF SEIS as an alternative that would meet NNSA's purpose and need.			

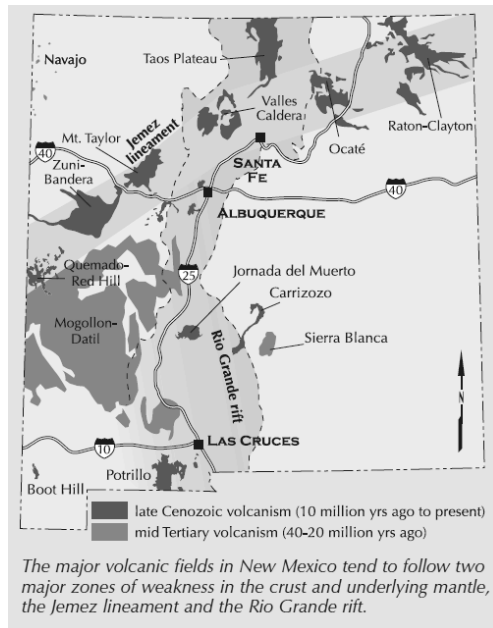
24

## Clean Up, Don't Build Up!

- Many feel that the completion of the Consent Order is at risk.
- DOE/LANL/LANS should put construction of new projects, including CMRR, on hold until all the requirements of the Consent Order are funded first.



25



<http://geoinfo.nmt.edu/publications/periodicals/earthmatters/6/EMV6N1.pdf>

## Where the Jemez Lineament Crosses the Rio Grande Rift

### Not the Place for a Permanent Nuclear Waste Dump!

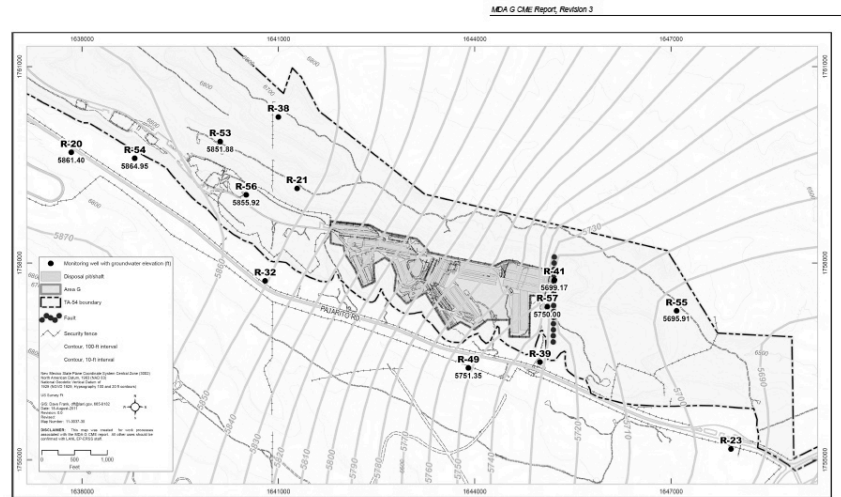
This zone may be the weakness formed where two very old blocks of the earth's crust were pressed together.

In addition to crustal weakness, volcanism in New Mexico is also likely related to upwelling of abnormally hot mantle material.

With the possible exception of the Jemez Mountains, all existing volcanoes in New Mexico are probably extinct.

26

## Seismic Concerns Across LANL



Note: Applied water-level data are presented for each monitoring well. This version takes into account the deep water level at R-41 and assumes that there is a vertical barrier impacting the deep aquifer flow between R-27 and R-41.

Figure E-3.3-4 Version 2 of the water-level contour map representative of the regional piezometric surfaces near MDA G; the map is based on February 2011 water levels measured in the deepest screens in the monitoring wells

E-46

27

## LORETTO COMMUNITY STATEMENT

- 200-year anniversary of the founding of the Sisters of Loretto
- First community of sisters founded in the United States with no affiliation with Europe.

28