Exhibit List

Federal Defendants' Opposition to Plaintiff's Motion for Preliminary Injunction

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UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW MEXICO

THE LOS ALAMOS STUDY GROUP,

Plaintiff,

v.

UNITED STATES DEPARTMENT OF ENERGY, et al.,

Federal Defendants.

Case No. 1:10-CV-0760-JH-ACT

DECLARATION OF ROGER E. SNYDER

I, Roger E. Snyder, pursuant to Title 28, United States Code, Section 1746, declare:

1. I am the Deputy Site Manager at the Los Alamos Site Office of the National Nuclear Security Administration ("NNSA"), a semi-autonomous agency within the Department of Energy ("DOE"). I have held this position since December 2007. As Deputy Site Manager, I am responsible for operations at the Los Alamos National Laboratory ("LANL"). Prior to serving in this capacity, I served as Assistant Manager for National Security Missions and the Assistant Manager for Projects. Prior to June 2005, I worked for NNSA headquarters in the Washington DC area. I am a graduate of the University of Illinois with B.S. in Civil Engineering and the University of Maryland with M.S. in Civil Engineering.

2. I oversee, at the site level, the proposed Chemistry and Metallurgy Research Facility Replacement ("CMRR") Project. This declaration provides information on the current status of the CMRR Nuclear Facility ("CMRR-NF"), relationships to other site projects and

operations, and efforts underway and in support of the CMRR-NF Supplemental Environmental Impact Statement ("SEIS"). It also addresses the national security and international policy implications should the court issue an injunction precluding further funding of project design for the CMRR-NF. The information contained herein is based on my personal knowledge and information provided to me during the performance of my official duties.

Background on the Proposed CMRR Project

3. The CMRR Project consists of the acquisition of two structures. The CMRR Radiological Laboratory Utility Office Building ("RLUOB") was the first facility procured and is now physically complete with equipment installation underway. The CMRR-NF is the second, more substantial facility, and is currently under design.

4. The CMRR Project is intended to provide a suite of capabilities, including analytical chemistry and material characterization, actinide research and development, and special nuclear materials storage. These capabilities currently reside in the existing Chemistry and Metallurgy Research Facility ("CMR") at LANL, a facility which became operational in 1952. The CMR is designated as a "mission critical" facility.

5. CMRR capabilities represent a suite of analytical chemistry tools that are not unique to any single program, but are necessary for all programmatic operations involving special nuclear materials. CMRR capabilities are not tied to any one program or weapons type. In addition to supporting NNSA stockpile stewardship and stockpile management objectives, the capabilities are needed to support many other programs, such as nonproliferation sponsored activities, space missions, and other energy security missions assigned to LANL. For

example, CMRR capabilities are necessary for the manufacturing of power system components for long range space missions, as well as for nuclear forensics key to non-proliferation and counterterrorism. Moreover, the missions supported by CMR (and therefore CMRR-NF, as its potential replacement) directly relate to and integrate with the balance of the Nation's nuclear weapons complex, including seven sites in addition to LANL, which collectively maintain and certify the U.S. nuclear deterrent.

6. The *Final Environmental Impact Statement for the Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory, Los Alamos, New Mexico* (DOE/EIS0350) ("CMRR EIS") was issued in November 2003 and confirms that pit fabrication will not be carried out in the CMRR-NF. Rather, the mission of the CMRR Project includes support for existing pit production activities, along with other mission critical activities. Pit fabrication (which includes metal preparation, foundry, machining, assembly, and post assembly processing) activities are conducted in PF-4 (an existing plutonium facility at TA-55). No other facility at LANL has this capability. Pit production (which includes fabrication) has been evaluated as part of multiple Programmatic and Site-Wide EIS analyses.

7. The CMRR-NF has always been predicated upon fulfillment of the functionality and capability documented in the Secretary of Energy's July 2, 2002, Approval of Mission Need. The mission need was confirmed by the Nuclear Posture Review ("NPR") issued in April of this year. The mission assignment to LANL was analyzed under the *Final Programmatic Environmental Impact Statement for Stockpile Stewardship and Management* (DOE/EIS-0236), issued in 1996, and its associated Record of Decision ("ROD"). This mission

assignment remains unchanged for purposes of the CMRR-NF SEIS, which is currently under preparation.

8. The 2003 CMRR EIS was based upon the best available conceptual information at that time. Since 2003, changes in building codes, security requirements, new seismic investigation information, new energy and sustainability requirements, and other factors have been integrated into the proposed CMRR-NF design, and our understanding of the necessary support systems and facility characteristics has evolved. For example, new seismic information was a principal factor identifying the need for thicker, stronger walls and floors. This added substantial mass to the facility and, in at least one alternative design under consideration, would drive removal and replacement of a weaker zone of soil underneath the proposed building. As part of design efforts other options are being studied. The end result of design will be a building that will survive the updated earthquake criteria without any change in mission functionality or capability.

9. The current design for the proposed CMRR-NF, which is still subject to change through design maturation, contemplates the same scope of operations necessary to meet mission requirements as the facility contemplated in the 2003 CMRR EIS. The space currently proposed for chemistry operations and materials characterization represents the smallest capability size option.

10. Public information meetings, specific to the CMRR Project, are held twice a year. See Attachment 1. Advance notice of the meetings is provided in the local newspaper and through stakeholder mailing lists. At these meetings, project staff members present a status overview of the entire project and then are available to answer project-related questions. An

agenda is prepared for each meeting, which typically lasts two hours. Meeting transcripts are available on the LANL website (http://www.lanl.gov/orgs/cmrr/publicmeetings/index.shtml). One or more of Plaintiff's members regularly attend these meetings. See Attachment 1. Mr. Mello and/or his wife have attended since 2007. A CMRR-specific website (http://www.lanl.gov/orgs/cmrr) is available to the public and stakeholders for current project information. The CMRR Project was addressed (with updated information as available) in the 2008 *Final Site-Wide Environmental Impact Statement for Continued Operation of Los Alamos National Laboratory, Los Alamos, New Mexico* (DOE/EIS-0380)), as well as the 2008 *Complex Transformation Supplemental Programmatic Environmental Impact Statement* (DOE/EIS-0236-S4). LANL held a Construction Forum in June 16, 2010, in part to inform the public on ongoing and proposed projects at LANL, including CMRR-NF.

11. Pajarito Road is on government property and has been restricted from public use since late 2001. It is routinely closed for purposes of nuclear material movements and other security concerns. Any traffic delays resulting from such closures would impact only those employed at LANL or working in support of LANL operations. Transit to and from the site is possible on other federally owned roadways.

Current Status of the Project

12. CMRR-NF construction will not be authorized or executed during the SEIS period. No contracts or contract options for the physical construction of CMRR-NF will be awarded pending outcome of the SEIS.

13. As part of the normal development of a design basis and future revised cost estimates, the Department may seek bids and/or quotes to use in revised cost estimates or for evaluation of system options. However, in such cases, the government and LANL are under no obligation to act on these bids and/or quotes. Because there are no such binding commitments, the taxpayer will not incur additional cost should the SEIS and ROD not support furtherance of the preferred alternative.

14. Final design contracts for the CMRR-NF have been deferred. Certain design efforts are continuing as a means to resolve unknowns and to continue to enhance our understanding of requirements, quantities, and impacts. Much of the knowledge we gain from current design efforts will assist in preparation of the SEIS and evaluation of the alternatives presented during the scoping period. For example, development of a suitable concrete design mix will enable development of higher fidelity estimates for water and aggregate requirements for the SEIS. During the period of the SEIS, it is estimated that CMRR-NF design will only advance about 15 percent.

15. The CMRR-NF has not established a performance baseline, as design uncertainties continue to be addressed. A timeline for Critical Decision 2 (Approve Performance Baseline) has not yet been finalized. The Performance Baseline will provide Congress with the definitive cost and schedule for the CMRR-NF Project. In light of the SEIS, a definitive path forward will not be established until issuance of a ROD by NNSA. Critical Decision 2 is required prior to Critical Decision 3 (Approve Start of Construction).

Status of Construction Activities at Los Alamos

16. In 2006, DOE authorized and funded the excavation and removal of material in the proposed CMRR-NF location, as identified and approved in the 2004 ROD. The purpose of the excavation was to facilitate seismic mapping and analysis of the area as part of site characterization activities. The characterization data reduced associated design uncertainties and confirmed the suitability of the site for the CMRR-NF. The area, excavated roughly down to the grade of the neighboring roadway, also served as a construction laydown area for RLUOB and now its equipment installation phase. No further excavation is planned in this area until a ROD is issued following the SEIS.

17. LANL is an operating site with ongoing plutonium operations comprising an area nearly as large as the District of Columbia. Most plutonium operations are located in Technical Area 55 ("TA-55"). There are a number of ongoing projects that directly support these existing operations irrespective of a decision to construct the CMRR-NF. The Nuclear Material Safeguards and Security Upgrade Project, Phase II ("NMSSUP2"), is presently in construction and will replace the security perimeter around the existing plutonium facilities – not the proposed CMRR-NF. The Radioactive Liquid Waste Treatment Facility at TA-50 (near TA-55) is presently in design to replace the 50-year-old existing facility with a smaller modern facility. The TRU Waste Facility Project recently began design on a smaller modern complex to replace existing solid transuranic waste management facilities at TA-54 that are scheduled to be closed and removed by 2015 per a Consent Order with the State of New Mexico. These projects represent capabilities essential for ongoing operations and have been appropriately addressed in prior National Environmental Policy Act ("NEPA") analyses. These projects are not dependent upon construction of CMRR-NF, nor does CMRR-NF

necessitate their construction. The LANL website (http://www.lanl.gov/construction/projects.shtml) contains information pertaining to all of these projects, including current status information for the benefit of the public and stakeholders.

18. The TA-55 Reinvestment Project addresses essential safety and environmental monitoring systems within existing TA-55 facilities that are approaching end of life. The existing plutonium facility and infrastructure systems are aging and, as a consequence, are beginning to require excessive maintenance. As a result, the facility is experiencing increased operating costs and reduced system reliability. It is becoming more costly and cumbersome to comply with safety and regulatory requirements, which are critical to mission essential operations, due to the physical conditions of facility support systems and equipment. The TA-55 Reinvestment Project will enhance safety and enable cost effective operations so that the facility can continue to support critical missions and activities. TA-55 Reinvestment Project efforts were selected utilizing a risk-based prioritization process that considered the current condition of the equipment, risk of failure to the worker, the environment, and the public, and risk of failure to programmatic and facility operations. The TA-55 Reinvestment Project only addresses the existing plutonium facilities, principally the PF-4 facility, and is required irrespective of any action relative to the CMRR-NF.

19. The NMSSUP2 commenced construction in 2009 and is not part of the CMRR-NF Project. The NMSSUP2 supports the continued viability of plutonium missions by upgrading and replacing the perimeter security and entry control systems of the existing plutonium facilities at TA-55. These improvements are necessary to protect critical national assets against terrorist or adversarial threats and meet evolving DOE/NNSA security requirements. The

proposed CMRR-NF site lies outside of the security perimeter upgraded by NMSSUP2. The CMRR-NF Project scope includes the expansion of the existing security perimeter around the CMRR-NF.

20. The existing TA-50 radioactive liquid waste facility characterizes, treats, and disposes of radioactive liquid waste by chemical adjustment of pH, neutralization, chemical assisted flocculation and floc removal, collection and dewatering of sludge solids, solidification of sludge solids in concrete, sedimentation and filtration, ion exchange, and addition of water treatment chemicals. The current facility is oversized, nearly 50 years old, and does not meet modern safety and reliability expectations. This is the only such operable facility onsite and addresses radioactive liquid wastes from multiple facilities including those outside of TA-55. The Radioactive Liquid Waste Treatment Facility ("RLWTF") Project will replace the existing treatment capability at TA-50, involving both the transuranic and low-level waste operations, as well as construction of a zero liquid discharge capability. The RLWTF Project is presently in design and is required irrespective of any action relative to the CMRR-NF.

21. DOE signed an Order of Consent ("Consent Order") with the State of New Mexico, effective March 1, 2005. The Consent Order requires DOE to complete a "fence-to-fence" cleanup of LANL by December 29, 2015. "Fence-to-fence" means removal and/or remediation of contaminants that reside in the environment at LANL. As part of the Consent Order, the State of New Mexico has identified four Material Disposal Areas ("MDAs") in TA-54. The site TRU waste storage and process facilities reside in MDA G. MDA G will undergo a phased closure, consistent with the Consent Order, scheduled to be completed by December 29, 2015. It will not be feasible, practical, or realistic to attempt to keep the TRU facilities operational in the midst of Area G closure activities. Therefore, the TRU waste management

capability must be reconstituted elsewhere onsite. The majority of newly generated TRU waste managed at the facility is associated with existing plutonium operations at CMR and TA-55. The facility will support all operations at LANL that generate TRU waste. The TRU Waste Facility Project is presently in design and is required irrespective of any action relative to the CMRR-NF.

22. If one were to visit TA-55 today, then one would see a significant amount of ongoing NMSSUP2 construction, a completed RLUOB facility, an area of prior excavation in which the CMRR-NF construction has been proposed, and a current expansion of an active parking lot to offset parking lost due to the construction of RLUOB and NMSSUP2, as well as for anticipated RLUOB staff. See Attachment 2. These activities were last analyzed in the 2008 LANL SWEIS. None of the ongoing construction activities are connected to the proposed CMRR-NF.

23. In addition, well drilling activities are presently occurring in the vicinity of Material Disposal Area C. See Attachment 2. This work is being performed as part of site characterization tasks in support of the Consent Order agreement with the State of New Mexico.

24. Temporary security lighting is in use during removal and reconstruction of the security perimeter as part of the NMSSUP2. This is on the northern most area of the Pajarito plateau, which is the closest to the public, whereas the proposed CMRR-NF site is on the opposite side of TA-55 (the southern side).

Importance of the Project

25. CMRR is a critical component of the Nation's ongoing efforts to modernize the Nation's nuclear infrastructure and to ensure a safe, secure, and effective nuclear arsenal over the long term. This is confirmed by the 2010 NPR, which provides a roadmap for implementing the President's agenda to reduce nuclear dangers and pursue the goal of a world without nuclear weapons, while simultaneously advancing broader U.S. security interests. See Attachment 3. According to the NPR, "[i]ncreased funding is needed for the Chemistry and Metallurgy Research Replacement Project at Los Alamos National Laboratory to replace the existing 50-year old facility . . . ." Id. at xv.

26. The 2009 America's Strategic Posture Report confirms the urgency of CMRR-NF construction. See Attachment 4. According to the Report, the existing CMR building is "decrepit" and is "maintained in a safe and secure manner only at a high cost." Id. at 50. The Report concludes that replacement of the CMR building is even more urgent than the replacement of a Uranium Processing Facility at the Y-12 Facility in Tennessee – another high-priority project. This is because the CMR facility "makes a direct contribution to maintaining intellectual infrastructure that is in immediate danger of attrition," and "a short-term loss of plutonium capabilities may hurt the weapon program more than a short-term loss of enriched uranium capabilities." Id.

27. Timely construction of the CMRR-NF is also critical to the United States' commitment to renew and strengthen the Nuclear Non-Proliferation Treaty ("NPT") and to enter into new treaty obligations, including the New Strategic Arms Reduction Treaty ("START") and the Comprehensive Test Ban Treaty ("CTBT"). The United States is resolved to meeting its

obligations to pursue nuclear disarmament under Article VI of the NPT and intends to make demonstrable progress toward this goal over the next decade. To ensure that the Senate can consider new treaty obligations, NNSA must fulfill its mission to modernize and maintain the Nation's nuclear weapons complex, and replacement of the aging CMR building is a critical component of this mission.

Effects of an Injunction

28. In a recent FY2011 Budget Assessment, NNSA stated that "[i]n order to support program requirements, CMRR-NF construction must be complete by 2020 and it must be fully operational by 2022." See Attachment 5. If NNSA is enjoined from pursuing project design until completion of the SEIS, the project schedule could be delayed by more than a year, as a result of the lengthy process of soliciting and selecting new contractors. See Declaration of Herman LeDoux, Federal Project Director for the CMRR Project at the Los Alamos Site Office of NNSA, ¶ 18.

29. Such a delay in the CMRR-NF Project schedule would have significant national security impacts. It would result in mission interruption and would require NNSA to reconstitute capabilities deferred by the reduced operations posture within the existing CMR facility, placing LANL missions and DOE/NNSA programs at further risk. In addition, commitments have been made as part of the NPR to address failing infrastructure, including CMR. These commitments would be abrogated if the project is delayed, with possible implications on foreign policy postures and at significant additional cost to the taxpayer.

30. Since 1999, NNSA has limited operations within the CMR building in an effort to minimize the worker health and safety risks associated with continued operations. See Declaration of

Donald L. Cook, NNSA Deputy Administrator for Defense Programs, Dkt. 9-1, ¶ 7. As long as LANL is forced to continue this reduced operations strategy, important characterization and chemistry capabilities will be unavailable to support mission requirements. Examples of such capabilities include materials characterization instruments and analytical chemistry techniques, all of which support the full mission suite at LANL that involves special nuclear materials.

31. The strategy NNSA has implemented to mitigate impacts from reduced operation of the CMR building is entirely dependent on a fixed start-up date for operation of the new CMRR-NF. The decision to suspend certain operations in the CMR was predicated on a 2018 CMRR-NF completion date with operations beginning in 2022.

32. I certify that Attachments 1, 2, 3, 4, and 5 are true and correct copies of documents used during the course of my usual business.

I swear under the penalty of perjury that the foregoing is true and correct.

Dated this 20th day of December, 2010, in Los Alamos, New Mexico.

Roger E. Snyder
Deputy Site Manager
Los Alamos Site office

Declaration of Roger E. Snyder

Attachment 1

Los Alamos
NATIONAL LABORATORY

Proceedings from CMRR Public Meetings

The following volumes and posters are available in pdf.

Volume 1 - March 9, 2006 (LA-UR-06-6199)
Volume 2 - September 19, 2006 (LA-UR-07-0684)
Volume 3 - March 14, 2007 (LA-UR-07-3583)
Volume 4 - September 26, 2007 (LA-UR-08-0357)
Volume 5 - March 25, 2008 (LA-UR-08-04500)
Volume 6 - September 16, 2008 (LA-UR-09-00620)
Volume 7 - March 10, 2009 (LA-UR-09-02749)
Volume 8 - September 23, 2009 (LA-UR-10-00676)
Volume 9 - March 3, 2010 (LA-UR-10-02173)

Agenda

Los Alamos NATIONAL LABORATORY EST. 1943
The World's Greatest Science Protecting America

CMRR Public Meeting

Thursday, March 9th, 2006

Fuller Lodge
6:30 – 8:30

6:30 – 6:45	Welcome Ground rules Briefing on Public Comment Provisions Background and Purpose Introductions	Rosemary Romero
6:45 – 7:15	CMRR Project Overview CMRR Environmental Aspects	Tim Nelson Steve Fong
7:15 – 7:30	Question and Answer	Rosemary Romero
7:30 – 8:25	Public Comment	Rosemary Romero
8:25 – 8:30	Requests for topics for next meeting	Rosemary Romero
8:30	Next meeting announcement and adjourn	Steve Fong

DOE Host: Steve Fong
LANL Technical Host: Tim Nelson
LANL Environmental Outreach: Lorrie Bonds Lopez, Debora Hall: 667-2211, envoutreach@lanl.gov

Agenda

Los Alamos NATIONAL LABORATORY EST. 1943

CMRR Public Meeting

Tuesday, September 19th, 2006

Fuller Lodge

6:30 – 8:30

6:30 – 6:45	Welcome Ground rules Briefing on Public Comment Provisions Background and Purpose Introductions	Ed Moreno
6:45 – 7:00	Project Overview	Steve Fong Tim Nelson
7:00 – 7:10	Environment, Safety & Health Update	Steve Fong
7:10 – 7:20	Overview of Air Permit Application	Bill Blankenship
7:20 – 7:30	Seismic Investigation Update	Mike Salmon
7:30 – 8:15	Question, Answer and Public Comment	Ed Moreno
8:15 – 8:25	Requests for topics for next meeting	Ed Moreno
8:30	Adjourn	Steve Fong

DOE Host: Steve Fong
LANL Technical Host: Tim Nelson
LANL Environmental Outreach: envoutreach@lanl.gov (Lorrie Bonds Lopez @ 667-0216, Debora Hall @ 667-4371)

Agenda

Los Alamos NATIONAL LABORATORY EST. 1943

CMRR Public Meeting

Wednesday, March 14th, 2007

Fuller Lodge

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, Environmental Protection	Tori George
7:00 – 7:30	CMRR Overview & Project Update	Craig Bachmeier
7:30 – 8:15	Question, Answer and Public Comment	Rosemary Romero
8:15 – 8:25	Requests for topics for next meeting	Rosemary Romero
8:30	Adjourn	Craig Bachmeier

DOE Host: Steve Fong
LANL Technical Host: Tim Nelson
LANL Environmental Outreach: envoutreach@lanl.gov (Lorrie Bonds Lopez @ 667-0216, Debora Hall @ 667-4371)

[Slide 3]
[ROSEMARY ROMERO]
Ground rules. I love ground rules. My children used to say that I was the queen of options, but they are pretty simple ground rules. I don't like too many of them, but they are simple. Listen respectfully. Share the air time with other participants. I encourage folks to look around to see who else is talking and share that time with each other 'cause we've got about an hour plus, but still it goes pretty quickly. Um, and hold your hand up and I'll call on you. What's not up here is, if you would please also say your name when you speak. This'll be, this is audio recorded, as you can see, or hear, rather. Um, and people do listen to the tapes. I heard somebody say earlier that the, it was very clear and, and uh, the only thing that was missing was that folks sometimes forgot to say who they were. Turn off your cell phones. I muted mine. Just because it's awful to hear those rings. Um, hopefully people, go back to the respect. If you are respectful, then there are no personal attacks. And then, speaking slowly and clearly, um, because we are audiotaping this evening.

[Pause]

[Slide 4]
[ROSEMARY ROMERO]
Sometimes it's difficult to read off of this, but I'm just gonna' read off the uh, the slide here. I'm losing it, I tell you, it's nap time. The background and purpose: why we're here this evening. This is the settlement allowing for air permitting to be segmented to match the phased project. So this is an update for folks on the project development and for public involvement. And I said earlier that this is the third public meeting, but there's other opportunities for people to respond via written comments also. But this is an opportunity to really hear from each other through the presentations, hear from each other, clarifications—sometimes there's miscommunication that occurs, so these public meetings are a great opportunity for people to have a dialog with each other. The parties that are included in this are the New Mexico Environment Department. Do we have anybody here from the Environment Department? Okay.

[GREG MELLO, LOS ALAMOS STUDY GROUP]
[They'll show up.]

[ROSEMARY ROMERO]
They'll probably show up?

[GREG MELLO]
[Inaudible]

[ROSEMARY ROMERO]
This was announced in the— I saw it in the *New Mexican* and the *Journal*, I believe, so this was announced for folks so it'll, hopefully others will show up. We don't have to ask for the Department of Energy, University of California, Concerned Citizens for Nuclear Safety. Any representatives in the audience?

[CRAIG BACHMEIER]
No.

[TIM NELSON]
So for Phase C. [Pause]—which is, will answer your question for ML-1. [Pause]
That has not been determined. That went out for a contractor, um, to go build that building yet.

[ROSEMARY ROMERO]
Okay.

[TIM NELSON]
There are alternative— You know, there's a number of things they are looking at, in the design phases, that's how to make the concrete.

[ROSEMARY ROMERO]
Great. Thank you. [pause] I'm gonna hold the mike here. Um, other questions from folks? And we can always come back. I'm sure there's more in the book.

[DON BROWN]
Yeah, there are.

[ROSEMARY ROMERO]
All right.

[GREG MELLO, LOS ALAMOS STUDY GROUP]
Let's see, I've got a couple.

[ROSEMARY ROMERO]
Greg, if you would say your name please.

[GREG MELLO]
Greg Mello.

[ROSEMARY ROMERO]
Thanks.

[GREG MELLO]
Um, is there, um, five. Um, is there, and I know the likely answer, but see if we can find an unlikely answer. Is there a publicly available mission analysis for, um, the, for all phases of the project that would kind of, that would, um, break down the building requirements by mission sub-element and enable us to see why the buildings are being built the way they are, and why the cost is what it is, and, so forth? And, so, for example, if the plutonium pit production mission, um, does not stay here, members of congress have suggested that this project is, um— well their phrase is "irrational," or "stupid," I think, both have been used by committee chairmen about this project. Um, "absurd" was another one that was used. But, if, so it would be reasonable for there to be a response to that to show that the mission elements

were robust with respect to possible changes of mission, um, and, so I would like to know whether something like that is available for us.

[ROSEMARY ROMERO]
Steve [Fong] should we give you the mike? And we'll get the other one for you [Craig].

[CRAIG BACHMEIER]
Steve Fong will tackle that one.

[STEVE FONG, PROJECT MANAGER, LOS ALAMOS AREA OFFICE, DOE]
Hi Greg. This is Steve Fong with the federal project team with NNSA. So Greg, what's publishly available, available publicly, that gets to your question, in terms of response to that, is the programmatic EIS [Environmental Impact Statement], which assigns the capability and that was 1996, and then the current draft SWEIS [Site Wide Environmental Impact Statement] of '99, and the proposed draft that's coming out. That's what's, uh, basically, uh, develops our mission need for this capability. So that's what we were relying on. There are other sub-tiered project-specific type of documents that go into detail—functional, operational type of requirements, programmatic requirements, but those aren't publicly available.

[GREG MELLO]
How? What class? Are they UCNI-ed?
Are they? What are, what is there? UCNI [unclassified nuclear information]?

[STEVE FONG]
UCNI. For the most part.

[GREG MELLO]
Okay.

[STEVE FONG]
When it gets down to that level, uh, when we get down to specifics.

[GREG MELLO]
All right.

[STEVE FONG]
But they're all summarized within our EIS documentation.

[ROSEMARY ROMERO]
Okay. You had other questions Greg?

[GREG MELLO]
Um, the, um the CMR makes, you mean, so the CMR is coming to the end of its life. PF-4 is also not as old a building, but it was run very hard in the 1980s and is now the subject of a reinvestment project, um, that the cost of which has not been revealed to congress yet. Um, it, it is being introduced to congress in phases, um, but it has some really scary things in there like electrical, mechanical, roof, um, and it looks to me like that is, I mean Paul Cunningham

used to say, we had $300 million in deferred maintenance at TA-55. Um, so, is there a document describing the TA-55 reinvestment project which can be made available so that we can see the full scope of the ancillary projects that give meaning and make it possible for the CMRR to fulfill its mission?

[STEVE FONG]
This is Steve Fong again. Um, Greg, I am not aware, being not responsible for those activities on the [TA-]55 reinvestment project. There is a project, you are correct, to do, um, and work off that deferred maintenance as you were speaking of. The— I believe, and I may be wrong, but the, the activities are summarized in the updated SWEIS that's going on at this point. Um, I would check there for that information. I do not know of any other detailed documents that would summarize what's going on out there. Tim [Nelson], do you know of any?

[TIM NELSON]
The only other thing that might be out there, which I'm sure you're familiar with Greg, is the construction project data sheet, the stuff that goes to congress in terms of dollars.

[STEVE FONG]
Yeah, that's—

[ROSEMARY ROMERO]
And the information on the EIS or SWEIS are probably on line. He was asking for documentation, so they're probably somewhere where you could find them. I think that's what you referred to Steve?

[STEVE FONG]
That is correct. This is Steve again, and I know Greg probably knows where to get that

[ROSEMARY ROMERO]
Okay.

[STEVE FONG, CONTINUING]
and if he doesn't, I'm sure Greg will contact me.

[ROSEMARY ROMERO]
Great. I was just confirming. Thanks.

[UNIDENTIFIED PERSON]
[Inaudible words]

[GREG MELLO]
I don't think that information is in there,

[ROSEMARY ROMERO]
Okay.

[GREG MELLO, CONTINUING]
but I will triple check. Um, okay, I have one, then, the last three questions. One of 'em's about cooling in Phase C, and one of 'em is, two of them are [about] ventilation. Um—

[CRAIG BACHMEIER]
Phase C.

[GREG MELLO]
So phase, I guess cooling first. Ah, how is the vault going to be cooled and how is the cooling going to be robust with respect to, um, power failures or other natural disasters.

[STEVE FONG]
Yes, there is cooling in the vault, that is still being assessed and alternatives are, are under way. So I think all alternatives are, are fair game, but I'm not sure if I'd go into the details of any of that stuff. But, indeed that has the attention of our safety analysts as well as the Defense Board to make sure that we come up with the right design solution. So, we're still coming up and weighing alternatives in that area.

[GREG MELLO]
Okay. [Pause] And then,— You are probably, I don't whether you were— There was a project involving a vault that eventually failed because of a lack of a good part, lack of a good cooling solution that, that was compatible with security, and, so forth.

[ROSEMARY ROMERO]
So Craig, is the encouragement that while alternatives are being developed that really look carefully at the cooling because of other examples?

[GREG MELLO]
Yeeesss. Um, that, a lot, I think about a $166 million have already been spent on Phase C, and um, the, we don't have solution to the problem which doomed the PF-41, ah, after expenditure of many millions there, and, in general, because the site is cramped, this leads to the idea of cramming more work and more material in a small space, which raises cooling loads and raises concerns about criticality in seismic events. The preferred solution that, at the time that we looked at the nuclear materials storage facility, was, all involved basically spreading plutonium out in a larger area. But this site is a small area, and so it raises, it makes it a difficult design and, um, that's, anyway.

[GREG MELLO]
The third, the last two questions about ventilation. Um, 8.4 grams of plutonium-239 is approximately 10^5 fatal lung cancer doses, and, so, it's a dangerous material and presumably there will be some sort of ventilation zoning in the building even though it was described as commercial, but really surely it's much more than commercial and, um, so, that's my first question. The second question is: will this ventilation be safety class and is the Defense Safety Board, after I know there've been many conversations, dozens and dozens, are, are they happy, ah, with, fully happy with the ventilation system? I'll be at the hearing on the 22nd, so I guess I could ask'em, but, um, [do] you think they are happy?

[STEVE FONG]
I'll let Craig answer the first part of that question.

[Tape being turned over. Several words missed.]

[TIM NELSON]
.... um, the Defense Board interest in the rad lab ventilation system essentially, not the issue that you're alluding to—

[GREG MELLO]
I see it.

[TIM NELSON, CONTINUING]
which is really related to the nuclear facility.

[GREG MELLO]
Okay. Thank you.

[TIM NELSON]
Um, in the context of the rad lab— This is Tim Nelson. In the context of the rad lab and the ventilation system, we've actually exceeded the requirements of the rad lab. What is normally expected, if you went to DOE requirements, stuff like that, by putting in a HEPA [high efficiency particulate air filter] filtration system, similar to what is in the nuclear facility, and it does have zones of negativity for ventilation. That's not a requirement.

[ROSEMARY ROMERO]
Okay.

[TIM NELSON]
That's correct.

[ROSEMARY ROMERO]
Do you want to add anything Craig?

[CRAIG BACHMEIER]
No.

[ROSEMARY ROMERO]
Okay.

[CRAIG BACHMEIER]
That answered Greg's question.

[ROSEMARY ROMERO]
All right.

[JONI ARENDS]
About the measurements, the measurements, you know, and if you've taken the measurements in those areas. [Aside to Scott Kovac.] What's the word, Scott?

[TIM NELSON]
This is Tim again. I understand your question. And that's really, um, I'm gonna say, a little less, CMRR project-specific type of response.

[JONI ARENDS]
But we brought up this—

[TIM NELSON]
—the institutions can certainly—

[JONI ARENDS]
Yeah.

[TIM NELSON]
I would expect, release that information at some point in time.

[JONI ARENDS]
And we missed Mike's presentation last time because the draft LANL SWEIS comments were due on the night of the meeting and we would ask that these meetings be thought out a little bit more so it's not our third public meeting of the day. Um, and then it's not on a day when comments are due on an important document.

[ROSEMARY ROMERO]
Okay.

[JONI ARENDS]
We would appreciate that, that there be a little bit more care for the, for scheduling these meetings.

[ROSEMARY ROMERO]
So, I've got— Greg, also with a followup.

[UNIDENTIFIED PERSON]
[Inaudible words]

[ROSEMARY ROMERO]
Okay. Thanks Joni. [Pause] You just have to say your name again, Greg.

[GREG MELLO]
This is Greg Mello. Um, I'm not gonna' come up with the special words either, but I'm just gonna concur with the importance of it, and— There was a lecture by LANL's lead seismologist in public, uh, where he talked about the findings of the subsequent research since the previous probabilistic seismic hazard assessment, um, and the probability of

earthquakes, of magnitude greater than 6.5, um, that was discussed, um, if you sorta process the numbers slightly, it's, it's, I got, um, I mean, it's slightly interpretive—

[ROSEMARY ROMERO]
Um hm.

[GREG MELLO, CONTINUING]
—on my part, but it's about 27 times more likely than in the CMRR EIS. And that's more than an order of magnitude, between one and two orders of magnitude, and the, so there are questions about the adequacy of the, certainly the environmental impact statement, and the, the DNFSB [Defense Nuclear Facility Safety Board] has brought up that the project is, there's some risk to the project for going ahead with design prior to the conclusion of the probabilistic seismic hazard assessment. The previous one being so very many years old, I think '96 or, somebody help me—

[GREG MELLO]
'98. Yeah.

[TOM WHITAKER]
[Inaudible before gets mike]

[TOM WHITAKER]
I'm Tom Whitaker. And—I've got some info—kinda working on the seismic hazards assessment update. Ah, we should be having a final report sometime in the May/June timeframe. So there's draft final reports going out for review. We're following a standardized process that DOE has developed with NRC [Nuclear Regulatory Commission], with independent oversight, independent review, as well as informal participation by the Defense Board. So we've had a full vetted process that we've just documented. The report should come out, probably, like I said, May/June time frame. And my understanding is that the report will actually talk, it'll be four or five different locations at LANL will actually have ground motion data, you know, accelerations to earthquakes at each location. We'll have one at TA-16, TA-3, TA-55, and CMRR specific. And as far as the, uh, preliminary data has been generated for the report for the CMRR project, so, the design input for seismic, um, we have a draft final version that is provided to the design team, so the most recent information on the seismic hazards, eh, will be incorporated into the nuclear facility and SFE [special facilities equipment] design. So the information is being incorporated to address those concerns.

[ROSEMARY ROMERO]
Okay. Sounds like the September meeting is gonna be lots of information coming forward. All right. Others? Yes?

[DON BROWN]
Your comment—

[ROSEMARY ROMERO]
You just have to say your name.

[JONI ARENDS]
Well, what document was it? Was it the draft SWEIS that said that you were gonna bring in a whole bunch of sealed sources? And that they were gonna to be stored in the CMR? Like a whole bunch of them?

[TIM NELSON]
I'm not aware of that. I'm know of what sealed sources are, but I'm not aware of a program to do that. That's, I, it could be—

[JONI ARENDS]
Yeah.

[TIM NELSON, CONTINUING]
—because I don't know everything that's going on at the Lab.

[JONI ARENDS]
Yeah. Yeah. Well, it's the Off-Site Source Recovery Program.

[TIM NELSON]
Right.

[JONI ARENDS]
And something said recently like you were going to bring in a whole bunch of them and store them at the CMR. And then there was other talk about doing the RH [remote handled] work in the CMR?

[UNIDENTIFIED PERSON]
Some GNEP [Global Nuclear Energy Partnership]?

[JONI ARENDS]
Or some GNEP?

[UNIDENTIFIED PERSON]
Hot cell?

[JONI ARENDS]
Yeah. Some hot cell work with the GNEP? So, you know, let's just put that on the table that it doesn't look like the CMR is going away. It would be good to have an update of the activities at the CMR at the next meeting.

[ROSEMARY ROMERO]
Okay. 'Cause it doesn't sound like we're gonna get it resolved here; but the next meeting. Okay. All right.

[GREG MELLO]
Let's [becomes inaudible]

[JONI ARENDS]
Don, did you want to renew your question about what the life of the CMR was designed for?

[Don Brown]
Uh, yeah. I'd like to get some results—[speech becomes inaudible]

[ROSEMARY ROMERO]
Oh, hold on Don. Let me—

[DON BROWN]
—with the life span of the original—

[ROSEMARY ROMERO]
Wait a second, because we do record this, and

[DON BROWN]
Oh.

[ROSEMARY ROMERO]
So that's why it's important to make sure that we hear the question. And who you are again. Sorry.

[DON BROWN]
This is Don Brown. And, and Greg [sic, Craig], maybe you or someone with the NNSA could take a look and see what that original lifespan was for that facility and, you know, I think we'd all like to feel, ah, secure, that, that we have not expanded that life, that lifespan and that we might be at risk if we try and continue operations.

[TIM NELSON]
So this is Tim Nelson again. In the 1999 risk management strategy, and Craig had this on his slides but he didn't point it out. Um, the planned end of life currently is around 2010 for the CMR Building. Um, with respect to the operations that it has right now. We know that the CMRR nuclear facility can't be build by 2010. That's one of the reasons why the project was split up into multiple phases, such as the rad lab, the radiological lab, the RLUOB that Craig's working on, which was the majority of the presentation tonight, actually will be operating by 2010, and some of the operations from the CMR Building will be moved to that building, um, such that we planned if the Laboratory's intent is reduced, the operating footprint of the existing CMR Building, and reduce that as much as possible until the CMRR nuclear facility comes on line.

[ROSEMARY ROMERO]
You had a followup to that?

[GREG MELLO]
I did. I think that there's, uh, not, um— There's two things being talked about and they are kinda being conflated. And so, when they are talked about the next time maybe they could be separated. Um, they will have to do with the future of the CMR Building. Um, it could operate as a nuclear facility. And it could operate with different amounts of material at risk,

so that's one type of question about the future. But then it also could operate as a radiological facility and not have more than 8.4 grams of plutonium-239 equivalent. That would be another type of future for the CMR Building, in which case it would somewhat compete with the mission of the rad lab, [for] which we now have an excavation. And then in previous plans it's also been discussed to use the CMR Building for other purposes altogether, um, for an office building, um, for biological work that was also at one time discussed, and so, I guess, this is really to just agree with Joni [Arends] that there actually have been a lot of possible uses for the CMR Building, um, discussed in some relatively recent time frame.

[JONI ARENDS]
So, my understanding was, the next meeting there's going to be more of an update. Is that true?

[TIM NELSON]
Um, I understood what you said. I didn't really get a question out of it.

[GREG MELLO]
Okay, the question is we should, that we're a little bit confused about all these different possibilities—

[UNIDENTIFIED PERSON]
Right.

[GREG MELLO, CONTINUING]
—for the CMR Building and we need it broken out in, I would like it to be broken out in detail. And I don't know, um, I know that we're tending at this point to talk about the next meeting. This is not useful for me.

[ROSEMARY ROMERO]
Yeah.

[GREG MELLO]
I would like all the answers to all these questions now, really. Um, the CMRR EIS was kind of, ah, ya' know, it had 33 different alternatives if you added 'em all up together, it described basically nothing. Ah, so that it was a, you know, kinda this broad envelope approach to EIS that drains the specific content out and follows the letter of the law without actually providing very much useful information whatsoever. So there's a huge information gap which we need to cover, and I know that there's this framework of these quarterly meetings, and so forth, but it isn't enough.

[ROSEMARY ROMERO]
Right. And here's what I've captured, it is, we've got it recorded, but there's some things I didn't think there's answers to that I wanted to make sure that the next meeting, that if we haven't answered it here, and I'm hearing, let's get as much as we can answered here, but if we can't, then there's more information that needs to come forward. There's the next quarterly meeting, but then you're hoping that there'd be even more in between 'cause September is pretty far down the road? Okay.

[GREG MELLO]
You know, by the time you meet quarterly, all the decisions are made and it just becomes a kind of a spectator sport.

[ROSEMARY ROMERO]
Okay. So, I don't know if there was an answer. Steve?

[TIM NELSON]
I can answer—

[ROSEMARY ROMERO]
Okay. Great.

[TIM NELSON]
So one of the things you brought up was using the existing CMR Building as a radiological facility. Um, actually, um, to go back to some factoids associated with the existing CMR Building. It's the largest building at the Laboratory. It's 550,000 gross square feet. To use that building as a radiological facility based on the state of where it is now is not a good business case decision. It actually would cost a lot more money, uh, to upgrade that facility to continue to use it for some extended time period. If you wanted to compare CMRR radiological facility of a design life of 50 years, it's not economical to use that building as a radiological facility.

[ROSEMARY ROMERO]
Steve?

[STEVE FONG]
Very good. I think I also understand your question. This is Steve Fong. I just wanted to state that in the Record of Decision, as well as in our last Critical Decision, NNSA has gone on record to say that we will D&D that facility once the CMR facility, CMRR facility comes on line. So at this point, there is a Record of Decision stating that we will not continue operations in this current CMR facility. Things may change, of course. There might be debate. But, that's our current plans.

[ROSEMARY ROMERO]
Okay.

[GREG MELLO]
Yeah, yeah.

[STEVE FONG]
And also, this is a CMRR project update. We are focused on this capital investment that's outlined here. Um, you're just catching a bunch of project guys talking about programmatic stuff that we are aware of, but we, we don't spend our day-to-day, basis y'know trying to figure out what's going on in the CMR facility.

[ROSEMARY ROMERO]
Craig, could you just say who you are so we don't think it's Greg Mello on the tape?

[CRAIG BACHMEIER]
This is Craig. Craig Bachmeier.

[ROSEMARY ROMERO]
Thank you. Thank you. Only 'cause we kept looking at Greg. All right. Others?

[Pause]

[ROSEMARY ROMERO]
Here's what I've been doing. As, as folks know, I'm gonna put this mike back here. Um, these sessions are recorded and they are actually, um, written up verbatim. And so some of the cryptic notes I took were just to refer back, when we look at some of the things that we need to pull out of, there's followup, and I know Deb's [Hall] been taking really good notes also.

[ROSEMARY ROMERO]
Some of the issues for the September meeting. I heard a couple of things, which are, there's the September meeting which is a followup, which is one of the public meetings, and that will be updating folks. Greg [Mello], I also heard there's, that's way down the road and maybe there's something in between and I'm not sure if that's possible. But, um, one of the things that I always do, was trying to capture some of the things that needed to come back to the September meeting. Um, Joni [Arends], the issue about scheduling the September meeting so it doesn't coincide with other meetings, may be a little hard to judge now, but this is something we should keep an eye out for, is if there's, if there's a date that's like a Tuesday rather than a Wednesday that makes a difference on the number of meetings that folks attend, that would make a difference. Um, I'm sure there's others in here, but I wanted to make sure that, here's some of the other ones, was, um, an update of the next, for the next meeting, one of the updates would be on the timeline or schedule. You know, where are we? And I'm sure that folks know that that's one of the things that needs to come back. Um, the lifespan of the CMR Building. I wasn't sure if that was quite where you were heading Don [Brown], but it was more information on this issue of lifespan, CMR, where we are now, and I think there's been quite a few questions related to that. There's others in here. Anything that I'm gonna pull out. But others, other things that we might talk about in September, agenda items? Don?

[Pause]

[DON BROWN]
I would like to simply ask, and then next meeting, y'know—

[ROSEMARY ROMERO]
Thank you.

[TIM NELSON]
So what I said was, we are doing criticality analysis, right? Um, we would not, we would not, um, I'll say, think that we have, on a normal occurrence, a criticality event. But that's a different discussion. So, a criticality event is not an explosive situation. You don't blow things up. It's not a thermonuclear weapon, if you will. Um, and if you looked at the events historically that have occurred relative to criticality, um, the emissions associated with that are essentially more locally contained, but relative to the question that you are asking, the structure and the other parts of the facility that do containment, um, would, would essentially limit any off-site dose consequence, which I think is what you're really asking.

[DON BROWN]
Yeah, that's, that's a part of it. And the reason I asked that question, ah, I was kinda surprised when we looked at TA-18. The risks of TA-18 have been removed. But I was, you know, from my background in nuclear, I was surprised that the Defense Board's own estimates showed a thousand rems off-site exposure at the center of White Rock that you did not have a, some type of a containment structure that, which would mitigate those consequences on TA-18. Therefore, I ask the question today, if we have the capability of a criticality incident, which could occur at the CMRR building, and not knowing what those values would be, uh, do you have any provisions for the design, especially in Phase 3, or B or A, if they could—if those, if that facility should have some type of a containment structure. That's my question.

[TIM NELSON]
We do.

[ROSEMARY ROMERO]
Okay. And I'm not adding it to the next-time list. It's what it sounds like. Greg?

[GREG MELLO]
Um, one for the next time, and then I have a question for—

[ROSEMARY ROMERO]
Okay.

[GREG MELLO, CONTINUING]
—for the next time, um, I wasn't satisfied with the answer that the functional requirements for, that are determining the nature of these building were not public information. I think they should be. And I think they can be. And I think a way, even though they may be at the moment contained in documents which are UNCI, uh, when I worked at the Environment Department, every well log that came from Los Alamos was stamped "UCNI." And, uh, in my office they all went in the same drawer. But um, we, I think we need to think about how to communicate the functional, the detailed functional requirements and operations within these buildings, and so that we can know what's going to happen in here, and whether it should happen, and why it should happen. You know we've ah, so—

[GREG MELLO]
Then my next question, my real question for tonight, is, this: the rad lab building would house 350 office spaces. How many workers are anticipated to be in the nuclear facility, and how many workers are in, um, the other buildings of PF-4 approximately, today?

[TIM NELSON]
This is Tim Nelson again. Um, essentially analysis associated with the existing CMR Building showed about 350 people in that building. That's where the office number came from. So there is a lot of those people that are in support functions. Secretaries, administrative, and stuff like that. So it's not 350 people that would necessarily work in the nuclear facility building. But that would give you an upper limit.

[GREG MELLO]
So, 350 for both? For both buildings?

[TIM NELSON]
Yeah. The people's office space is actually in the rad lab. We didn't put their office space in the nuclear facility.

[GREG MELLO]
Okay. And today, in PF-4 there are? [Pause] And, but there's all these other, there's an office building to the north, and— It's kinda complicated—

[TIM NELSON]
Yeah. I understand your question. I'm, um, I would only be guessing to say what the number is. It's, I would say more, probably would be the best I could do.

[GREG MELLO]
Thank you.

[TIM NELSON]
There's more people at TA-55 than what we're putting [in there].

[ROSEMARY ROMERO]
Good guess. All right. Joni [Arends]?

[JONI ARENDS]
Ahm, so Greg, —

[ROSEMARY ROMERO]
You just have to say "Joni Arends."

[JONI ARENDS]
Joni Arends. Ah, Greg Mello. They said at the, um, during the negotiations for these meetings to be set up that they were gonna to bring people from, in the office space at [TA-]55 over as well. Into this office building. So, but I don't know how many people are in those, in those buildings. But, um, Rose, Rosemary, so it looks like, um, I wanted to say

thank you for your, for your work, because it appears that the tension that we had before about acknowledging the agreement that, um, brought these meetings forth—

[ROSEMARY ROMERO]
Yeah.

[JONI ARENDS, CONTINUING]
—has changed. And we appre— we assume that you've been instrumental in that and we appreciate it very much. And we appreciate getting the documents, the PowerPoint® and the, um,—

[ROSEMARY ROMERO]
Good.

[JONI ARENDS, CONTINUING]
—summary from the September meeting about a month ago. So, that was really great. And so we acknowledge the work of the Laboratory to move things forward, um, in terms of public outreach.

[ROSEMARY ROMERO]
Good.

[JONI ARENDS]
Thank you.

[ROSEMARY ROMERO]
Thank you. Appreciate it. All right. So it looks like September is gonna be a really full schedule. And my sense is that we'll bring other people in as we need to. You know on the agenda, by golly I'm sure that you'll be part of the agenda, um, in September. But it seems that, um, as we start to come up with information we'll build the agenda with maximum input. I think there's enough time. Um, I think Lorrie [Bonds Lopez] has also done some conference calls with folks, but there's plenty of time to check in to see if there's other things that we need to add to this list. Um, is it advertised well enough for folks to see it? I mean, I think a notice goes out, and then there's advertisements in the newspaper, so, that seems to be working. Okay.

[UNIDENTIFIED PERSONS]
[Inaudible]

[ROSEMARY ROMERO]
No? Nope?

[GREG MELLO]
No.

[ROSEMARY ROMERO]
No. Okay, so what else would work, Greg?

[GREG MELLO]
The *Los Alamos Monitor* didn't know about this meeting.

[ROSEMARY ROMERO]
Okay. So part of our homework is to figure out Los Alamos—

[TIM NELSON]
[Inaudible]

[ROSEMARY ROMERO]
The reporter was here.

[GREG MELLO]
[Inaudible]

[ROSEMARY ROMERO]
Okay.

[GREG MELLO]
Because I told him.

[ROSEMARY ROMERO]
Okay.

[GREG MELLO]
Today.

[ROSEMARY ROMERO]
Okay. We will remind earlier rather than later. Okay, good. That's good to know. Thank you. All right. Anything else from folks? There is an evaluation. I'm hoping that you signed in. There's an evaluation that is helpful to us, to help guide the meetings. So I hope that you'll fill that out. Um, any closing words? Really appreciate the presentations, Craig [Bachmeier] and Tori [George]. Um, and others, um, as, who interjected as you needed to. So, anything else from folks before we close? Greg?

[GREG MELLO]
Um, I'd like to thank all of you and the project people too. You know, we don't want you to build this project, but we do appreciate that you are trying to do the best you can under the circumstances. And, um, when I lived in Livermore as a kid, my dad was project engineer on various projects at Livermore, and so this is a long time for our family. Um, and we, the other side of that, is we all live in a quite absurd situation and have to deal with the absurdity of our work in, from many different directions, relative, say to, global climate change. And so we're all in different aspects of this together. And I know that you don't take it personally even though we don't wanna—our organization doesn't want this building to be built.

Agenda

Los Alamos NATIONAL LABORATORY EST. 1943

CMRR Public Meeting

Wednesday, September 26th, 2007

Best Western "Hilltop House", Los Alamos, NM

6:30 – 8:30

6:30 – 6:45	Welcome Ground rules Background Introductions	Ed Moreno
6:45 – 7:00	CMRR Project Overview & Update	Rick Holmes
7:00 – 7:30	CMRR RULOB Project & Environmental Update	Tom Whitacre
7:30 – 8:15	Question, Answer and Public Comment	Ed Moreno, Rick Holmes
8:15 – 8:25	Requests for topics for next meeting	Ed Moreno
8:30	Adjourn	Rick Holmes

DOE Host: Steve Fong
LANL Technical Host: Tim Nelson
LANL Environmental Outreach: envoutreach@lanl.gov (Lorrie Bonds Lopez @ 667-0216, Debora Hall @ 667-4371)

Agenda

Los Alamos NATIONAL LABORATORY EST. 1943

CMRR Public Meeting

Tuesday, March 25th, 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

DOE Host: Steve Fong
LANL Technical Host: Tim Nelson
LANL Environmental Outreach: envoutreach@lanl.gov (Lorrie Bonds Lopez @ 667-0216, Debora Hall @ 667-4371)

Agenda

Los Alamos NATIONAL LABORATORY EST. 1943

CMRR Public Meeting

Tuesday, September 16, 2008

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

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

■ Geotechnical, Structural, Seismic & Engineering	T. Whitacre, M. Salmon
■ Project Information & Web Site	G. Drexel, A. Orr
■ Environment	T. Ladino, N. Seguin
■ Construction, Safety & Quality	S. Overton, T. Wilde
■ Open Table for Settlement Agreement Parties	

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

7:00 – 7:30 CMRR Project Overview & Update — Mark Dinehart, Gilbert Drexel

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

8:25 – 8:30 Closure & Adjourn — Carl Moore, Facilitator

CMRR Public Meeting

Tuesday, March 10, 2009
Best Western "Hilltop House", Los Alamos, NM
6:30 – 8:30p.m.

6:30 – 6:40	Welcome	B. MacAllister
6:40 – 7:10	CMRR Project Presentation	
	• Project Overview and Background	S. Fong
	• Project Update	R. Holmes
7:10 – 7:30	Questions	B. MacAllister
7:30 – 8:00	Settlement Parties Presentation	Settlement Parties
8:00 – 8:25	Questions	B. MacAllister
8:25 – 8:30	Closure & Adjourn	B. MacAllister

I'm Susan Terp. I'm with the Environmental Protection, Risk Reduction Office.

[TRISH WILLIAMS-MELLO, LOS ALAMOS STUDY GROUP]
Trish Williams-Mello with the Los Alamos Study Group.

[GREG MELLO, LOS ALAMOS STUDY GROUP]
Gregg Mello, Los Alamos Study Group.

[UNIDENTIFIED PERSON]
Thank you, Greg.

[DAVID FUEHNE, ECOLOGY &AIR QUALITY, ENVIRONMENTAL PROTECTION DIVISION, LANL]
I'm David Fuehne with the Lab's air emissions monitoring program.

[EARL DUDA, LOS ALAMOS RESIDENT]
Earl Duda. I'm a resident of Los Alamos.

[BILL SLOAN, CITIZEN]
Bill Sloan. An interested citizen.

[TAUNIA WILDE, CMRR PROJECT]
Taunia Wilde, the CMRR Project.

[ROGER SNYDER, ACTING DEPUTY SITE OFFICE MANAGER FOR BUSINESS, ENVIRONMENT, AND SECURITY, LASO, NNSA]
Roger Snyder, here with the NNSA Site Office.

[DAVE JANECKY, ECOLOGY AND AIR QUALITY GROUP, ENVIRONMENTAL PROTECTION DIVISION, LANL]
Dave Janecky with the Ecology and Air Quality Group, LANL.

[TERRY WEBB, CMRR PROJECT]
Terry Webb. I work on the project at the Lab and am also a citizen of Los Alamos.

[UNIDENTIFIED PERSON]
Thank you Terry.

[BRUCE MACALLISTER, FACILITATOR]
Have we missed anyone? [Pause] Well, thank you for showing up this evening and we've got one other person. How can we forget?

[JONI ARENDS, CONCERNED CITIZENS FOR NUCLEAR SAFETY]
Joni Arends, Concerned Citizens for Nuclear Safety.

[STEVE FONG, PROJECT MANAGER, LOS ALAMOS SITE OFFICE, DOE]
Good evening. Um, the CMR[R] project. Well, first, about the acronym. Chemistry and Metallurgy Research Building replacement project. CMRR. And we'll be using "CMRR" throughout this discussion. Uh, CMRR is a major systems acquisition. It's a large project for this site. We haven't seen anything of this sort, this size, for quite some time.

[STEVE FONG]

There's a component in Wing 9 called Large Vessel Handling, that, um, is included in the scope of the CMRR Building. That the project is, essentially in the program requirements document, requested to provide space to do large vessel handling. But the hot cells, which you might be familiar with, are not in the CMRR project, as an example.

[SCOTT KOVAC]
Thank you.

[STEVE FONG]
I think there was one more slide. Yeah.

[RICK HOLMES]
One more slide.

[STEVE FONG]
Yeah.

[RICK HOLMES]
The other question that, that came up that we included in your package is on the, the likely schedule of what we know today, and again this is a best estimate, ah, depending upon how fast funding flows and, and other decisions that might be made. I think the message here is that the, the preparation of the air permitting for the Lab's new source review, and then, included in that would be a batch plant for concrete to provide to the project, because the project needs a fairly significant amount of concrete at a fairly significant delivery rate, which that capacity does not yet exist on The Hill. And so, because of that, and for control, uh, we would put for the duration of the project, the, a batch plant in. And so that application would go in parallel with the laboratory process, or separate from it if one of those two gets changed. The bottom line is that, that preparation and discussion would occur sometime next year, based upon the, based upon the schedule we have. And in the input for construction of the building would occur late in calendar year '10, late next year.

[Pause]

[GREG MELLO, LOS ALAMOS STUDY GROUP]
Just another angle— Oh, Greg Mello, Los Alamos Study Group. Just another line of questioning that gets at the relationship between the two, um, buildings, the old one and the new one. Um, at the CMR, uh, we, the material at risk, material present in the building, let's say, in kilograms of plutonium, is in the single digits, let's say? Is that, you can't say, right? Um, how would you—

[RICK HOLMES]
I don't know what's in CMR.

[GREG MELLO]
Can, how would we characterize the number of orders of magnitude difference between the plutonium in the new building and the plutonium in the old building? I have three orders of magnitude. Is that about right?

[RICK HOLMES]
I, uh, think that's more a Tim—?

[STEVE FONG]

Yeah. It's probably more of a Tim question, but, to say that the CMR facility was currently designed, was designed as a nuclear facility in its own terms. And the standards and how you categorize them have changed over the years. We're replacing that, that old, the nuclear level of categorization in the CMRR facility. And what's, what's new, new capability in the CMRR facility, are vault spaces, and what you saw there, and which we've outlined in our, in our environmental impact statements, is six metric tons that we are going to store in the CMR[R] facility, CMRR facility. I have to get one more "R" out. I have to apologize. But, uh, Tim [Nelson], did you want to add to any more of that?

[TIM NELSON]
Tim Nelson. So, um, I'm gonna iterate a little bit of what Steve [Fong] said to try to answer your question. And, essentially the CMR Building was Security Cat-I, Hazard Category 2 facility. As the Laboratory and NNSA recognized the limitations of that building, relative to safety, they've reduced the quantities of material substantially, which is essentially what you are reflecting in your question. Um, but the charters of the project is "replace that original capability," which is in a Security Category I, Hazard Category 2, um, kind of nomenclature. In the EIS [Environmental Impact Statement] document, the six metric tons, total, is the limit in the building.

[UNIDENTIFIED PERSON]
Um hm.

[GREG MELLO]
Would it be, um, I mean, Scott [Kovac] brought out that some of the CMR's shut down now. Um, and, we keep on being able to certify the stockpile, and do other things that the Laboratory's supposed to do. Wouldn't you say that the CMR, excuse me, the CMRR, ahm, reflects more a replacement of the aspirations, the original aspirations for the use of the CMR Building, rather than it's current level of use?

[TIM NELSON]
So, I'm gonna turn that over to NNSA. You're actually asking for an opinion.

[UNIDENTIFIED PERSON]
Um hm.

[STEVE FONG]
For one, you have to always remember, we're the project. And, uh, there are programmatic requirements we're assigned by, at a headquarters level, and this information is analyzed and discussed. What is needed in terms of its work, its support capabilities, that, uh, the outside agencies that we support, uh, we try to meet their, their demands and their wants. Uh changes. Uhm, there's also— we also have to support, not only the nuclear weapons complex, but we hafta, we're the main chemistry support for the entire Laboratory. So anything that's nuclear chemistry, this is the facility that's gonna take, that is gonna take place. Even just with that mission, just the current mission of maintaining, uh, doing the surveillance, and doing the chemistry at this facility, you need this floor space. Now I say that. I'm not the one, I'm not the program that's there. I do know that our program has gone through many validations to assess that. Somebody might say, "Well, how many would you need to —if you were gonna just build one pit,— support?" We don't do that manufacturing in this facility. We simply support it. But then again, the floor space does not change. We find that, after you start getting up into the, the tens, or so, and that's well beyond what we're at, then you gotta start modifying looking at the floor space. But I'm not even gonna go there. I mean, that, it's just, we are the same mission that was assigned to us at the onset. Now, I'm probably bouncing all around this question, Greg [Mello], but, uh, again, the floor space has been validated. It's been validated to meet the requirements that have been assigned. It's just not me, from a project guide, but we had independent folks that are— that look at the needs, the needs of the Department [of Energy], the needs for NNSA, and they have validated that our floor space is judicious. It's not overly

extreme in terms of amount of square footage. They think it's about right for the current missions that have been assigned to NNSA. Now that's about all I can really say, being a project guy. And if you wanna pursue this further, I think we probably need to get some of the, the mission folks on it. Okay. That's about as far as I can go on that.

[GREG MELLO]
Okay.

[BRUCE MACALLISTER]
Before I take another question, uh, we kinda segue-wayed rather seamlessly into the questions? Are we okay?

[STEVE FONG]
We're good.

[UNIDENTIFIED PERSON]
Okay. So—

[STEVE FONG]
We're good.

[UNIDENTIFIED PERSON]
This is for the group—

[BRUCE MACALLISTER]
Sir?

[JAY COGHLAN, NUCLEAR WATCH NEW MEXICO]
Thank you. Um,

[BRUCE MACALLISTER]
Your name sir?

[JAY COGHLAN]
Yeah. I'm Jay Coghlan with Nuclear Watch New Mexico. Um, I came in late, so forgive me if, uh, if my question's already been asked. So, Steve [Fong], I heard you loud and clear, you know, you got the CMRR nuclear facility essentially sized to requirements. Um, takes no genius to surmise that requirements are probably gonna change. Ah, and perhaps change dramatically. Um, now specifically, to give credit where credit's due, I think NNSA made a wise decision to postpone expanding pit production until the Obama administration conducts a, a new nuclear posture review. So, to get to the sizing, and why you need a nuclear facility at all, um, correct me if I'm wrong, but I believe the main missions for the nuclear facility would be materials characterization and analytical chemistry in support of pit production at PF-4. So, Tom D'Agostino [Undersecretary of Energy for Nuclear Security and NNSA Administrator] wrote to the Defense Nuclear Facility Safety Board that materials characterization has already been moved to PF-4. To get to my specific question, why can't analytical chemistry also be moved to PF-4? Especially, this is my understanding, but each pit that is produced can require up to a hundred AC [analytical chemistry] samples. So if you are not expanding pit production, the need for analytical chemistry goes down exponentially. So all of this circles around to, what's the true need for the nuclear facility?

[TIM NELSON]
... management activities, materials disposition, which would be ARIES, those kinds of programs. Nonproliferation programs, uh, nuclear forensics would be an example of that. There's your materials and manufacturing technologies which have to do with pit manufacturing. Stockpile management, which has to do with certification of the stockpile. And, in general, nuclear materials. Handling, processing, and fabrication. You could put actinide R&D [research and development] in there as well. So, I can take one of these lines out. Pick one, pick this one, which is the one that you suggested, but I still need the analytical chemistry and materials characterization to do these other activities.

[JAY COGHLAN]
All of it?

[TIM NELSON]
Sure. Okay.

[JAY COGHLAN]
Uh, thank you. Now, first of all, in response to one thing,—and I apologize for my outburst,—but in the complex transformation SPEIS, NNSA stated over and over again that the nuclear facility was needed, was key to expanded pit production of 50 to 80 [pits per year], and with additional 9,000 square feet, then you could also go to 125 pits per year. But, you know, I can't help but regard this as a bit of a bait and switch. NNSA starts saying it's necessary, uh, for pit production. Now there's not pit production. Granted that there are other programs, but why can't those programs be housed in the light labs, for example, or at TA-48, or in PF-4? Uh, the nuclear facility, the need, is not clear to me. And [to] Congress as well.

[BRUCE MACCALLISTER]
... response.

[TIM NELSON]
That sounds like an NNSA question to me.

[Laughter]

[STEVE FONG]
... go back and forth. Uh, Jay [Coghlan], I think the SPEIS speaks for itself. Uh, again, I wanna speak for the project. We talk about project status. We do not assign the, the mission or the programmatic requirements. We're simply here to answer project status, project discussions. Uh, I realize this is the front end of the project, which we are all about. But again, all levels of assignments are contained within the SPEIS, and I think that speaks for itself. And I guess I'm not gonna be the one to speak for those. That would really be at a headquarters, mission-level.

[BRUCE MACALLISTER]
Uh, based on our agenda, we're at the point where we wanted to give the, based on the agenda, the opportunity for, the, uh, presentation from the concerned citizens, concerned parties. Uh, are we comfortable that we can transition and retain the questions for later? Or, are there some that are so burning to this that we need to—

[GREG MELLO]
One burning question.

[BRUCE MACALLISTER]
Can we agree on one burning question? Or—

[GREG MELLO]
[Inaudible words] right.

[BRUCE MACALLISTER]
—maybe two?

[Laughter]

[BRUCE MACALLISTER]
We'll, we'll move this along with dispatch, then, so we don't cheat the other presentation starting. Okay?

[GREG MELLO, LOS ALAMOS STUDY GROUP]
Greg Mello, Los Alamos Study Group. Jay's [Coghlan] comment was— I agree very much with the comment about TA-48. Missing from the analysis here is, uh, a look at the Laboratory's overall analytical capabilities. Its other radiological facilities, its other labs, and their missions and how those all shake down, and, uhm, it is not fully clear, I mean, it's not clear you need them all. And, so.

[UNIDENTIFIED PERSON]
Thank you [Inaudible word or two].

[GREG MELLO]
And, finally, about ARIES. Um, I'm not sure that any of us know what the missions of this building are. And I know you guys are really conscientious, but, uh, we don't know that the pit conversion and disassembly facility is gonna to be built at Savannah River. We don't know the future of that facility. We don't know the future of many things. And, the model we use after nineteen years of involvement in this, in the CMR-related issues, Joni [Arends] also nineteen years, and Jay [Coghlan], um, that these buildings, as you've explained, are sort of like big boxes. Most of the effort, most of the square footage, is in the core utilities that make them operate at all. So, um, they become flexible boxes into which missions can be put, and those can change.

[BRUCE MACALLISTER]
And one last comment and we'll—

[SCOTT KOVAC]
My name's Scott Kovac, with Nuke Watch New Mexico. I'm actually giving the interested parties presentation, so I think we're all fine.

[BRUCE MACALLISTER]
Okay.

[SCOTT KOVAC]
There's time for one more question.

[Laughter]

[SCOTT KOVAC]
Um, I'm sorry. I missed part of the discussion about, that there was actually five different buildings as part of the CMRR complex. Could you restate that again, or go over that

[RICK HOLMES]

[SCOTT KOVAC]
Thank you.

[UNIDENTIFIED PERSON]
[Inaudible words] ... what about it Tim?

[TIM NELSON]
This is Tim Nelson. So, some of the reasons why those nine modules were picked, were as part of that exit strategy associated with the CMR Building. So when you asked the question earlier, I'm pretty sure it was you Scott, —

[SCOTT KOVAC]
Yeah.

[TIM NELSON]
—about the wings being closed, which ones are being closed. That has to do with the ability to move some of those processes into the rad lab.

[SCOTT KOVAC]
That makes sense.

[BRUCE MACALLISTER]
Okay, other questions, comments? We've got plenty of time right now.

[GREG MELLO]
Great presentation Scott. Um, let's see, you guys have a plan— Oh, my name, Greg Mello, Los Alamos Study Group. You guys have a plan for converting the RLUOB to a nuclear facility? And, can we have it?

[RICK HOLMES]
I don't have a plan— This is Rick. I don't have a plan

[Laughter]

[RICK HOLMES]
NNSA and the Lab have a plan. They have a plan, but—

[BRUCE MACALLISTER]
Here Steve. [Handing microphone]

[RICK HOLMES]
We know that.

[STEVE FONG]
Lot of options are considered, especially when you look at the balance of facilities. Right now. So I can say, yeah, there was some speculation on it. Can we increase the rad lab? But I can tell you directly, explicitly, that we are building a radiological facility as of today. We have not been given any direction, nor have we developed any plans for [the] rad lab to be anything other than a radiological facility. RLUOB is a radiological facility. Did I answer— Did I miss the question?

[GREGG MELLO]

[SCOTT KOVAC]
Yes. Yes. Thank you. So you would say that, um, I'm sorry. You are just saying that all that's gonna be done before, I mean, all that has to be done before the final design is in place? Right? I mean, everybody has to sign off on everything before the final design is, can proceed, right?

[TIM NELSON]
That was Scott [Kovac] and this is Tim [Nelson]. But I'm going to turn it to Rick [Holmes] because Rick's actually having discussions with the Board.

[Laughter]

[RICK HOLMES]
So the—

[UNIDENTIFIED PERSONS]
[INAUDIBLE COMMENTS AND LAUGHTER]

[RICK HOLMES]
And the Defense Board has to be satisfied. So the Defense Board has to be satisfied that they have adequate information so that they can say that they are comfortable that their issue has been resolved. And, I'm not sure exactly how many stacks of paper they'd need to do that. This is,— and, and the answer from your other question from before, I don't know of any other time when the Defense Board had to do this process. This is pretty early in the life cycle of a project for the Defense Board to formally issue this type of declaration, particularly to Congress. And so, I, they don't have a template in terms of how they've done this. It really becomes a "How much information do they think they need," so that they can be comfortable, not only that things are right, but as, as we proceed through final design, 'cause there's an awful lot of design work to go, to work out the details, there's an awful lot of vendor equipment to go learn about, and make sure that it can be qualified, etcetera, that we and the Department [of Energy], meaning the project end of the Department, are not going to go back and say, "Well we thought that it was going to have this kind of pedigree, but we learned that it can't." And that's—

[Few words missed as audiotape was changed.]

[GREG MELLO]
I, um, Steve [Fong] knows, and Tom [Whitacre] and, um, I really appreciate the quality of work which, um, has taken place on this project, on many other projects, we would all be a great deal less safe, and more money would be wasted if it wasn't such high quality work. But I want to express an opinion based on many years, um, of work, not just on the implementation of policy, but on vetting what missions are actually necessary for the overarching mission that drives this Laboratory, and that is that I am pretty sure that this building, the nuclear facility, or the five buildings, and, and the radiological facility, *are not needed now or ever*, to maintain a US nuclear deterrent, a very large and diverse deterrent for many decades. I don't think this building is needed now, at the very most, I don't think we can be sure that it's needed now. As you know, this is the view of the House of Representatives for the last five years, so it's not exactly a marginal view.

[GREG MELLO]
Ahm, it's a very large project you guys are doing, and, in fact, it's, using constant construction dollars, it's five times larger than any other public works project in the history of the State of New Mexico. Other than the two Interstate Highways which were done in pieces, and it's kinda hard to get those numbers so I don't have those, but, um, it's five times bigger than the next biggest, actually, uh, it's kind of a tie between DAHRT and the Rail Runner. But it is much bigger than the San Juan Chama project, Cochiti

CMRR Public Meeting

Wednesday, September 23, 2009

Best Western "Hilltop House", Los Alamos, NM
6:30 – 8:30pm

6:30 – 6:40	Welcome	B. MacAllister
6:40 – 7:10	CMRR Project Presentation • Project Overview and Background • Project Update	R. Holmes
7:10 – 7:30	Questions	B. MacAllister
7:30 – 8:00	Settlement Parties Presentation	Settlement Parties
8:00 – 8:25	Questions	B. MacAllister
8:25 – 8:30	Closure & Adjourn	B. MacAllister

CMRR Public Meeting

Wednesday, March 3, 2010

Best Western "Hilltop House", Los Alamos, NM
6:30 – 8:30pm

6:30 – 6:40	Welcome	B. MacAllister
6:40 – 7:10	CMRR Project Presentation • Project Overview and Background • Project Update	R. Holmes
7:10 – 7:30	Questions	B. MacAllister
7:30 – 8:00	Settlement Parties Presentation	Settlement Parties
8:00 – 8:25	Questions	B. MacAllister
8:25 – 8:30	Closure & Adjourn	B. MacAllister

Courtney Perkins. New Mexico Environment Department.

[MIKE WHEELER, LOS ALAMOS COUNTY COUNCILOR]
Mike Wheeler. Los Alamos County Councilor.

[ERICH KUERSCHNER, ECONOMISTS FOR PEACE AND SECURITY]
Erich Kuerschner. I live in Taos. I'm with Economists for Peace and Security.

[DANNY WILLIAMS, BRIDGE TO NOWHERE]
Dan Williams. I'm with the bridgetonowhere.org.

[BARBARA WILLIAMS, DARE TO DREAM NETWORK]
Barbara Williams. I'm the founder of the Dare to Dream Network.

[JAY COGHLAN, NUCLEAR WATCH NEW MEXICO]
Jay Coghlan, Nuke Watch New Mexico.

[SUSAN GORDON, ALLIANCE FOR NUCLEAR ACCOUNTABILITY]
Susan Gordon, Alliance for Nuclear Accountability.

[SCOTT KOVAK, NUCLEAR WATCH NEW MEXICO]
Scott Kovac, Nuclear Watch New Mexico.

[CHARLES WILLIAM (BILL) BLANKENSHIP, CHEMICAL ENGINEER, ECOLOGY AND AIR QUALITY GROUP, ENVIRONMENTAL PROTECTION DIVISION, LANL]
Bill Blankenship. I'm in the Laboratory's Ecology and Air Quality Group.

[MYRON KOOP, CONSTRUCTION MANAGEMENT, DIVISION OFFICE, LANL]
Myron Koop. I'm on the CMRR Project.

[SUSAN TERP, RISK REDUCTION OFFICE, ENVIRONMENTAL PROECTION DIVISION, LANL]
Susan Terp. I'm with the Laboratory's Environmental Protection Division.

[CARL FROSTENSON, LABORATORY LEGAL COUNSEL, LANL]
Carl Frostenson. I'm with the Laboratory's Contract Assurance Office.

[TRISH WILLIAMS-MELLO, LOS ALAMOS STUDY GROUP]
Trish Williams-Mello with the Los Alamos Study Group.

[GREG MELLO, LOS ALAMOS STUDY GROUP]
Greg Mello, Los Alamos Study Group.

[NICOLE SEGUIN, CMRR PROJECT AND SECURITY AND ENVIRONMENTAL COMPLIANCE, LANL]
Nicole Seguin, CMRR Project.

try to put out the best planning information possible. But it's time where we get to this Critical Decisions 2-3 where we have to package— that's at that time and moment we will use the best factors we have out there, and then lay it on out. That's the best we can do.

[BRUCE MACALLISTER, FACILITATOR]
Other questions?

[GREG MELLO]
Steve, —

[BRUCE MACALLISTER, FACILITATOR]
Introduce yourself.

[GREG MELLO]
Oh sorry. Greg Mello. Do you, when you make these, um, cost estimates, um, are, what are the assumptions that you are using about concrete and steel and construction costs? Are they— sort of assuming they are flat from here on out? Or you build it a certain percent, since it's volatile, you can't really tell, but, what are your assumptions in short?

[BRUCE MACALLISTER, FACILITATOR]
Sure. Well, Rick?

[RICHARD A. HOLMES]
This is Rick. Because my team is responsible for trying to put something together. So you start with what you know today. Try to estimate what escalation factors are going to be for prices of commodities for years in the future, and I don't know— Commodity prices are gonna go up. I don't know when.

[GREG MELLO]
What do you use?

[RICHARD A. HOLMES]
So, today we have used, DOE has published escalation factors. And, I think, because they are somebody's best estimate to begin with, that's what we start with when we give that information to DOE. And they have actually published those. I think they are in, I think they are avail— I don't think they are secret or anything. Ahm, and right now they currently go to 2018. And so one assumption you have to make is, because they are flat in rate, they are about 2.1 or 2.4 percent, out in those years, and you, the assumption you have to make is that they stay at the same rate as they are going forward. So, when we give an estimate to DOE, we use their escalation rate.

[RICHARD A. HOLMES]
So you don't assume everything's gonna stay the same. You don't assume they are gonna go down, they are gonna go up. Because if a building of this size, in terms of quantities we are talking about, and for example, we are talking about, about a hundred and thirty thousand cubic yards of concrete in a building. Um, and Portland cement, which is a key component of concrete,

can often wind up going places around the world where the world market will tend to drive availability of some of those materials as you go forward. And that's a variable that you cannot plan for. So part of that chart that I showed you, that talked about baselining the last portion of the job, which is gonna have the biggest dollar values in it because it's the balance of the facility. In 2014, is intended to provide the Department [of Energy], and then ultimately the Department's commitment to Congress with certainty that, yes, we know enough at that point, it's a short enough duration that we can then not have to assume what escalation gonna be, we can go buy it right away, put it in the warehouse, put it in the laydown space, and manage, and manage in that particular way.

[RICHARD A. HOLMES]
Probably a longer answer than you wanted.

[BRUCE MACALLISTER, FACILITATOR]
Okay. Follow up?

[GREG MELLO]
Yeah. Uh, do you have a published lifecycle cost for the facility, as per your [word missing] order.

[RICHARD A. HOLMES]
There was a lifecycle cost— So the answer is, "Yes, it is being updated." There was one that was done back in the early days of the project as part of the DOE decision process. That number gets updated. My team is now trying to prepare for, an NNSA review of the costs of at least our current plan, so they can figure out what they need to program in budget space, 'cause you have to be ahead of commitments in budget space to give it a Congressional cycle. For example, DOE's input into the budget process for Fiscal Year '12 has to be done in July. So, it's a— We are doing some of that work now for programming space. And that lifecycle cost would be updated as part of that, as part of that exercise.

[STEVE FONG]
I think the last one, Jay, er Greg, was, uh, 2005.

[BRUCE MACALLISTER, FACILITATOR]
Okay.

[DANNY WILLIAMS, BRIDGE TO NOWHERE]
Dan Williams with Bridge to Nowhere again. My second part of that question was, uh, basically, ya'know, the world is trying to reduce nuclear. Ahm, we really don't need it. And even the president is on that wave length. Why is it that we're moving forward with making more of these triggers? I mean, what do we need 'em for?

[STEVE FONG]
Well. That's a big question. There's a lot of thoughts to all that. And, uh, first of all, the, the budget request for FY '11 and the planning numbers that go forward from '11 to now, I think, '15 or '16 are the administration's requirements. That is part of the president's request for this. I

Um, I listed the questions that you raised in your presentation here [on the flip chart] so that there's, if you'd like to spend the question and answer time going over these first, or, uh, shall we respond to these first? Or, go ahead get the other questions?

[UNIDENTIFIED PERSON]
Go ahead and finish the questions you've got.

[BRUCE MACALLISTER, FACILITATOR]
Okay.

[UNIDENTIFIED PERSON]
Yeah.

[GREG MELLO, NUCLEAR WATCH NEW MEXICO]
Scott, thanks very much. This was a, this is a suggestion. In looking at the square footage of the CMRR versus the CMR, um, look at the square footage of the existing CMR and it's existing missions. A lot of that square footage has already been shut down in the existing building and a lot is soon to be shut down. And this is a kind of a big mystery as to just what's being replaced here, and I, I think that will expand on your analysis and, um, make it even better.

[BRUCE MACALLISTER, FACILITATOR]
Response to that?

[SCOTT KOVAK]
Yes please. Yes, thank you. Greg [Mello]. Yes. Many of the wings maybe three or four of the existing wings of the CMR Building are presently empty. And have been shut down. Thank you.

[BRUCE MACALLISTER, FACILITATOR]
Other questions relating to the presentation? Okay.

[ERICH KUERSCHNER]
My name is Erich Kuerschner and I'm an economist and I wanna thank Scott [Kovac] for the presentation. And I'm especially interested in his thoughts on, let's see, what thought has been given to making the nuclear facility smaller.

[Interested Party Slide 12]
[ERICH KUERSCHNER]
And in that respect, I want to expand and just tell a little story. And I think, uh, what I was really troubled with tonight, the rest of this issue in the EIS [environmental impact statement] and under the NEPA statement, and I just didn't get a satisfactory response. And I learned my economics under Armand Alchain and all that bunch at UCLA, worked at Rand initially, and, uh, uh, the first thing that you learn when you are an Alchain student, is any time you see a need, look at it as being an obfuscation in terms of what, what, a, a conclusion being reached before the analysis has been done. And, ya'know, like he says, originally the CMRR, Congress determined it wasn't required unless the Reliable Warhead was to be needed, and so I'm just really troubled by not being able to get economist or social science in this thing.

activities, 65%, if we maybe even move just about half of that down to the renewable energy, we all would have electricity.

[SCOTT KOVAK]
Yes.

[BRUCE MACALLISTER, FACILITATOR]
Scott, comment.

[SCOTT KOVAK]
Yes, it's been our, ya'know, many of our positions, that, uh, the, the people at the Lab could do other things with the money. We especially believe that the Laboratory would be really good at nuclear nonproliferation.

[UNIDENTIFIED PERSONS]
[Inaudible voices off microphone.]

[GREG MELLO]
Scott, just one other comment about this, um, about making the nuclear facility smaller. And about the 2002 mission need. It was, um, it was pretty clear in 2002 that, I think you condensed what you're trying to say a little bit, and so it didn't all come out, but there really wasn't any mission need in 2002 either. Ahm, there was a stated mission need, but, um, for making RRWs [reliable replacement warheads], but of course there wasn't a need to make RRWs and so there wasn't a mission need for the building. Um, the, on the matter of making a smaller nuclear facility, it gets hard, as you know, you know the building is something, the labs are something like eight percent of the square footage of the building. It begins to be all shell and no nut. And, it, um, it's an interesting question from Erich's [Kuerschner] perspective what, how, what is the, what is the real benefit of, of this building, just even, I mean when you get the building where it's nearly all concrete, structure, utilities, fans, equipment, and there's very little actual usable space in the building left, and it has to be built that way so it can be safe, then you really, that should be a signal then, to go back to Eric's question, and say, maybe we should look at this whole thing de novo, again. I think it's probably quite hard to shrink. They've—

[BRUCE MACALLISTER, FACILITATOR]
Comment too?

[SCOTT KOVAK]
Ah yes, thank you Greg. I agree with you. I'm still not even convinced that the, ya'know, the facility, the operations that are planned for the new nuclear facility can be absorbed in the existing rad lab and the existing plutonium facility. And, we haven't really seen those numbers or been shown that, um, ya'know, demonstration, demonstrated to us how those numbers can not work yet.

[BRUCE MACALLISTER, FACILITATOR]
Follow-on question? Then you sir.

[RICHARD A. HOLMES]
And I don't know anything about the cap at Area G. I just know they need dirt.

[Laughter]

[BRUCE MACALLISTER]
Just a second. We've got, we've got one—

[GREG MELLO]
Is any of that soil contaminated? Have you measured it for radionuclides, heavy metals, volatiles?

[RICHARD A. HOLMES]
So, we are down, in time, in geologic time, we are looking at about 10 to 15 million years ago in time. So, I don't think— I know there's been soil samples done. I don't think they found anything of that type. We are way below the depth of any, any manmade activity.

[GREG MELLO]
Two hundred and twenty-five thousand cubic yards of soil removed. What will that be replaced with, and that's obviously more than 130,000 cubic yards of concrete?

[RICHARD A. HOLMES]
Uh, yeah, that's— This is Rick, and I'll probably just keep bouncing back and forth in terms of, I'm the guy that sounds like Dan Aykroyd. So, um—

[Laughter]

[RICHARD A. HOLMES]
Or he sounds like me. Um, so, the plan today is we'll replace it with lean concrete. So that's, uh, that's concrete without stone. And that'll give us an adequate, it's got Portland cement and sand and water and, essentially all the right materials, no aggregate in it. That will provide an adequate certainty of the characteristics so that any question that someone would ask in terms of, "Well how do you know what's going underneath the building is okay, uh, is okay?" Um, so that is not part of the 130,000 cubic yards of structural concrete in the building, but it would also come from a batch plant type operation. So, back on—

[JONI ARENDS]
So, Rick, just a clarifying question. So where are those reports. Where's your work plan? How do we get ahold of it to be able to review it?

[RICHARD A. HOLMES]
So we are putting together that design now. So, um, it's still in process. In fact, engineers were in my office today where I approved of the release of the design work, so that'll be a future activity, and as we get that, we'll come in and talk about it.

[UNIDENTIFIED PERSON]

in terms of size. The laboratory footprint, which is a major portion of the building structure, if you started to remove individual laboratories, said I don't want that capability, Greg's [Mello] point is right that the building is not gonna change much in terms of size if you do that, because it's full in the basement with the ventilation system and the utility structure that's above that.

[RICHARD A. HOLMES]
When the building went from 40,000 square feet of laboratory space down to the 22,500 square feet of laboratory space that's in there today, you might have been able to at that point, but no one had a design for that structure, been able to contemplate, yes, if I take away, then it could get smaller. The utility structure of the auxiliary building, we did make bigger from an operations and a constructability review. 'Cause we had stuff that was just packed too tight. So, I've already had, looking at the design, to make sure that there's room to get the valves and get the gauges and do the right work that has to be done inside of there. We had maintenance people from TA-55. I brought in external maintenance people. I had construction people look at it to make sure that they felt like that there was adequate clearance. And as part of that exercise, I made that building a little bit bigger to give them the room that they thought they needed to get the stuff. Now, it's gonna be full. 'Cause they always wind up full. So, we have done some of those things to make the building footprint bigger. I think we're at the point where we're about to freeze that portion of the design, so that it's not gonna change very much at all from here.

[RICHARD A. HOLMES]
I'm not gonna get into the comparisons to other facilities, because we could have that discussion for a really long time. In terms of what footprint do I count? Because I'm building a training center, do I count the training complex that's in Los Alamos town that I'm gonna not use any more as part of the footprint, and all that stuff. But I think our footprint is pretty much getting close to being stable in terms of size, and others, in terms of things. That was a source of change as we did go through some things.

[RICHARD A. HOLMES]
The, the, in the contingency number, in the data sheet that NNSA had sent, they are showing that number at about $700 million dollars of contingency. At this stage of a project, having 25 or 30% contingency in your plan is smart. If I came in here and told you I know everything I need to know to go build this job, you should have me fired. 'Cause I don't. Nobody, nobody can. And so, having that contingency— That was not an offer, by the way.

[Laughter]

[RICK HOLMES]
Joni's back there laughing. I mean it's— So,

[JONI ARENDS]
It's an astronomical amount of money.

those kind of things in there. You can make that, you can make that story kinda go either way, I think.

[STEVE FONG]
I think that the story is that, in terms of programmatic space, if you look at— And we tried doing this in pie charts last time, and time before, and we ended up comparing apples and oranges. But, the numbers I kind of judge, was it's about 130,000 gross square feet of current programmatic space in CMR. We're placing 19,500 in radiological space and 22,500 in the nuclear facility, so that's roughly about what? 40,000 square feet? So there's programmatically, the amount of programmatic space is going down significantly. But the requirements for all of the safety systems that we have to design on in makes this nut, rather as Greg's [Mello] noted, rather large and robust. So, uh, that is reduction of programmatic space, greater footprint. But then again, when you start adding apples and oranges, and the nuclear facility, we are adding in interstitial space, whether or not that's actual operating space, and stuff in the basement, that you typically don't go in, but it does have a floor and walls, count that as hard space. So there are things that really go into that equation that makes it an apple and orange type of, of comparison.

[BRUCE MACALLISTER, FACILITATOR]
Okay, we have about five minutes left. I've got two people right now in the cue for questions. Three. So.

[DAVE MCCOY]
Yes, looking at this—

[MORRISON BENNETT, TRANSCRIBER]
Name?

[DAVE MCCOY]
Ah, Dave McCoy. Looking at this from a legal perspective, it seems to me that when you are talking about excavating this large volume of material, and— It seems that you have basically, ah, changing designs, changing awareness and recognition of seismic hazards that weren't previously identified, ah, you've got new traffic concerns, new air concerns, ah, It just seems to me that you need to take another look at, at least, a supplement to your EA. Ah, you need to redo it, you need to re-open it to the public. There's plenty of public concern here. You can't deny that. I think you need to be looking at, at uh, the EIS for this business, 'cause you've got some substantial changes that you've made here.

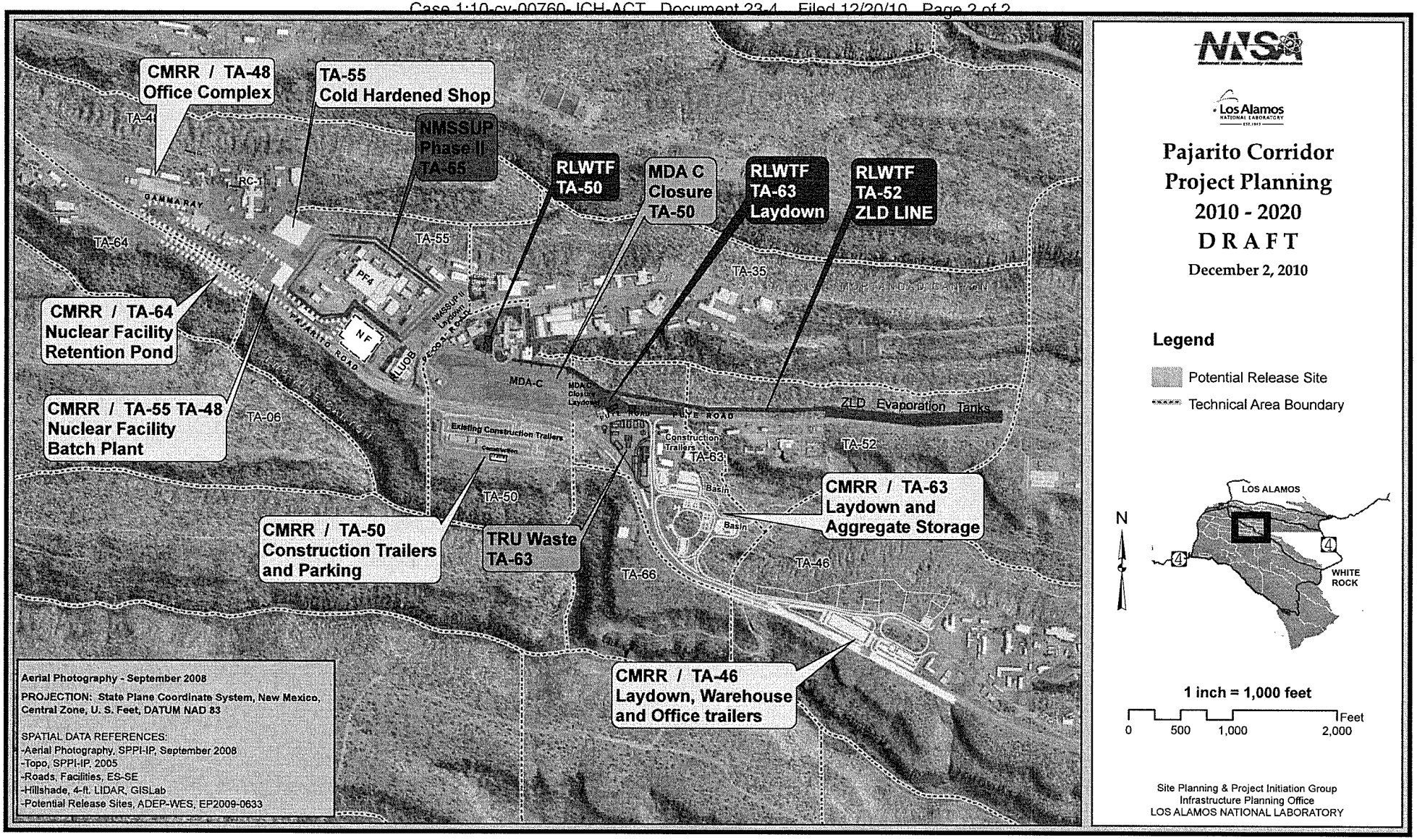
[DAVE MCCOY]
That's a question. Oh—

[UNIDENTIFIED PERSON]
Uh, what's the question?

[STEVE FONG]
Cindy [Blackwell], we have an EIS for the CMR facility 2004. I think I wanna say November or February. I get those dates for five years. And then the, that looked at the construction impacts

Declaration of Roger E. Snyder

Attachment 2



NNSA

Los Alamos NATIONAL LABORATORY

Pajarito Corridor Project Planning 2010 - 2020

DRAFT

December 2, 2010

Legend

- Potential Release Site
- Technical Area Boundary

1 inch = 1,000 feet

0 500 1,000 2,000 Feet

Site Planning & Project Initiation Group
Infrastructure Planning Office
LOS ALAMOS NATIONAL LABORATORY

00780

Declaration of Roger E. Snyder

Attachment 3

Nuclear Posture Review Report

April 2010

EXECUTIVE SUMMARY

In his April 2009 speech in Prague, President Obama highlighted 21st century nuclear dangers, declaring that to overcome these grave and growing threats, the United States will "seek the peace and security of a world without nuclear weapons." He recognized that such an ambitious goal could not be reached quickly – perhaps, he said, not in his lifetime. But the President expressed his determination to take concrete steps toward that goal, including by reducing the number of nuclear weapons and their role in U.S. national security strategy. At the same time, he pledged that as long as nuclear weapons exist, the United States will maintain a safe, secure, and effective arsenal, both to deter potential adversaries and to assure U.S. allies and other security partners that they can count on America's security commitments.

President Barack Obama unveils his vision for reducing nuclear dangers and pursuing the long-term goal of a world without nuclear weapons in Prague's Hradcany Square on Apr. 5, 2009. Official White House photo by Lawrence Jackson.

The 2010 Nuclear Posture Review (NPR) outlines the Administration's approach to promoting the President's agenda for reducing nuclear dangers and pursuing the goal of a world without nuclear weapons, while simultaneously advancing broader U.S. security interests. The NPR reflects the President's national security priorities and the supporting defense strategy objectives identified in the 2010 Quadrennial Defense Review.

After describing fundamental changes in the international security environment, the NPR report focuses on five key objectives of our nuclear weapons policies and posture:

1. Preventing nuclear proliferation and nuclear terrorism;
2. Reducing the role of U.S. nuclear weapons in U.S. national security strategy;
3. Maintaining strategic deterrence and stability at reduced nuclear force levels;
4. Strengthening regional deterrence and reassuring U.S. allies and partners; and
5. Sustaining a safe, secure, and effective nuclear arsenal.

While the NPR focused principally on steps to be taken in the next five to ten years, it also considered the path ahead for U.S. nuclear strategy and posture over the longer term. Making sustained progress to reduce nuclear dangers, while ensuring security for ourselves and our allies and partners, will require a concerted effort by a long succession of U.S. Administrations and Congresses. Forging a sustainable consensus on the way ahead is critical.

The Changed – and Changing – International Security Environment

The international security environment has changed dramatically since the end of the Cold War. The threat of global nuclear war has become remote, but the risk of nuclear attack has increased.

As President Obama has made clear, today's most immediate and extreme danger is nuclear terrorism. Al Qaeda and their extremist allies are seeking nuclear weapons. We must assume they would use such weapons if they managed to obtain them. The vulnerability to theft or seizure of vast stocks of such nuclear materials around the world, and the availability of sensitive equipment and technologies in the nuclear black market, create a serious risk that terrorists may acquire what they need to build a nuclear weapon.

Today's other pressing threat is nuclear proliferation. Additional countries – especially those at odds with the United States, its allies and partners, and the broader international community – may acquire nuclear weapons. In pursuit of their nuclear ambitions, North Korea and Iran have violated non-proliferation obligations, defied directives of the United Nations Security Council, pursued missile delivery capabilities, and resisted international efforts to resolve through diplomatic means the crises they have created. Their provocative behavior has increased instability in their regions and could generate pressures in neighboring countries for considering nuclear deterrent options of their own. Continued non-compliance with non-proliferation norms by these and other countries would seriously weaken the Nuclear Non-Proliferation Treaty (NPT), with adverse security implications for the United States and the international community.

While facing the increasingly urgent threats of nuclear terrorism and nuclear proliferation, the United States must continue to address the more familiar challenge of ensuring strategic stability with existing nuclear powers – most notably Russia and China. Russia remains America's only peer in the area of nuclear weapons capabilities. But the nature of the U.S.-Russia relationship has changed fundamentally since the days of the Cold War. While policy differences continue to arise between the two countries and Russia continues to modernize its still-formidable nuclear forces, Russia and the United States are no longer adversaries, and prospects for military confrontation have declined dramatically. The two have increased their cooperation in areas of shared interest, including preventing nuclear terrorism and nuclear proliferation.

The United States and China are increasingly interdependent and their shared responsibilities for addressing global security threats, such as weapons of mass destruction (WMD) proliferation and terrorism, are growing. At the same time, the United States and China's Asian neighbors remain concerned about China's current military modernization efforts, including its qualitative and quantitative modernization of its nuclear arsenal. China's nuclear arsenal remains much smaller than the arsenals of Russia and the United States. But the lack of transparency surrounding its nuclear programs – their pace and scope, as well as the strategy and doctrine that guides them – raises questions about China's future strategic intentions.

These changes in the nuclear threat environment have altered the hierarchy of our nuclear concerns and strategic objectives. In coming years, we must give top priority to discouraging additional countries from acquiring nuclear weapons capabilities and stopping terrorist groups from acquiring nuclear bombs or the materials to build them. At the same time, we must continue to maintain stable strategic relationships with Russia and China and counter threats posed by any emerging nuclear-armed states, thereby protecting the United States and our allies and partners against nuclear threats or intimidation, and reducing any incentives they might have to seek their own nuclear deterrents.

Implications for U.S. Nuclear Weapons Policies and Force Posture

The massive nuclear arsenal we inherited from the Cold War era of bipolar military confrontation is poorly suited to address the challenges posed by suicidal terrorists and unfriendly regimes seeking nuclear weapons. Therefore, it is essential that we better align our nuclear policies and posture to our most urgent priorities – preventing nuclear terrorism and nuclear proliferation.

This does not mean that our nuclear deterrent has become irrelevant. Indeed, as long as nuclear weapons exist, the United States will sustain safe, secure, and effective nuclear forces. These nuclear forces will continue to play an essential role in deterring potential adversaries and reassuring allies and partners around the world.

But fundamental changes in the international security environment in recent years – including the growth of unrivaled U.S. conventional military capabilities, major improvements in missile defenses, and the easing of Cold War rivalries – enable us to fulfill those objectives at significantly lower nuclear force levels and with reduced reliance on nuclear weapons. Therefore, without jeopardizing our traditional deterrence and reassurance goals, we are now able to shape our nuclear weapons policies and force structure in ways that will better enable us to meet our most pressing security challenges.

- By reducing the role and numbers of U.S. nuclear weapons – meeting our NPT Article VI obligation to make progress toward nuclear disarmament – we can put ourselves in a

much stronger position to persuade our NPT partners to join with us in adopting the measures needed to reinvigorate the non-proliferation regime and secure nuclear materials worldwide.

- By maintaining a credible nuclear deterrent and reinforcing regional security architectures with missile defenses and other conventional military capabilities, we can reassure our non-nuclear allies and partners worldwide of our security commitments to them and confirm that they do not need nuclear weapons capabilities of their own.

- By pursuing a sound Stockpile Management Program for extending the life of U.S. nuclear weapons, we can ensure a safe, secure, and effective deterrent without the development of new nuclear warheads or further nuclear testing.

- By modernizing our aging nuclear facilities and investing in human capital, we can substantially reduce the number of nuclear weapons we retain as a hedge against technical or geopolitical surprise, accelerate dismantlement of retired warheads, and improve our understanding of foreign nuclear weapons activities.

- By promoting strategic stability with Russia and China and improving transparency and mutual confidence, we can help create the conditions for moving toward a world without nuclear weapons and build a stronger basis for addressing nuclear proliferation and nuclear terrorism.

- By working to reduce the salience of nuclear weapons in international affairs and moving step-by-step toward eliminating them, we can reverse the growing expectation that we are destined to live in a world with more nuclear-armed states, and decrease incentives for additional countries to hedge against an uncertain future by pursuing nuclear options of their own.

Preventing Nuclear Proliferation and Nuclear Terrorism

As a critical element of our effort to move toward a world free of nuclear weapons, the United States will lead expanded international efforts to rebuild and strengthen the global nuclear non-proliferation regime – and for the first time, the 2010 NPR places this priority atop the U.S. nuclear agenda. Concerns have grown in recent years that we are approaching a nuclear tipping point – that unless today's dangerous trends are arrested and reversed, before very long we will be living in a world with a steadily growing number of nuclear-armed states and an increasing likelihood of terrorists getting their hands on nuclear weapons.

The U.S. approach to preventing nuclear proliferation and nuclear terrorism includes three key elements. First, we seek to bolster the nuclear non-proliferation regime and its centerpiece, the NPT, by reversing the nuclear ambitions of North Korea and Iran, strengthening International

Atomic Energy Agency safeguards and enforcing compliance with them, impeding illicit nuclear trade, and promoting the peaceful uses of nuclear energy without increasing proliferation risks. Second, we are accelerating efforts to implement President Obama's initiative to secure all vulnerable nuclear materials worldwide in four years.

And third, we are pursuing arms control efforts – including the New Strategic Arms Reduction Treaty (New START), ratification and entry into force of the Comprehensive Nuclear Test Ban Treaty, and negotiation of a verifiable Fissile Material Cutoff Treaty – as a means of strengthening our ability to mobilize broad international support for the measures needed to reinforce the non-proliferation regime and secure nuclear materials worldwide.

Among key Administration initiatives are:

- Pursuing aggressively the President's Prague initiative to secure all vulnerable nuclear materials worldwide, including accelerating the Global Threat Reduction Initiative and the International Nuclear Material Protection and Cooperation Program. This includes increasing funding in fiscal year (FY) 2011 for Department of Energy nuclear non-proliferation programs to $2.7 billion, more than 25 percent.

- Enhancing national and international capabilities to disrupt illicit proliferation networks and interdict smuggled nuclear materials, and continuing to expand our nuclear forensics efforts to improve the ability to identify the source of nuclear material used or intended for use in a terrorist nuclear explosive device.

- Initiating a comprehensive national research and development program to support continued progress toward a world free of nuclear weapons, including expanded work on verification technologies and the development of transparency measures.

- Renewing the U.S. commitment to hold fully accountable any state, terrorist group, or other non-state actor that supports or enables terrorist efforts to obtain or use weapons of mass destruction, whether by facilitating, financing, or providing expertise or safe haven for such efforts.

Reducing the Role of U.S. Nuclear Weapons

The role of nuclear weapons in U.S. national security and U.S. military strategy has been reduced significantly in recent decades, but further steps can and should be taken at this time.

The fundamental role of U.S. nuclear weapons, which will continue as long as nuclear weapons exist, is to deter nuclear attack on the United States, our allies, and partners.

During the Cold War, the United States reserved the right to use nuclear weapons in response to a massive conventional attack by the Soviet Union and its Warsaw Pact allies. Moreover, after the

United States gave up its own chemical and biological weapons (CBW) pursuant to international treaties (while some states continue to possess or pursue them), it reserved the right to employ nuclear weapons to deter CBW attack on the United States and its allies and partners.

Since the end of the Cold War, the strategic situation has changed in fundamental ways. With the advent of U.S. conventional military preeminence and continued improvements in U.S. missile defenses and capabilities to counter and mitigate the effects of CBW, the role of U.S. nuclear weapons in deterring non-nuclear attacks – conventional, biological, or chemical – has declined significantly. The United States will continue to reduce the role of nuclear weapons in deterring non-nuclear attacks.

To that end, the United States is now prepared to strengthen its long-standing "negative security assurance" by declaring that the United States will not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the NPT and in compliance with their nuclear non-proliferation obligations.

This revised assurance is intended to underscore the security benefits of adhering to and fully complying with the NPT and persuade non-nuclear weapon states party to the Treaty to work with the United States and other interested parties to adopt effective measures to strengthen the non-proliferation regime.

In making this strengthened assurance, the United States affirms that any state eligible for the assurance that uses chemical or biological weapons against the United States or its allies and partners would face the prospect of a devastating conventional military response – and that any individuals responsible for the attack, whether national leaders or military commanders, would be held fully accountable. Given the catastrophic potential of biological weapons and the rapid pace of bio-technology development, the United States reserves the right to make any adjustment in the assurance that may be warranted by the evolution and proliferation of the biological weapons threat and U.S. capacities to counter that threat.

In the case of countries not covered by this assurance – states that possess nuclear weapons and states not in compliance with their nuclear non-proliferation obligations – there remains a narrow range of contingencies in which U.S. nuclear weapons may still play a role in deterring a conventional or CBW attack against the United States or its allies and partners. The United States is therefore not prepared at the present time to adopt a universal policy that deterring nuclear attack is the sole purpose of nuclear weapons, but will work to establish conditions under which such a policy could be safely adopted.

Yet that does not mean that our willingness to use nuclear weapons against countries not covered by the new assurance has in any way increased. Indeed, the United States wishes to stress that it would only consider the use of nuclear weapons in extreme circumstances to defend the vital

interests of the United States or its allies and partners. It is in the U.S. interest and that of all other nations that the nearly 65-year record of nuclear non-use be extended forever.

Accordingly, among the key conclusions of the NPR:

- The United States will continue to strengthen conventional capabilities and reduce the role of nuclear weapons in deterring non-nuclear attacks, with the objective of making deterrence of nuclear attack on the United States or our allies and partners the sole purpose of U.S. nuclear weapons.
- The United States would only consider the use of nuclear weapons in extreme circumstances to defend the vital interests of the United States or its allies and partners.
- The United States will not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the NPT and in compliance with their nuclear non-proliferation obligations.

Maintaining Strategic Deterrence and Stability at Reduced Nuclear Force Levels

Since the end of the Cold War, the United States and Russia have reduced operationally deployed strategic nuclear weapons by about 75 percent, but both still retain many more nuclear weapons than they need for deterrence. The Administration is committed to working with Russia to preserve stability at significantly reduced force levels.

New START. The next step in this process is to replace the now-expired 1991 START I Treaty with another verifiable agreement, New START. An early task for the NPR was to develop U.S. positions for the New START negotiations and to consider how U.S. forces could be structured in light of the reductions required by the new agreement. The NPR reached the following conclusions:

- Stable deterrence can be maintained while reducing U.S. strategic delivery vehicles – inter-continental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs), and nuclear-capable heavy bombers – by approximately 50 percent from the START I level, and reducing accountable strategic warheads by approximately 30 percent from the Moscow Treaty level.
- Building on NPR analysis, the United States agreed with Russia to New START limits of 1,550 accountable strategic warheads, 700 deployed strategic delivery vehicles, and a combined limit of 800 deployed and non-deployed strategic launchers.
- The U.S. nuclear Triad of ICBMs, SLBMs, and nuclear-capable heavy bombers will be maintained under New START.
- All U.S. ICBMs will be "de-MIRVed" to a single warhead each to increase stability.

- Contributions by non-nuclear systems to U.S. regional deterrence and reassurance goals will be preserved by avoiding limitations on missile defenses and preserving options for using heavy bombers and long-range missile systems in conventional roles.

Maximizing Presidential decision time. The NPR concluded that the current alert posture of U.S. strategic forces – with heavy bombers off full-time alert, nearly all ICBMs on alert, and a significant number of SSBNs at sea at any given time – should be maintained for the present. It also concluded that efforts should continue to diminish further the possibility of nuclear launches resulting from accidents, unauthorized actions, or misperceptions and to maximize the time available to the President to consider whether to authorize the use of nuclear weapons. Key steps include:

- Continuing the practice of "open-ocean targeting" of all ICBMs and SLBMs so that, in the highly unlikely event of an unauthorized or accidental launch, the missile would land in the open ocean, and asking Russia to re-confirm its commitment to this practice.
- Further strengthening the U.S. command and control system to maximize Presidential decision time in a nuclear crisis.
- Exploring new modes of ICBM basing that enhance survivability and further reduce any incentives for prompt launch.

Reinforcing strategic stability. Given that Russia and China are currently modernizing their nuclear capabilities – and that both are claiming U.S. missile defense and conventionally-armed missile programs are destabilizing – maintaining strategic stability with the two countries will be an important challenge in the years ahead.

- The United States will pursue high-level, bilateral dialogues on strategic stability with both Russia and China which are aimed at fostering more stable, resilient, and transparent strategic relationships.

A strategic dialogue with Russia will allow the United States to explain that our missile defenses and any future U.S. conventionally-armed long-range ballistic missile systems are designed to address newly emerging regional threats, and are not intended to affect the strategic balance with Russia. For its part, Russia could explain its modernization programs, clarify its current military doctrine (especially the extent to which it places importance on nuclear weapons), and discuss steps it could take to allay concerns in the West about its non-strategic nuclear arsenal, such as further consolidating its non-strategic systems in a small number of secure facilities deep within Russia.

With China, the purpose of a dialogue on strategic stability is to provide a venue and mechanism for each side to communicate its views about the other's strategies, policies, and programs on

nuclear weapons and other strategic capabilities. The goal of such a dialogue is to enhance confidence, improve transparency, and reduce mistrust. As stated in the 2010 Ballistic Missile Defense Review Report, "maintaining strategic stability in the U.S.-China relationship is as important to this Administration as maintaining strategic stability with other major powers."

Future nuclear reductions. The President has directed a review of post-New START arms control objectives, to consider future reductions in nuclear weapons. Several factors will influence the magnitude and pace of future reductions in U.S. nuclear forces below New START levels.

First, any future nuclear reductions must continue to strengthen deterrence of potential regional adversaries, strategic stability vis-à-vis Russia and China, and assurance of our allies and partners. This will require an updated assessment of deterrence requirements; further improvements in U.S., allied, and partner non-nuclear capabilities; focused reductions in strategic and non-strategic weapons; and close consultations with allies and partners. The United States will continue to ensure that, in the calculations of any potential opponent, the perceived gains of attacking the United States or its allies and partners would be far outweighed by the unacceptable costs of the response.

Second, implementation of the Stockpile Stewardship Program and the nuclear infrastructure investments recommended in the NPR will allow the United States to shift away from retaining large numbers of non-deployed warheads as a hedge against technical or geopolitical surprise, allowing major reductions in the nuclear stockpile. These investments are essential to facilitating reductions while sustaining deterrence under New START and beyond.

Third, Russia's nuclear force will remain a significant factor in determining how much and how fast we are prepared to reduce U.S. forces. Because of our improved relations, the need for strict numerical parity between the two countries is no longer as compelling as it was during the Cold War. But large disparities in nuclear capabilities could raise concerns on both sides and among U.S. allies and partners, and may not be conducive to maintaining a stable, long-term strategic relationship, especially as nuclear forces are significantly reduced. Therefore, we will place importance on Russia joining us as we move to lower levels.

Key NPR recommendations include:

- Conduct follow-on analysis to set goals for future nuclear reductions below the levels expected in New START, while strengthening deterrence of potential regional adversaries, strategic stability vis-à-vis Russia and China, and assurance of our allies and partners.
- Address non-strategic nuclear weapons, together with the non-deployed nuclear weapons of both sides, in any post-New START negotiations with Russia.

- Implement U.S. nuclear force reductions in ways that maintain the reliability and effectiveness of security assurances to our allies and partners. The United States will consult with allies and partners in developing its approach to post-New START negotiations.

Strengthening Regional Deterrence and Reassuring U.S. Allies and Partners

The United States is fully committed to strengthening bilateral and regional security ties and working with allies and partners to adapt these relationships to 21st century challenges. Such security relationships are critical in deterring potential threats, and can also serve our non-proliferation goals – by demonstrating to neighboring states that their pursuit of nuclear weapons will only undermine their goal of achieving military or political advantages, and by reassuring non-nuclear U.S. allies and partners that their security interests can be protected without their own nuclear deterrent capabilities.

U.S. nuclear weapons have played an essential role in extending deterrence to U.S. allies and partners against nuclear attacks or nuclear-backed coercion by states in their region that possess or are seeking nuclear weapons. A credible U.S. "nuclear umbrella" has been provided by a combination of means – the strategic forces of the U.S. Triad, non-strategic nuclear weapons deployed forward in key regions, and U.S.-based nuclear weapons that could be deployed forward quickly to meet regional contingencies. The mix of deterrence means has varied over time and from region to region.

Defense Secretary Robert M. Gates conducts a press conference following the NATO Defense Ministerial in Istanbul, Turkey, Feb. 5, 2010. DoD photo by Cherie Cullen.

In Europe, forward-deployed U.S. nuclear weapons have been reduced dramatically since the end of the Cold War, but a small number of U.S. nuclear weapons remain. Although the risk of nuclear attack against NATO members is at an historic low, the presence of U.S. nuclear weapons – combined with NATO's unique nuclear sharing arrangements under which non-nuclear members participate in nuclear planning and possess specially configured aircraft capable of delivering nuclear weapons – contribute to Alliance cohesion and provide reassurance to allies and partners who feel exposed to regional threats. The role of nuclear weapons in defending Alliance members will be discussed this year in

connection with NATO's revision of its Strategic Concept. Any changes in NATO's nuclear posture should only be taken after a thorough review within – and decision by – the Alliance.

In Asia and the Middle East – where there are no multilateral alliance structures analogous to NATO – the United States has maintained extended deterrence through bilateral alliances and security relationships and through its forward military presence and security guarantees. When the Cold War ended, the United States withdrew its forward deployed nuclear weapons from the Pacific region, including removing nuclear weapons from naval surface vessels and general purpose submarines. Since then, it has relied on its central strategic forces and the capacity to re-deploy nuclear systems in East Asia in times of crisis.

Although nuclear weapons have proved to be a key component of U.S. assurances to allies and partners, the United States has relied increasingly on non-nuclear elements to strengthen regional security architectures, including a forward U.S. conventional presence and effective theater ballistic missile defenses. As the role of nuclear weapons is reduced in U.S. national security strategy, these non-nuclear elements will take on a greater share of the deterrence burden. Moreover, an indispensable ingredient of effective regional deterrence is not only non-nuclear but also non-military – strong, trusting political relationships between the United States and its allies and partners.

Non-strategic nuclear weapons. The United States has reduced non-strategic (or "tactical") nuclear weapons dramatically since the end of the Cold War. Today, it keeps only a limited number of forward deployed nuclear weapons in Europe, plus a small number of nuclear weapons stored in the United States for possible overseas deployment in support of extended deterrence to allies and partners worldwide. Russia maintains a much larger force of non-strategic nuclear weapons, a significant number of which are deployed near the territories of several North Atlantic Treaty Organization (NATO) countries.

The NPR concluded that the United States will:

- Retain the capability to forward-deploy U.S. nuclear weapons on tactical fighter-bombers and heavy bombers, and proceed with full scope life extension for the B-61 bomb including enhancing safety, security, and use control.
- Retire the nuclear-equipped sea-launched cruise missile (TLAM-N).
- Continue to maintain and develop long-range strike capabilities that supplement U.S. forward military presence and strengthen regional deterrence.
- Continue and, where appropriate, expand consultations with allies and partners to address how to ensure the credibility and effectiveness of the U.S. extended deterrent. No changes

in U.S. extended deterrence capabilities will be made without close consultations with our allies and partners.

Sustaining a Safe, Secure, and Effective Nuclear Arsenal

The United States is committed to ensuring that its nuclear weapons remain safe, secure, and effective. Since the end of U.S. nuclear testing in 1992, our nuclear warheads have been maintained and certified as safe and reliable through a Stockpile Stewardship Program that has extended the lives of warheads by refurbishing them to nearly original specifications. Looking ahead three decades, the NPR considered how best to extend the lives of existing nuclear warheads consistent with the congressionally mandated Stockpile Management Program and U.S. non-proliferation goals, and reached the following conclusions:

- The United States will not conduct nuclear testing and will pursue ratification and entry into force of the Comprehensive Nuclear Test Ban Treaty.
- The United States will not develop new nuclear warheads. Life Extension Programs (LEPs) will use only nuclear components based on previously tested designs, and will not support new military missions or provide for new military capabilities.
- The United States will study options for ensuring the safety, security, and reliability of nuclear warheads on a case-by-case basis, consistent with the congressionally mandated Stockpile Management Program. The full range of LEP approaches will be considered: refurbishment of existing warheads, reuse of nuclear components from different warheads, and replacement of nuclear components.
- In any decision to proceed to engineering development for warhead LEPs, the United States will give strong preference to options for refurbishment or reuse. Replacement of nuclear components would be undertaken only if critical Stockpile Management Program goals could not otherwise be met, and if specifically authorized by the President and approved by Congress.

Consistent with these conclusions, the NPR recommended:

- Funding fully the ongoing LEP for the W-76 submarine-based warhead and the LEP study and follow-on activities for the B-61 bomb; and
- Initiating a study of LEP options for the W-78 ICBM warhead, including the possibility of using the resulting warhead also on SLBMs to reduce the number of warhead types.

In order to remain safe, secure, and effective, the U.S. nuclear stockpile must be supported by a modern physical infrastructure – comprised of the national security laboratories and a complex of supporting facilities – and a highly capable workforce with the specialized skills needed to sustain

the nuclear deterrent. As the United States reduces the numbers of nuclear weapons, the reliability of the remaining weapons in the stockpile – and the quality of the facilities needed to sustain it – become more important.

Human capital is also a concern. The national security laboratories have found it increasingly difficult to attract and retain the most promising scientists and engineers of the next generation. The Administration's commitment to a clear, long-term plan for managing the stockpile, as well as to preventing proliferation and nuclear terrorism will enhance recruitment and retention of the scientists and engineers of tomorrow, by providing the opportunity to engage in challenging and meaningful research and development activities.

The NPR concluded:

- The science, technology and engineering base, vital for stockpile stewardship as well as providing insights for non-proliferation, must be strengthened.
- Increased investments in the nuclear weapons complex of facilities and personnel are required to ensure the long-term safety, security, and effectiveness of our nuclear arsenal. New facilities will be sized to support the requirements of the stockpile stewardship and management plan being developed by the National Nuclear Security Administration.
- Increased funding is needed for the Chemistry and Metallurgy Research Replacement Project at Los Alamos National Laboratory to replace the existing 50-year old facility, and to develop a new Uranium Processing Facility at the Y-12 Plant in Oak Ridge, Tennessee.

Looking Ahead: Toward a World without Nuclear Weapons

Pursuing the recommendations of the 2010 Nuclear Posture Review will strengthen the security of the United States and its allies and partners and bring us significant steps closer to the President's vision of a world without nuclear weapons.

The conditions that would ultimately permit the United States and others to give up their nuclear weapons without risking greater international instability and insecurity are very demanding. Among those conditions are success in halting the proliferation of nuclear weapons, much greater transparency into the programs and capabilities of key countries of concern, verification methods and technologies capable of detecting violations of disarmament obligations, enforcement measures strong and credible enough to deter such violations, and ultimately the resolution of regional disputes that can motivate rival states to acquire and maintain nuclear weapons. Clearly, such conditions do not exist today.

But we can – and must – work actively to create those conditions. We can take the practical steps identified in the 2010 NPR that will not only move us toward the ultimate goal of eliminating all nuclear weapons worldwide but will, in their own right, reinvigorate the global nuclear non-

proliferation regime, erect higher barriers to the acquisition of nuclear weapons and nuclear materials by terrorist groups, and strengthen U.S. and international security.

- The United States will consider reductions in non-deployed nuclear warheads, as well as acceleration of the pace of nuclear warhead dismantlement, as it implements a new stockpile stewardship and management plan consistent with New START.

The National Nuclear Security Administration (NNSA), in close coordination with DoD, will provide a new stockpile stewardship and management plan to Congress within 90 days, consistent with the increases in infrastructure investment requested in the President's FY 2011 budget. As critical infrastructure is restored and modernized, it will allow the United States to begin to shift away from retaining large numbers of non-deployed warheads as a technical hedge, allowing additional reductions in the U.S. stockpile of non-deployed nuclear weapons over time.

The approach described here will ensure high confidence in the technical performance of warheads retained in the stockpile. It will guarantee that their safety and security are aligned with 21st century requirements (and technical capabilities). At the same time, it will not develop new nuclear warheads, and it will be structured so as not to require nuclear testing. Life Extension Programs will use only nuclear components based on previously tested designs, and will not support new military missions or provide for new military capabilities. This approach sets a high standard for the safety and security of U.S. nuclear weapons and, in support of nonproliferation goals, positions the United States to encourage other nations to maintain the highest levels of surety for their nuclear stockpiles.

Critical Infrastructure and Human Capital

In order to sustain a safe, secure, and effective U.S. nuclear stockpile as long as nuclear weapons exist, the United States must possess a modern physical infrastructure – comprised of the national security laboratories and a complex of supporting facilities – and a highly capable workforce with the specialized skills needed to sustain the nuclear deterrent and support the President's nuclear security agenda.

Today's nuclear complex, however, has fallen into neglect. Although substantial science, technology, and engineering investments were made over the last decade under the auspices of the Stockpile Stewardship Program, the complex still includes many oversized and costly-to-maintain facilities built during the 1940s and 1950s. Some facilities needed for working with plutonium and uranium date back to the Manhattan Project. Safety, security, and environmental issues associated with these aging facilities are mounting, as are the costs of addressing them.

Responsible stockpile management and disarmament require not only infrastructure, but skilled scientists and engineers to manage these efforts. Like our infrastructure, over the last decade our human capital base has been underfunded and underdeveloped. Our national security laboratories have found it increasingly difficult to attract and retain the best and brightest scientists and engineers of today. Morale has declined with the lack of broad, national consensus

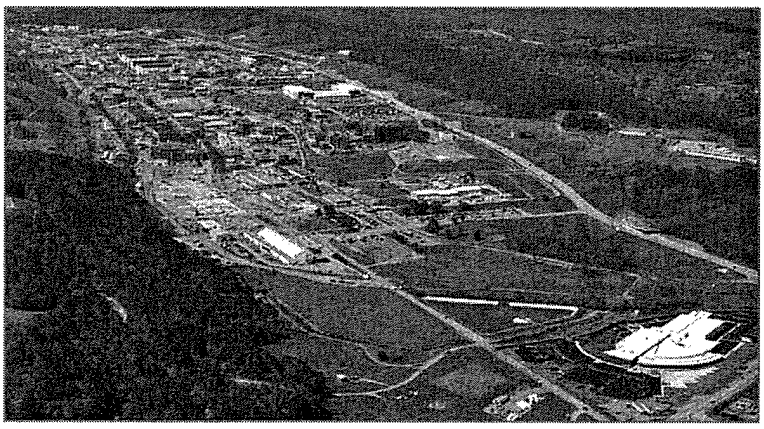
on the approach to sustaining warheads and nuclear technical capabilities. The cumulative loss of focus, expertise, and excellence on nuclear matters in the United States remains a significant challenge. A strong national commitment to these important nuclear security objectives is essential to countering this trend.

Increased investments in the nuclear infrastructure and a highly skilled workforce are needed to ensure the long-term safety, security, and effectiveness of our nuclear arsenal and to support the full range of nuclear security work to include non-proliferation, nuclear forensics, nuclear, counter-terrorism, emergency management, intelligence analysis and treaty verification.

Such investments, over time, can reduce our reliance on large inventories of non-deployed warheads to deal with technical surprise, thereby allowing additional reductions in the U.S. nuclear stockpile and supporting our long-term path to zero. A revitalized infrastructure will also serve to reduce the number of warheads retained as a geopolitical hedge, by helping to dissuade potential competitors from believing they can permanently secure an advantage by deploying new nuclear capabilities.

Efforts to strengthen the science, technology, and engineering base and address the problems in the physical infrastructure will help with the human capital problem. A renewal of the sense of national purpose and direction in nuclear strategy will also be helpful. The President has clearly outlined the importance of nuclear issues for our national security, and the importance of keeping the U.S. nuclear deterrent safe, secure, and effective at the minimum numbers required. Further, the Administration's commitment to a clear and long-term plan for managing the stockpile ensures the scientists and engineers of tomorrow will have the opportunity to engage in challenging research and development activities which is essential to their recruitment and retention.

A modern nuclear infrastructure and highly skilled workforce is not only consistent with our arms control and non-proliferation objectives; it is essential to them. By certifying the reliability of each weapon type we retain, the United States can credibly assure non-nuclear allies and partners they need not build their own, while



Aerial photo of the Y-12 National Security Complex, in Oak Ridge, Tennessee. Y-12 plays a vital role in the Department of Energy's Nuclear Security Enterprise helping ensure a safe and reliable U.S. nuclear weapons deterrent. Y-12 also retrieves and stores nuclear materials, fuels the nation's naval reactors and performs complementary work for other government and private-sector entities. Y-12 photo.

seeking greater stockpile reductions than otherwise possible. Further, a corps of highly skilled personnel will continue to expand our ability to understand the technical challenges associated with verifying ever deeper arms control reductions.

Through science and engineering programs that improve the analysis of the reliability of our warheads, we also enhance our ability to assess and render safe potential terrorist nuclear devices and support other national security initiatives, such as nuclear forensics and attribution. Expert nuclear scientists and engineers help improve our understanding of foreign nuclear weapons activities, which is critical for managing risks on the path to zero. And, in a world with complete nuclear disarmament, a robust intellectual and physical capability would provide the ultimate insurance against nuclear break-out by an aggressor.

Additionally, the industrial base activities that support the nuclear enterprise also remain critical to the nation's deterrence posture. Increased surveillance of critical commercial sector human skills, manufacturing capabilities, and sustainment capabilities is required to ensure this infrastructure remains viable to support the enterprise.

The NPR concluded that the following key investments were required to sustain a safe, secure, and effective nuclear arsenal:

- Strengthening the science, technology, and engineering (ST&E) base needed for conducting weapon system LEPs, maturing advanced technologies to increase weapons surety, qualification of weapon components and certifying weapons without nuclear testing, and providing annual stockpile assessments through weapons surveillance. This includes developing and sustaining high quality scientific staff and supporting computational and experimental capabilities. The NNSA will develop a long-term strategy that will describe the ST&E base required to meet the Stockpile Stewardship Program. The report will be delivered to the Nuclear Weapons Council in 2011.

- Funding the Chemistry and Metallurgy Research Replacement Project at Los Alamos National Laboratory to replace the existing 50-year old Chemistry and Metallurgy Research facility in 2021.

- Developing a new Uranium Processing Facility at the Y-12 Plant in Oak Ridge, Tennessee to come on line for production operations in 2021. Without an ability to produce uranium components, any plan to sustain the stockpile, as well as support for our Navy nuclear propulsion, will come to a halt. This would have a significant impact, not just on the weapons program, but in dealing with nuclear dangers of many kinds.

More broadly, the Administration supports the needed recapitalization of the nuclear infrastructure through fully funding the NNSA. New production facilities will be sized to support the requirements of the Stockpile Stewardship Program mandated by Congress and to

Declaration of Roger E. Snyder

Attachment 4

America's Strategic Posture

The Final Report of the Congressional Commission on the Strategic Posture of the United States

Advance Copy

William J. Perry, Chairman

James R. Schlesinger, Vice-Chairman

Harry Cartland
John Foster
John Glenn
Morton Halperin
Lee Hamilton
Fred Ikle
Keith Payne
Bruce Tarter
Ellen Williams
James Woolsey

6

On The Nuclear Weapons Complex

Per the request of the Congress, the Commission has reviewed carefully the state of the weapons complex that supports the U.S. nuclear deterrent. This review has generated three primary concerns, each addressed in turn below. First, the physical infrastructure is in serious need of transformation and the National Nuclear Security Administration (NNSA) has a reasonable plan to do so but it lacks the needed funding. Second, the intellectual infrastructure is in more serious trouble and significant steps must be taken to remedy the situation. Third, the governance structure of the NNSA is not delivering the needed results and should be changed.

The Physical Infrastructure

The weapons complex includes the following:

- The three laboratories: Los Alamos, Lawrence Livermore, and Sandia
- Four production plants
- The Nevada test site

All of these facilities are owned by the government and operated by various contractors.

The three laboratories are often called national laboratories or weapons laboratories (in the latter case to distinguish them from other DOE national laboratories). They are each multi-purpose, multi-disciplinary facilities with strong general science and engineering components. Each laboratory houses major supercomputing facilities and has unique, large and expensive research tools. These capabilities are utilized to support the stockpile efforts described in the previous chapter. They are also utilized by the Department of Defense, Department of Homeland Security, and intelligence agencies in support of various other national priorities. (Note that Sandia operates two facilities, one in New Mexico and one in California.)

Each of the four production plants has a distinct function. Weapons are disassembled and reassembled at the Pantex Plant in Amarillo, Texas. Retired weapons are dismantled and uranium components remanufactured at the Y-12 National Security Complex in Oak Ridge, Tennessee. This facility also stores highly enriched uranium, for both the weapons program and for naval reactors. Non-nuclear weapons components are manufactured at the Kansas City Plant in Kansas City, Missouri. Tritium is produced at the Savannah River Site, in Aiken, South Carolina.

The Nevada test site is maintained in accordance with U.S. policy to have the capacity to resume nuclear testing as a condition of sustaining the nuclear test moratorium and possible entry into force of the CTBT. The policy reflects an assessment that the prohibition of testing carries some risks, however slight. Although it is unlikely that a problem will arise requiring nuclear testing, the emergence of such a problem with the deterrent would be a matter of major significance. The NNSA says it can resume testing in 24 months. But test readiness tends to be a low priority for both NNSA and the laboratories

[T]he production complex suffered a significant period of neglect in basic maintenance. Most of the sites and many of the facilities date back to the Manhattan Project over sixty years ago [and] ... requires significant modernization and refurbishment.

The Commission's Interim Report noted that "The Stockpile Stewardship Program has been a remarkable success, much more than originally expected." This is true but incomplete. The program has enabled the weapons laboratories to develop some of the capabilities needed to ensure the long-term technical health of the stockpile, including some important new research tools enabling an understanding of the fundamental physical phenomena involving nuclear weapons. But it has generated no comparable improvements in the production complex. Indeed, the production complex suffered a significant period of neglect in basic maintenance. Most of the sites and many of the facilities date back to the Manhattan Project over sixty years ago. The production complex requires significant modernization and refurbishment.

In considering options for addressing this concern, the Commission believes it is necessary to take a long view. Physical infrastructure is unique in the long time scale involved in making changes to it. Although nuclear policy can be altered overnight and force levels can be decreased or increased (to a limited extent) in months or a few years, decisions on infrastructure can take years if not a decade or more to reach fruition.

The Commission considered arguments about establishing an analogue of the Base Realignment and Closure Commission (BRAC) utilized by the Department of Defense to consolidate the complex of aging military bases. The Commission sees such an approach as unwise. There is a simple reason:

NNSA sites are all one of a kind. Accordingly, any consolidation would require reconstituting existing capability in some new place and this would add cost, not reduce it. The specific recommendation has been made by some to close either Los Alamos or Livermore and fold needed capabilities into the remaining facility. The Commission rejects this suggestion, and not just for the reason that it would be prohibitively expensive. The preservation of two laboratories provides competitive peer review in the one area—the physics package—that cannot be tested as a matter of national policy and where theoretical understanding remains incomplete.

The preservation of two laboratories provides competitive peer review in the one area—the physics package—that cannot be tested as a matter of national policy and where theoretical understanding remains incomplete.

The Commission considered a variety of studies from recent years about how to update the complex. It is apparent that, for various reasons, none of these has achieved sustained political support.

In December 2008, the NNSA issued its own plan for complex transformation. More specifically, it issued a formal record of decision adopting plans to modify the weapons complex according to a "preferred alternative" which has been subject to extensive review and public comment. This plan would maintain all of the existing sites but would consolidate certain functions, especially at the weapons laboratories, to avoid duplication. Both Los Alamos and Livermore would retain nuclear design and engineering responsibilities in order to provide for competitive peer review. The production complex would be modernized in place, with significant consolidation within sites, especially at the Y-12 facility in Tennessee. Two major replacement facilities would be built. One at Los Alamos would replace a plutonium research and diagnostics facility that is already well past the end of its planned life; this new facility would be called the Chemistry and Metallurgy Research Replacement (CMRR). The other would replace the Uranium Processing Facility (UPF) at Y-12. The current facility was constructed as part of the Manhattan Project in World War II and the many problems and high cost of keeping it running are a testimonial to the failure over the years to make needed investments in the production complex.

The NNSA's plan has merit and should be seriously considered by the Congress. The Congress should not, however, expect that implementation of the complex transformation plan will result in major cost savings. This is unrealistic. Indeed, there may be no significant costs savings. The NNSA proposes to pay for modernization in part with management improvements. But efficiencies may not materialize. Indeed, most projected savings are relatively small in dollar terms. It hopes also to generate increasing income from external customers. But this too will not solve the problem. Moreover, the

costs of transformation will almost certainly rise. The history of nuclear facility construction shows major cost growth. These are sometimes aggravated by Congressional funding decisions that create unpredictability.

In the past, rising facility costs have been borne by taking funds from other activities of the laboratories, usually from the scientific base. As argued further below, this has had a very deleterious impact on the labs and the practice should cease.

The two planned replacement facilities will be very expensive at well over $1 billion each. Given the NNSA's historical problems in cost and schedule management of nuclear facility construction, any current cost estimates should be considered extremely uncertain. Even at currently estimated costs, these two projects would be among the largest construction projects attempted by the nuclear weapons program in the past 25 years.

This raises an obvious question about whether these two replacement programs might proceed in sequence rather than concurrently. There are strong arguments for moving forward concurrently. Existing facilities are genuinely decrepit and are maintained in a safe and secure manner only at high cost. Moreover, the improved production capabilities they promise are integral to the program of refurbishment and modernization described in the preceding chapter. If funding can be found for both, this would best serve the national interest in maintaining a safe, secure, and reliable stockpile of weapons in the most effective and efficient manner.

But if funding cannot be found, what choice should be made? Four factors should be considered:

- There are safety issues with both existing facilities, primarily due to their age. The safety concerns at the Los Alamos plutonium facility are at least as serious as those at the Y-12 uranium facility. But a short-term loss of plutonium capabilities may hurt the weapon program more than a short-term loss of enriched uranium capabilities.
- The Los Alamos plutonium facility makes a direct contribution to maintaining intellectual infrastructure that is in immediate danger of attrition (as argued further below). It assures that there is a complete long-term capability for Los Alamos and Livermore to conduct plutonium research.
- Because the future size of the stockpile is uncertain, projects that are relatively independent of stockpile size should take priority. The uranium production facility's size is influenced by stockpile size (the greater the stockpile size, the larger the needed production capacity). The Los Alamos plutonium facility is required independent of stockpile size.
- The Los Alamos facility has the more mature design.

These considerations lead the commission to the conclusion that, if priority must be given, the Los Alamos plutonium facility should receive it. A delay in construction of the Y-12 uranium processing facility may also allow some redesign to tailor the plan to new arms control agreements and their implications for long-term stockpile requirements. The time might also be used to find ways to minimize the facility's size and cost, and to learn more about secondary reuse.

A critical question in the overall plan is how much capacity should be in place to produce new weapons pits. The original pit-production facility at Rocky Flats was closed more than a decade ago. A capability to produce pits has been reestablished at Los Alamos in the TA-55/PF-4 facility. The facility has demonstrated that it can produce certifiable pits and the NNSA plans that it will be the permanent pit production facility with production of 20 pits per year and surge capabilities up to 50 and 80 pits per year. Given the new understanding of pit lifetimes, these rates ought to be sufficient to support the present stockpile or a reduced stockpile if arms control produces such a result.

The Commission notes also a chronic unwillingness of the Congress to support the programs needed to maintain test readiness. This is an essential safeguard of the no-test policy and should be supported. The Commission has also received evidence that some allies interpret the apparent lack of test readiness as a symptom of reduced U.S. commitment to extended deterrence. The Commission supports the principle of maintaining readiness to resume underground nuclear testing and recommends that the program be funded to maintain the 24-month timeline.

The Intellectual Infrastructure

The Commission's second main concern about the nuclear weapons complex is that the intellectual infrastructure there is in serious trouble—perhaps more so than the physical complex itself. It strongly recommends that significant steps be taken to remedy the situation.

The Commission's second main concern about the nuclear weapons complex is that the intellectual infrastructure there is in serious trouble....

It is important to understand the weapons laboratories are more than a complex of facilities and instruments. The foundation of their work in support of the national deterrent is a unique scientific and engineering capability. Although nuclear weapons have existed for over sixty years, weapons science was largely an empirical science for much of that period. Nuclear weapons are exceptionally complex, involving temperatures as high as the sun and times measured in nanoseconds. Understanding these weapons from first principles requires a broad, diverse and deep set of scientific skills, along with complex experimental tools and some

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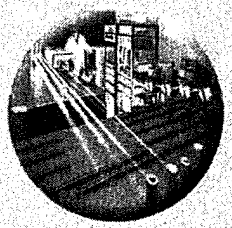
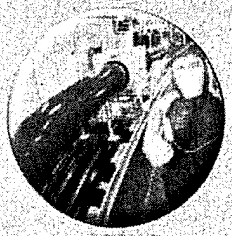
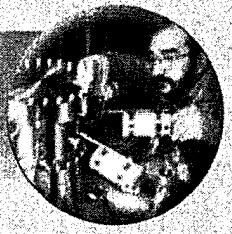
Attachment 5

Annex D

FY 2011 Biennial Plan and Budget Assessment on the Modernization and Refurbishment of the Nuclear Security Complex







May 2010

National Nuclear Security Administration
United States Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

U.S. DEPARTMENT OF ENERGY

NNSA National Nuclear Security Administration

Table D-1.Limiting Capacities for Weapons Activities

Function	Rate-Limiting Capability	Capacity Today	Baseline Capacity Provided by a Capability-based Infrastructure	Risk Mitigation Needed to Ensure Future Capability
Design, Certification, Testing, Surveillance and ST&E Base	Number of simultaneous LEP's supportable	1 LEP	2-3 LEPs	Support for lab ST&E capabilities and phasing of LEP activities
	Warhead certifications and assessments	Up to 8 warhead types	Up to 8 warhead types	Stable support for Nevada Test Site (NTS) and lab ST&E capabilities, and surveillance
Plutonium	Pits requiring most manufacturing process steps	10-20 pits per year	Up to 80 pits per year	Complete Plutonium Facility-4 (PF-4) upgrades, waste capability investment and CMRR-NF construction
Uranium	Canned Subassembly (CSAs) requiring reuse/inspection	40 CSA per year	Up to 80 CSAs per year	Construct UPF
	Refurbished or new CSAs.	160 CSA per year		
Tritium	Tritium quantity generated in TVA reactors	Sufficient for all scenarios	Sufficient for all scenarios	Sustain existing capabilities
	Reservoir loading/ unloading operations	Sufficient for all scenarios	Sufficient for all scenarios	Sustain existing capabilities
High Explosives (HE)	Specialty explosive manufacturing.	1000 pounds per year	Up to 2500 pounds per year	Construct HE Formulation facility
	HE component fabrication.	300 hemispheres per year	Up to 500 hemispheres per year	Construct HE Pressing and Component Fab./ Qual. facilities
Non-nuclear Components Production	Non-nuclear component production	Sufficient for Limited Life Components (LLCs) and 2 phased LEPs	Sufficient for LLCs and 2-3 phased LEPs	Implement Kansas City Responsive Infrastructure Manufacturing and Sourcing (KCRIMS) and recapitalize Microsystems and Engineering Science Applications (MESA) Complex. Stable Campaign profile to maintain capabilities
Assembly/ Disassembly	Dismantlement, disassembly and inspection, and LEP operations	350 equivalent units	Up to 600 equivalent units	Sustain existing facilities and pre-plan workforce needs.
Transportation	110 convoys	Sufficient for all scenarios	Sufficient for all scenarios	Sustain existing capabilities
Storage	Warhead and special nuclear material quantities	Not sufficient for all scenarios	Sufficient for all scenarios	Must address on enterprise level, construct CMRR, and ship surplus pits to Savannah River Site (SRS). Maintain NTS/Device Assembly Facility (DAF) for future reserve capacity

Limiting Capacities

Plutonium pit manufacturing capacity provides the most direct rate-limiting constraint on stockpile modernization scenarios in the near term. The design, certification, and test readiness capacity could be limiting without stability and adequacy of funding for the ST&E base, including experimental facilities support. Uranium and high explosive production capacities are sufficient today but in some cases are at risk because of the age and potential unreliability of existing facilities. Highly-enriched uranium (HEU) manufacturing capacity, in particular, has no backup and could go to zero if existing 60 year old facilities are shut down for any reason. Non-nuclear production capacities are estimated to be sufficient but the age and surplus square footage of existing facilities makes retention of the existing Kansas City Plant economically inefficient. Micro-electronic development and "trusted foundry" radiation-hardened

1.E. Description of the Plan to Modernize the Nuclear Weapons Complex

The plan to modernize and refurbish the complex is fundamentally about maintaining a strong deterrent without relying on underground testing. While the focus of modernization and refurbishment may be on the physical infrastructure, the facilities and equipment cannot be separated from the ST&E base or the contractor workforce that make it function. To that end any plan to modernize and refurbish the physical infrastructure must be built around the ST&E base and the contractor workforce.

The Plan for the Physical Infrastructure

Over the past two decades, the nuclear weapons complex has been consolidated from 15 to 8 sites comprised of three laboratories, four production plants, and a test site. This transition has been guided by a change in philosophy from a *capacity-based* complex capable of designing and manufacturing thousands of nuclear warheads to a *capability-based* complex with a necessary set of critical skills and facilities. This smaller, safer, more secure, and more effective physical infrastructure will, when complete, ensure all essential capabilities for the ST&E and production facilities provide sufficient capacity for future needs. While the transition has successfully begun, we need to continue to recapitalize major facilities and reduce unnecessary facility square footage. NNSA recognizes that this capability based approach is not without risks – it is more vulnerable to single-point failures and less capable of responding to production spikes resulting from technical or geopolitical surprises. Managing these risks is dependent on an integrated approach to managing the stockpile, ST&E development, and implementation of a modern physical infrastructure.

The President's budget request and the NNSA's approved FY 2011 – FY 2015 Future Year Nuclear Security Program Plan (FYNSP) budget defines the projects that are approved, consistent with the 2010 NPR recommendations. Other future projects (post-FYNSP) identified are under consideration as they fall outside the NNSA's approved budget request. These post-FYNSP projects will be considered in the NNSA future budget requests.

Science, Technology, and Engineering: The nuclear security laboratories (Los Alamos, Livermore, and Sandia), test site and nuclear weapons production plants work in partnership to sustain the nuclear deterrent. Their ST&E experimental, computational, technology development, and production facilities support the nuclear stockpile lifecycle from design, development, production, certification, testing, assessment, surveillance, and maintenance through dismantlement. While much of the ST&E infrastructure was built more recently than the production complex, a number of elements still require revitalization. An immediate need is the completion of Test Capabilities Revitalization Phase 2 to support B61 LEP development and qualification against stockpile-to-target sequence requirements. In addition, a major new computer acquisition will be required to support the complex 3D analyses and Uncertainty Quantification studies essential to assuring stockpile safety, security, and reliability.

Plutonium: The ability to replace plutonium parts is impeded by the recapitalization backlog in plutonium facilities at Los Alamos; key equipment is becoming obsolete. A key near-term priority is to replace the 50-year old Chemistry and Metallurgy Research Facility, which has well-documented safety issues and supports an essential capability base, with the CMRR-NF.

test readiness investments. Any future test requirements can then be met with modern capabilities.

The Future of the Physical Infrastructure and Key Milestones

Key milestones on the path to the future include:

- Complete Test Capabilities Revitalization in FY 2013 to support B61 LEP design and development.
- Occupy a modern, leased non-nuclear production facility in FY 2014 as part of the Kansas City Responsive Infrastructure Manufacturing and Sourcing (KCRIMS) initiative.
- Complete recapitalization of tooling and critical process systems for MESA by FY 2016, which is necessary to support all future LEPs.
- Complete the Los Alamos Radioactive Waste projects in FY 2015.
- Complete the Pantex High-Explosives Pressing Facility project in FY 2017.
- Complete construction of the Los Alamos CMRR-NF in FY 2020 with full operations in 2022.
- Complete construction of the Y-12 UPF in FY 2020 and full operations in 2022.

The Plan for the Workforce

NNSA future plans rely upon the strength of the federal and contractor workforce. The nuclear weapons that constitute the U.S. nuclear arsenal are highly specialized devices, and the suite of skills necessary to design, produce, assess, and dismantle these weapons is specialized, diverse, and highly demanding. It will not be possible for the NNSA plan to succeed without explicit focus on recruiting, training, retaining, and motivating the federal and contractor workforce that spans the nuclear security laboratories, test site, the production plants, and the NNSA.

Since the end of the Cold War, NNSA federal and contractor workforce issues have been dynamic, with positive and negative trends. The stewardship program drove staff strength in computer science, nuclear physics, computational engineering, numerous engineering disciplines, experimental sciences, laser physics, and similar high tech fields. This expanded talent pool developed the stewardship tools used to improve stockpile knowledge and to support life extensions.

However, personnel reductions totaling 20 percent have occurred over the past five years in other key areas, including stockpile stewardship, surveillance, and life extensions. As a result, we have lost both new employees and the experienced staff needed for mentoring and guidance. Success in sustaining the deterrent requires that we stabilize and, in selected areas, reverse this downward trend.

While stockpile stewardship was preserving some scientific talent, the experienced scientists and engineers responsible for the deployed stockpile design and certification were advancing in

technology, and dynamic material experiments. Pit manufacturing is the most rate-limiting constraint on modifications that can be made to the stockpile nuclear explosives package in the event that the pit requires modification. Plutonium processing for nuclear weapons includes all of the processing steps to convert a raw material into a finished product. No opportunity exists for out-sourcing this work or leveraging capacity from the American industrial base. All plutonium capabilities are maintained by a core team of trained and qualified plutonium handling personnel. The present plutonium technology base is adequate to satisfy today's requirements for plutonium programs. The capabilities are regularly exercised and qualified to manufacture a legacy pit type in small annual quantities.

Key Facilities

Plutonium facilities represent a key physical resource for supporting the nuclear weapon stockpile. Due to the hazards associated with plutonium these facilities are very complex, expensive, and difficult to acquire. The typical planning basis for acquiring a new plutonium facility is more than 15 years and several billion dollars. Therefore, close coordination between program planning and facility planning is necessary to ensure alignment between program requirements and the facility design. The major plutonium facilities are located at Los Alamos. The Superblock at Livermore is being transitioned to a Security Category III research and development facility. A system diagram (Figure D–7) shows the major Los Alamos facilities involving plutonium in 2009 and the interfaces to other key facilities associated with plutonium.

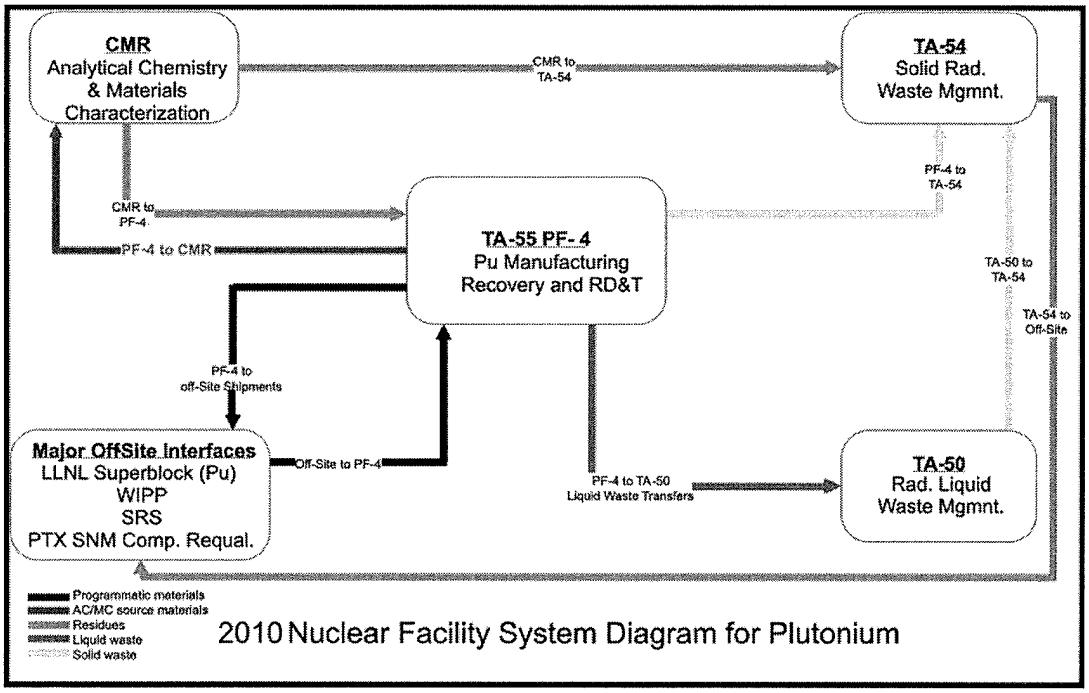


Figure D–7. Key LANL Plutonium Facilities in 2010.

The system diagram changes with time as new facilities replace older facilities, including CMRR-NF replacing CMR, Radioactive Liquid Waste Treatment Facility that will improve treatment capability at TA-50, and the TRU Project replacing TA-54. The overall system

requires reliable service from each of the component facilities shown to support plutonium requirements as presented in Table D-6.

Table D-6.Key Facilities For Plutonium.

Key Facilities For Plutonium	
Facility Name	**Facility Function**
LANL—Plutonium processing facility (PF-4)	Plutonium Processing.
LANL—CMR	Analytical Chemistry and Materials Characterization.
LANL—Radioactive Liquid Waste Treatment	Waste Treatment and Processing.
LANL—Solid Radioactive Waste Management	Solid Waste Receipt and Staging.
LANL—Main Shops and Beryllium Technology Facility	Support facilities—Non-nuclear pit parts including beryllium.
LLNL—Superblock Plutonium Facility	Security Cat I/II Plutonium R&D until 2012. In the process of transitioning to security Cat III status by 2012.
PTX—SNM Component Requalification Facility	Pit Refurbishment.

Future State

In the near- and long-term, the facilities used to execute plutonium missions are refurbished and/or replaced to maintain a posture for the desired spectrum of weapons life extension options.

Planned Actions

Having a plutonium processing capability is essential to the NNSA mission. It takes years to bring a nuclear facility from a planned alternative to full operations capacity. The short-term action is to support plutonium analytical chemistry and material characterization with replacement of the CMR facility with the CMRR-NF project. There are well documented safety issues with the old CMR facility. This includes work to:

- Develop and execute a program to align existing plutonium capabilities to address the forecasted plutonium capacity requirements and to periodically re-invest in existing capabilities. This capability re-investment is important to ensure responsiveness because the current capability runs the risk of single point failure. Process equipment, for example, typically takes between 3 to 8 years to acquire and deploy inside an operating plutonium facility. The FY 2011 investments in deployed equipment in PF-4 are realized in the 2014-2019 time period.

- Fund and execute line item projects for plutonium-related facility upgrades and replacements for plutonium facilities.

The series of actions required to transition the plutonium infrastructure to support the long-, mid- and short-term duration are critical activities. In the short—midterm, NNSA has defined plans to ensure that the plutonium technical capability is maintained and sufficient to support the base capability and future projected capacities.

CMRR-NF

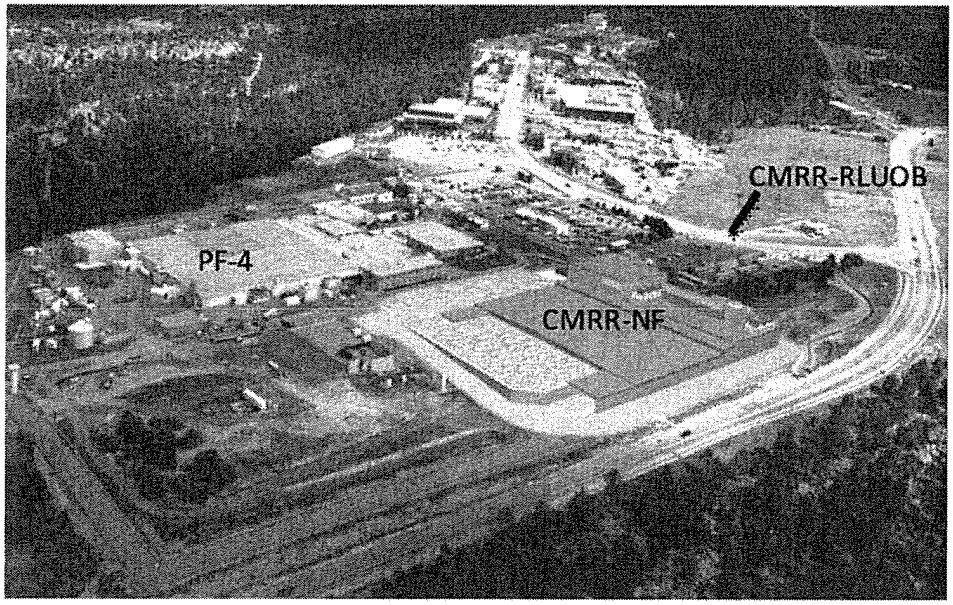


Figure D–8. The CMRR Project is comprised of two facilities, the Chemistry and Metallurgy Research Replacement-RLUOB and the CMRR-NF. Both of these facilities support the plutonium operations inside of PF-4, the main Pu processing facility at Los Alamos.

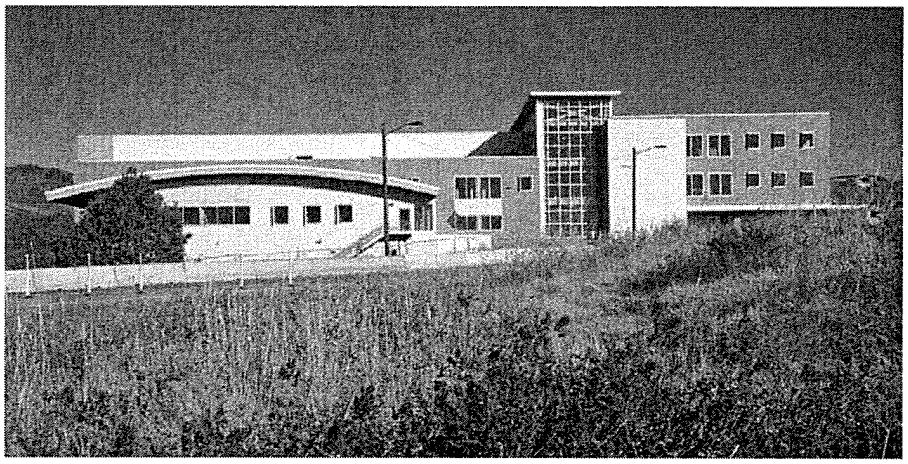


Figure D–9. Chemistry and Metallurgy Research Replacement Radiological Laboratory/ Utility/Office Building circa November 2009.

Proceeding with the construction of CMRR-NF project is consistent with the DOE Secretary of Energy's Strategic Plan and the NPR. This project provides analytical chemistry, materials characterization, and vault storage in support of any program using plutonium. There are two separate facilities that form a part of the CMRR project (the Radiological Laboratory/Utility/Office Building (RLUOB) and the CMRR-NF) that will allow complete transition of NNSA operations from the aging CMR facility. The RLUOB facility construction is complete and process equipment installation is proceeding. CMRR operations (both RLUOB

and CMRR-NF) will provide direct analytical chemistry and material characterization support for PF-4 plutonium operations. In order to support program requirements, CMRR-NF construction must be complete by 2020 and it must be fully operational by 2022.

CMRR-NF provides analytical chemistry and material characterization support to PF-4 where plutonium components are evaluated, manufactured and/or re-furbished in support of the current stockpile (annual plutonium component surveillance) and/or changes to the stockpile in support of the NPR (Life extension programs) as well as R&D activities on plutonium. This new facility will replace the functions currently resident in the 1952 CMR facility.

The overall strategy associated with CMRR is to provide a pathway for continuous support to plutonium programs between now and 2020. This requires a phased approach to moving existing operations out of the CMR facility and into the CMRR facilities. Presently, we rely completely on the CMR facility for support services to plutonium programs. When the RLUOB is fully equipped and operational in 2012, it will replace a portion of the existing CMR functions, thus reducing the risk exposure in the aging CMR facility. As the CMRR-NF comes on-line the remaining functions in CMR will transition to the new building and the CMR facility will be available for decommissioning.

TA-55 Reinvestment Phase I, II and III (TRP)

The PF-4 facility is a multi-purpose facility that houses a number of plutonium programs and is the only full service plutonium facility for Category I quantities of plutonium and pit manufacturing in the United States. The TA-55 Reinvestment Project (TRP) Phases I, II, and III are intended to provide selective replacement and upgrades of major facility and infrastructure systems in PF-4. The TRP Phase I, II, and III construction will extend the useful life of PF-4 and the safety systems that support its critical operations.

The TRP Phase I and II project will recapitalize facility subsystems that are nearing the end of their design life and must be replaced. These subsystems are beginning to require excessive maintenance. As a result, the facility is experiencing increased operating costs and more importantly, reduced system reliability. Compliance with safety and regulatory requirements is critical and needed for this 1978 facility. The types of subprojects in TRP Phase II include: replacement of uninterruptible power supply, refurbishment of air dryers, replacement of confinement doors, seismic upgrades for glovebox stands, criticality alarm system upgrades, and replacement of exhaust stacks. These project phases will enhance safety and enable cost effective operations that will provide reliable facility support for an additional 25 years.

A phased acquisition strategy has been developed for the TRP projects. The TRP projects are proposed for execution as three separate capital acquisitions. TRP Phase I physical construction is scheduled to be complete in FY 2011.

TA-55 Reinvestment Project III is the third line item project to upgrade more of the key systems that are nearing or have exceeded their design lifetimes. The project will focus on facility infrastructure systems (e.g., mechanical, electrical, structural); it will not encompass programmatic equipment. TRP Phase III will be considered in the post 2011 FYNSP period.

5. Schedule

This section is in response to:

> 50 USC Sec. 2455(b)(2)(B). A schedule for implementing those measures determined necessary under subparagraph (A) during the 10 years following the date of the plan.

5.A. 20-Year Schedule

The Schedule for the modernization and refurbishment of the infrastructure of the nuclear weapons complex is aggressive and continues a concerted effort to transform into a more efficient and capable organization. NNSA will begin to reap the benefits of previous consolidation efforts, such as the reduction of the Superblock Facility to Security Category III at Lawrence Livermore National Lab. Additionally, dramatic steps in science such as the Ignition Campaign are just beginning as a result of previous investments in the National Ignition Facility. Also the Highly Enriched Uranium Material Facility is now complete and receiving material. These are certainly steps in the right direction, but much remains to be done.

Key physical infrastructure actions and milestones for the next ten years to support our path to achieve a future transformed complex include the following:

- Complete the design and begin construction of the Chemistry and Metallurgy Research Replacement (CMRR) Nuclear Facility (NF) at Los Alamos – a facility that conducts plutonium research and development and provides analytical capabilities in support of pit surveillance and production. Plan and program to complete construction no later than 2020, and ramp up to full operations in 2022.

- Increase pit production capacity and capability at the adjoining Plutonium Facility (PF)-4 (part of the main plutonium facility) at Los Alamos to demonstrate pit reuse by 2017 and production by 2018-2020. Plan and program to ramp up to a production capability of up to 80 pits per year in 2022.

- Complete the design and begin construction of the Uranium Processing Facility (UPF) at Y-12 to support production and surveillance of highly-enriched uranium components. Plan and program to complete construction no later than 2020; ramp up to a production capability of up to 80 Canned Subassemblies (CSAs) per year by 2022.

It is also important to highlight that the focus of this report has been on the "major" critical single point failure types of projects. There are many other "minor" projects that are needed annually for the next two decades. Resources to fund the major projects will help the complex to support the nuclear deterrent mission. Continued focus on all projects will be required.

The most important facilities and infrastructure with key milestones for the next ten year time frame that require recapitalization include:

- Complete CD-4 for the Los Alamos CMRR-NF in FY 2020.

- Complete CD-4 for the Y-12 Uranium Processing Facility in FY 2020.

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW MEXICO

THE LOS ALAMOS STUDY GROUP,

Plaintiff,

v.

UNITED STATES DEPARTMENT OF ENERGY, et al.,

Federal Defendants.

Case No. 1:10-CV-0760-JH-ACT

DECLARATION OF HERMAN C. LEDOUX

I, Herman C. LeDoux, pursuant to Title 28, United States Code, Section 1746 declare:

1. I am the Federal Project Director for the Chemistry and Metallurgy Research Building Replacement (CMRR) Project at the Los Alamos Site Office (LASO) of the National Nuclear Security Administration (NNSA), a semi-autonomous agency within the Department of Energy (DOE). I have held this position since June 2005. Prior to serving in this capacity, I served as the Assistant Manager for Projects and the LASO Deputy Site Manager. I am a graduate of the University of New Mexico with a B.S. in Civil Engineering.

2. This declaration provides information on the current status of the CMRR Nuclear Facility (CMRR-NF), existing National Environmental Policy Act (NEPA) coverage under the 2003 CMRR Environmental Impact Statement (CMRR EIS) and other analyses, and why the current design process for the Project should continue. The CMRR-NF Project is currently in the design

phase, and construction of the CMRR-NF building has not begun. The information contained herein is based on my personal knowledge and information provided to me during the performance of my official duties.

3. The *Final Environmental Impact Statement for the Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory, Los Alamos, New Mexico* (DOE/EIS0350)(CMRR EIS) was issued in November 2003, and a Record of Decision (ROD) was issued in February 2004 (69 Fed. Reg. 6967). The 2003 CMRR EIS analyzed the potential environmental impacts associated with replacing the existing Chemistry and Metallurgy Research (CMR) Building, as well as the potential environmental impacts associated with the reasonable alternatives to replacing the CMR building. In the 2004 ROD, NNSA stated its decision to, among other things, construct two new buildings in Technical Area-55 (TA-55) at the Los Alamos National Laboratory (LANL) to replace the aging CMR building located within LANL's Technical Area-3 (TA-3).

4. The 2004 ROD consisted of a decision to construct: (1) an above ground building to house administrative office and support functions, now referred to as the Radiological Laboratory Utility Office Building (RLUOB); (2) and a below ground building to house consolidated special nuclear material (SNM)[1]–capable Hazard Category 2 work space, CMRR-NF. Both buildings would have multiple stories, each with floor space for operations and for building operational requirements for the safety of the public, the workers, and for the protection of the environment.

[1] Special nuclear material includes plutonium, uranium enriched in the isotope 233 or the isotope 235, and any other material that the U.S. Nuclear Regulatory Commission determines to be special nuclear material.

5. In addition to the 2003 CMRR EIS and the resulting 2004 ROD, the potential environmental impacts associated with the construction and operation of the CMRR-NF were analyzed in the May 2008 *Final Site-Wide Environmental Impact Statement for Continued Operation of Los Alamos National Laboratory, Los Alamos, New Mexico* (DOE/EIS-0380) as a part of the No Action Alternative and each of the action alternatives for continued operation of LANL. The potential environmental impacts associated with the construction and operation of the CMRR-NF were also analyzed as part of the analysis of certain alternatives in the October 2008, *Complex Transformation Supplemental Programmatic Environmental Impact Statement* (DOE/EIS-0236-S4).

6. Since the 2004 CMRR ROD, some aspects of the proposed CMRR-NF Project plans have changed from what was foreseen when the 2003 CMRR EIS was prepared. As a result, DOE and NNSA are preparing a Supplemental Environmental Impact Statement (SEIS) to analyze the potential environmental impacts associated with those proposed changes and their reasonable alternatives.

7. As a result of the decisions made in the 2004 ROD, project personnel have engaged in an iterative planning process for the RLUOB and the CMRR-NF at TA-55. The construction of the RLUOB has been completed.

8. In concept as analyzed in the 2003 CMRR EIS, the CMRR-NF was anticipated to include approximately 200,000 gross square feet of interior floor space. The current interior floor space in the proposed CMRR-NF, which is still subject to change through design maturation, is approximately 400,000 gross square feet due to changes in safety requirements, updated building

codes associated with the construction and operation of a more robust nuclear facility, and other technical considerations. However, the current interior mission space allocated for chemistry operations and material characterization activities within the CMRR-NF is the same or less than contemplated in the 2003 CMRR EIS.

9. In my experience, DOE and NNSA engage in an iterative process before making a final design decision. Since the 2004 ROD, new building codes, new security requirements, new site seismic requirements,[2] energy and sustainability initiatives, and safety basis integration requirements have been combined with an evolved understanding of the support systems and facility characteristics required for safe and secure operations. The planning and design work for the CMRR-NF have followed this iterative process pattern in order to account for these modifications and to improve worker and public safety.

10. As decided in the 2004 ROD, the CMRR-NF was to have both above and below ground components. As conceived, the above ground laboratory space would have included a grated walking space that would permit workers to perform inspection, maintenance and repair on the utility systems. During the iterative design process, however, new seismic information became available in 2007. As a result, the design engineering team focused on the need for additional

[2] Prior to 2007, the seismic design requirements at LANL were based on a Probabilistic Seismic Hazards Assessment (PSHA) which was completed in 1995. Field investigations since then revealed that large earthquakes occur more frequently and that small earthquakes occur less frequently than previously thought. This information was incorporated into a complete update to the 1995 PSHA. This Update to the PSHA (UPSHA) was completed in 2007. As a result of this update, the seismic design ground motions resulting from a projected seismic event increased approximately 50%. Accordingly, LANL invoked more stringent seismic design requirements in its Engineering Standards Manual to account for that increase. The CMRR-NF Project adopted those more stringent design requirements.

structural stability and replaced the open-grated walking space with a hardened structural floor. This hardened floor area, known as the interstitial floor level, is now designed to be part of the facility. This enclosed, hardened floor area, while not part of the mission space for operations, would count as floor space within the building and would run across the entire length of the building, except in the proposed vault sections.

11. A similar design evolution occurred with the basement level. As a result of the need to design a more robust structure, the design of the mezzanine level would include splitting a large portion of the upper and lower parts of the basement into two floors. Like the interstitial floor, the mezzanine utility floor would run across the entire building, except in the proposed vault sections. Photos of a similar design in the already-constructed RLUOB building are visible in Attachment 1. This change in the design of the interstitial and mezzanine floors accounts for a large portion of the revised internal square footage estimate. The proposed footprint sits well within the site analyzed in the 2003 CMRR EIS. The analyzed site is constrained by the location of the RLUOB building on the east, the existence of the security fence on the west and north, and the roadway and canyon edge on the south.

12. Another proposed change in the design of the CMRR-NF that accounts for the increase amount of floor space involves the relocation of water tanks that serve fire protection systems from outside the building's exterior walls to the inside the building.

13. Incorporating new seismic information for the site was a principal factor for requiring the design of thicker, stronger walls and floors that added mass to the proposed building. These required enhancements will result in a building that would survive the revised earthquake criteria

without an adverse impact on mission functionality, capability, safety of the public, the workers, or the environment.

14. Design of the CMRR-NF is not complete, nor will it be completed by the time the SEIS is completed. In fact, continuing the design process will provide important information for the analysis in the SEIS needed to understand and address uncertainties associated with the construction of the CMRR-NF. Continuing with the design effort is expected to provide beneficial and reliable information related to the following:

a. CMRR-NF Building Elevation--Continuing the design work will lessen the risk of inaccuracies in the calculations associated with the performance of the building structure during projected seismic or postulated accident events analyzed in the SEIS. Continuing the design effort will inform decision-makers regarding the viability of construction options, including those regarding the depth of the foundation of the proposed building; the amount of engineered fill necessary to replace any soils removed to accommodate the foundation; the quantity of concrete needed for construction; constructing more of the building above grade; and the various safety and security implications of building designs.

b. Potential realignment of Pajarito Road--Design options include no realignment of the road and a partial shift of the road a number of feet to the south where the road runs adjacent to the proposed building site of the CMRR-NF. The use of the Pajarito Road, the amount and type of construction traffic that would be needed to support the construction of the CMRR-NF and the activities associated with the various construction

alternatives analyzed in the SEIS are directly impacted by the design efforts underway. Continuing with the design effort will assist the project personnel to understand the potential environmental impacts associated with the construction alternatives that will be analyzed in the SEIS.

c. Potential construction of a new electrical substation--No determination has been made whether the power demands of the proposed CMRR-NF will necessitate the construction of a new electrical substation or whether the existing electrical infrastructure is sufficient. The design effort, including the extent to which energy efficient features can be incorporated into the design of the proposed CMRR-NF and the other action alternatives that will be analyzed in the SEIS, will determine the electricity demands. As a result, the potential environmental impacts associated with the construction of a new electrical substation will be analyzed in the SEIS.

d. Potential construction of two concrete batch plants--Based on up-to-date information, no determination has been made whether it may be necessary to construct one or two concrete batch plants as part of the construction of the proposed CMRR-NF. As a result, the potential environmental impacts associated with the construction and operation of up to two concrete batch plants will be analyzed in the SEIS. Factors to be considered in making this determination include the amount of concrete needed for the CMRR-NF and the need for redundancy should one plant require maintenance or repair. Continuing with the design effort will assist DOE and NNSA in calculating the amount of concrete needed for construction of the proposed building and a more accurate analysis of the air quality impacts, among others.

15. The CMRR-NF project team is currently composed of federal employees, LANL management and operating (M&O) contractor employees, and subcontractor employees employed by various architectural and engineering (A/E) firms. Many of the employees working on the design of the proposed CMRR-NF specialize in the design of buildings housing nuclear materials or operations involving nuclear materials.

16. The procurement process that results in the selection of A/E firms for this type and magnitude of project normally requires approximately 12 months. The existing A/E firms have been working on various aspects of the CMRR-NF project since 2004. This work has included design activities, seismic studies, and Value Engineering[3] studies. If the Court were to enjoin the work of these A/E firms for a period of approximately eight months, the period expected to complete the SEIS and issue a ROD, DOE/NNSA and its M&O contractor would be faced with a decision to continue to pay the costs associated with the A/E contracts and an idle workforce or terminate the contracts and face the prospect of terminating 170 A/E contract employees or reassigning these employees to other projects. The monthly cost associated with maintaining the availability of this specialized engineering expertise is approximately $1 million in labor costs. If these 170 A/E contract employees were terminated or reassigned, it is likely that LANL would lose their specialized expertise.

17. In addition, if the Court were to enjoin the existing work on the CMRR-NF Project, the DOE/NNSA M&O contractor would be faced with the decision concerning the future of

[3] Value Engineering is a systematic method to improve the "value" of goods or products and services, in our case design, by using an examination of function. Value, as defined, is the ratio of function to cost. Value can therefore be increased by either improving the function or reducing the cost. It is a primary tenet of Value Engineering that basic functions be preserved and not be reduced as a consequence of pursuing value improvements.

approximately 125 employees currently dedicated to the CMRR-NF Project. If these employees could not be transferred to other productive work at LANL, these employees may face the prospects of unemployment in a difficult economy.

18. After a cessation of work and the termination of the A/E contracts, the effort to select new A/E contractors would take at least one year from when a decision whether to resume is made. The amount of time depends upon the procurement process followed. If a non-competitive process[4] were available, the procurement process could take up to 12 months beginning with the preparation of a new scope of work to the signing of new contracts. If a competitive process were required, the process to select new A/E contractors would involve additional steps and take longer than a non-competitive process.

19. Stopping the design work at this juncture and having to select new A/E contractors after a cessation of design work for approximately eight months would have an immediate cost impact from the point of cessation. The hiatus in the progress of the work from delaying the schedule on the CMRR-NF would cost the American taxpayer between $6 million and $8 million per month.[5]

[4] If the current A/E design agents are still available and interested, the government would determine if it was in its best interest to re-establish the contracts and whether these contracts could be justifiably sole-sourced.

[5] This $6 million to 8 million estimate is derived by using an escalation factor of 2 % and 3%. Cost escalation is experienced by the economy worldwide and accounts for the time value of money. Historic data on escalation rates indicate that they are difficult to accurately predict although the generally accepted average range is 2 to 3%. When the median value of the entire cost range of the project ($3.7 billion to 5.8 billion) is escalated, approximately $100 million per year must be added for the time value of money.

20. I certify that Attachment 1 is a true and correct copy of documents used during the course of my usual business.

I swear under the penalty of perjury that the foregoing is true and correct.

Dated this 20th day of December, 2010, in Los Alamos, NM.

Herman C. LeDoux
Federal Project Director
Los Alamos Site Office

Declaration of Herman C. LeDoux

Attachment 1

Photos 1 and 2 show the CMRR RLUOB mezzanine floor space on the upper level of the basement floor. This space assists in maintenance, inspection, and repair of utility systems. The floor space is tightly packed with utility systems. The low ceiling height allows access to these systems.

Photo1:

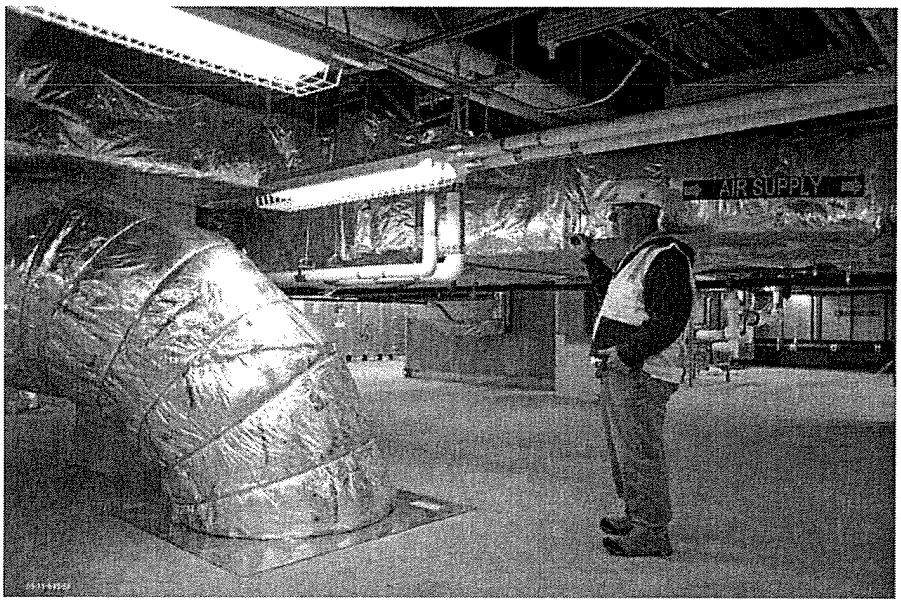
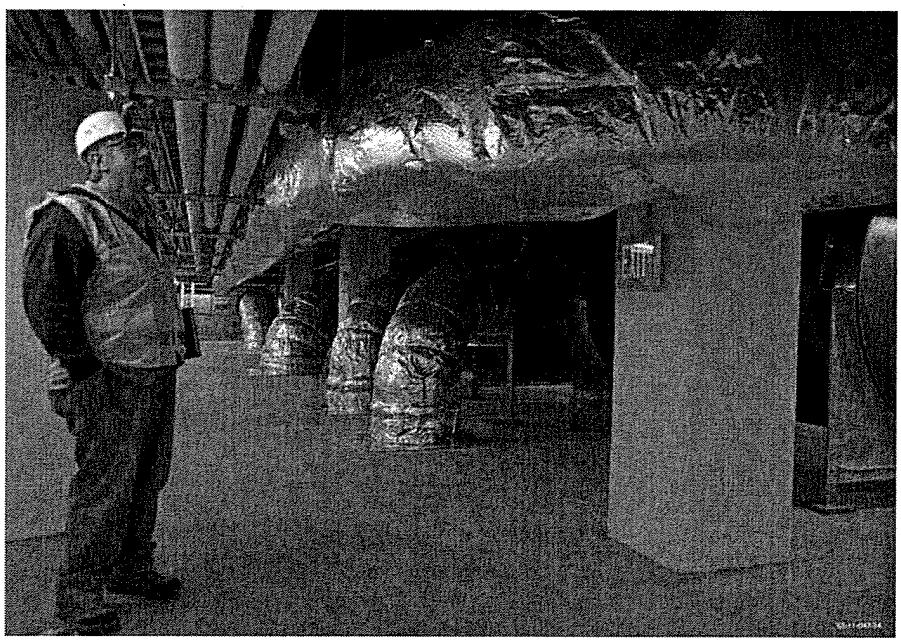


Photo 2:



November 2010 Update to the National Defense Authorization Act of FY2010
Section 1251 Report
New START Treaty Framework and Nuclear Force Structure Plans

1. Introduction

This paper updates elements of the report that was submitted to Congress on May 13, 2010, pursuant to section 1251 of the National Defense Authorization Act for Fiscal Year 2010 (Public Law 111-84) ("1251 Report").

2. National Nuclear Security Administration and modernization of the complex – an overview

From FY 2005 to FY 2010, a downward trend in the budget for Weapons Activities at the National Nuclear Security Administration (NNSA) resulted in a loss of purchasing power of approximately 20 percent. As part of the 2010 Nuclear Posture Review, the Administration made a commitment to modernize America's nuclear arsenal and the complex that sustains it, and to continue to recruit and retain the best men and women to maintain our deterrent for as long as nuclear weapons exist. To begin this effort, the President requested a nearly 10 percent increase for Weapons Activities in the FY 2011 budget, and $4.4 billion in additional funds for these activities for the FY 2011 Future Years Nuclear Security Plan (FYNSP).[1] These increases were reflected in the 1251 report provided to Congress in May 2010.

The Administration spelled out its vision of modernization through the course of 2010. In February, soon after the release of the President's budget, the Vice President gave a major address at the National Defense University in which he highlighted the need to invest in our nuclear work force and facilities. Several reports to Congress provided the details of this plan, including: NNSA's detailed FY 2011 budget request, submitted in February; the strategy details in the *Nuclear Posture Review* (NPR) (April); the 1251 report (May); and the multi-volume *Stockpile Stewardship and Management Plan (SSMP)* (June). Over the last several months, senior Administration officials have testified before multiple congressional committees on the modernization effort.

The projections in the Future Years Nuclear Security Plan (FYNSP) that accompanied the FY 2011 budget submission and the 1251 report by the President are, appropriately called, 'projections.' They are not a 'fixed in stone' judgment of how much a given project or program may cost. They are a snapshot in time of what we expect inflation and other factors to add up to, given a specific set of requirements (that are themselves not fixed) over a period of several years. Budget projections, whether in the FYNSP and other reports, are evaluated each year and adjusted as necessary.

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[1] After adjustment for the transfer of the Pit Disassembly and Conversion Facility from the Weapons Activities account to the Defense Nuclear Nonproliferation Account the increase over the FYNSP is actually $5.4 billion.

EXHIBIT 1

Secretary of Energy is convening his own review, with support from an independent group of senior experts, to evaluate facility requirements.

The overriding focus of this work is to ensure that UPF and CMRR are built to achieve needed capabilities without incurring cost overruns or scheduling delays. We expect that construction project cost baselines for each project will be established in FY 2013 after 90% of the design work is completed. At the present time, the range for the Total Project Cost (TPC) for CMRR is $3.7 billion to $5.8 billion and the TPC range for UPF is $4.2 billion to $6.5 billion. TPC estimates include Project Engineering and Design, Construction, and Other Project Costs from inception through completion. Over the FYNSP period (FY 2012-2016) the Administration will increase funding by $340 million compared with the amount projected in the FY 2011 FYNSP for the two facilities.

At this early stage in the process of estimating costs, it would not be prudent to assume we know all of the annual funding requirements over the lives of the projects. Funding requirements will be reconsidered on an ongoing basis as the designs mature and as more information is known about costs. While innovative funding mechanisms, such as forward funding, may be useful in the future for providing funding stability to these projects, at this early design stage, well before we have a more complete understanding of costs, NNSA has determined that it would not yet be appropriate and possibly counterproductive to pursue such a mechanisms until we reach the 90% design point. As planning for these projects proceeds, NNSA and OMB will continue to review all appropriate options to achieve savings and efficiencies in the construction of these facilities.

The combined difference between the low and high estimates for the UPF and CMRR facilities ($4.4 billion) results in a range of costs beyond FY 2016 as shown in Figure 3. Note that for the high estimate, the facilities would reach completion in FY 2023 for CMRR and FY 2024 for UPF. For each facility, functionality would be attainable by FY 2020 even though completion of the total projects would take longer.

Table 2. Continued

Resource	*CMRR EIS Basis for Impact Analyses*	*Current CMRR Project Plans*	*Potential Consequences of Current CMRR Project Plans*[1]
Natural Gas	Construction (NF & supporting structures): • No information provided Operations (RLUOB and NF): • No information provided	Construction (NF & supporting structures): • None Operations (RLUOB and NF): • 140 Mm cu ft/yr, 12% increase in usage (use of natural gas is restricted to the utility building attached to the RLUOB to supply boilers and emergency generators)	The CMRR EIS did not project the amount of natural gas needed for construction or operations at the RLUOB and CMRR-NF. Natural gas use is bounded by 2008 SWEIS; within site-wide limits.
Geology and Soils			
	Construction[11]: • NF: Excavate to 50-ft depth; 117,000 cu yds of material removed • Tunnels & Trenching: Excavate to 50-ft depth; 122,300 cu yds of material removed Operations: Not expected to impact geologic and soil resources. Facilities are sited to minimize risk from geologic hazards including earthquakes. Note: The potential to encounter contaminated soils is discussed below under "Potential Release Sites."	Construction: • NF: Excavate to 125-ft depth, between 375,000 and 500,000 cu yds of material removed • Tunnels & Trenching: Excavate to 50-ft depth; 113,500 cu yds of material removed This represents an increased depth of excavation (additional 75 ft) and increased material removed (additional 249,200 to 374,200 cu yds) compared to the CMRR EIS analysis. The excavated material (spoils) will be beneficially reused on other projects: Approximately 153,000 cu yds of the material will be reused as fill for other CMRR construction-related projects (such as for grading or fill to prepare laydown areas); the remaining amount will be staged at a LANL-wide materials staging area for future beneficial reuse on other LANL projects.	There will be some impacts to local geology as a result of the additional disturbance of subsoil during the NF construction. This additional disturbance is required for the NF construction to meet the seismic protection requirements (see discussion in Section 3). As stated in the CMRR EIS, the building must be constructed to minimize risks to workers, public, and environment from geologic hazards, including earthquakes. The planned and proposed activities meet this requirement. The magnitude and consequences of impacts related to the CMRR Project's total disturbance of subsoil are small in comparison to those bounded under the MDA remediation actions covered by the 2008 SWEIS ROD; that analysis considered the impacts associated with removal of up to 2.5 million cubic yards of crushed tuff and other material (DOE 2008a).

00831

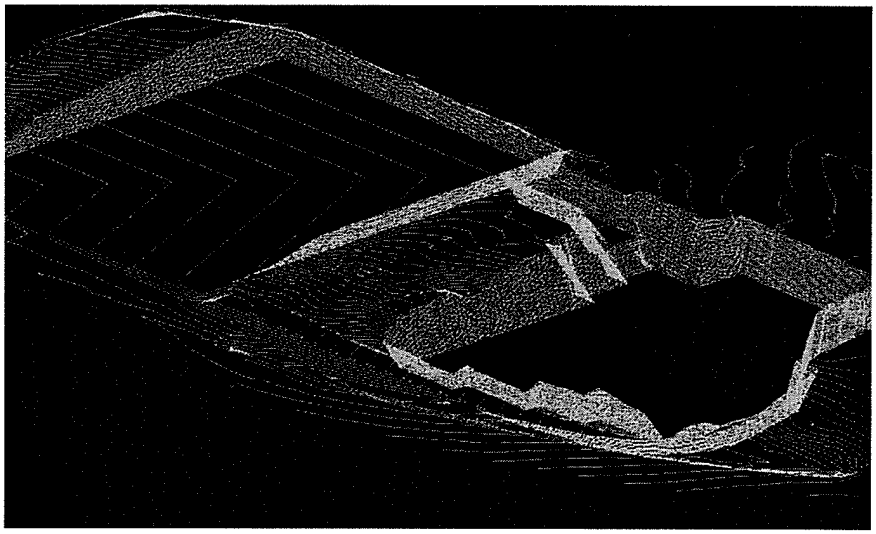
EXHIBIT 2

CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

CMRR Public Meeting, March 14, 2007

Volume 3

Los Alamos National Laboratory
Los Alamos, New Mexico



Los Alamos NATIONAL LABORATORY EST.1943

NNSA

LA-UR-07-3583

EXHIBIT 3

[ROSEMARY ROMERO]
For the excavated sites?

[SCOTT KOVAC]
Yes, for both of those excavated sites.

[ROSEMARY ROMERO]
You could probably go to that slide,

[CRAIG BACHMEIER]
It's approximately about 210 thousand yards, total, with, about 90 thousand yards coming out of the nuclear facility site and about 120 thousand coming out of the RLUOB site.

[SCOTT KOVAC]
And, could you describe the, um, testing that you did on that soil before you shipped [it] off? Did you find any contaminated soil in, in that area?

[CRAIG BACHMEIER]
No. It was evaluated by the functional specialist at the Laboratory, and there were no documented uses of that area and as a result, um, for example, it's not in the database for previously used areas and things like that.

[SCOTT KOVAC]
So it wasn't actually tested? You just went by that—

[CRAIG BACHMEIER]
We did not do any specific sampling of the soil.

[SCOTT KOVAC]
Nobody sampled the soil. Okay. Even though, like right next to it is MDA [Material Disposable Area] C. Right. Okay. Um, has the—

[JONI ARENDS]
And [TA-]55.

[SCOTT KOVAC]
Well, okay. The, ah, has the, ah, preliminary seismic hazard analysis been completed yet? The new one? That's due out soon? Has that been done yet?

[CRAIG BACHMEIER]
No. Um, there's been a lot of work completed on that, and it's nearing completion, but the way that information is released, it comes through our Laboratory engineering standards before it's actually implementable on projects, and that has not happened yet.

[TIM NELSON]
So— This is Tim Nelson here. You are talking about the institutional probabilistic seismic hazard analysis?

LANL Construction Corridor

Tom McKinney, Associate Director

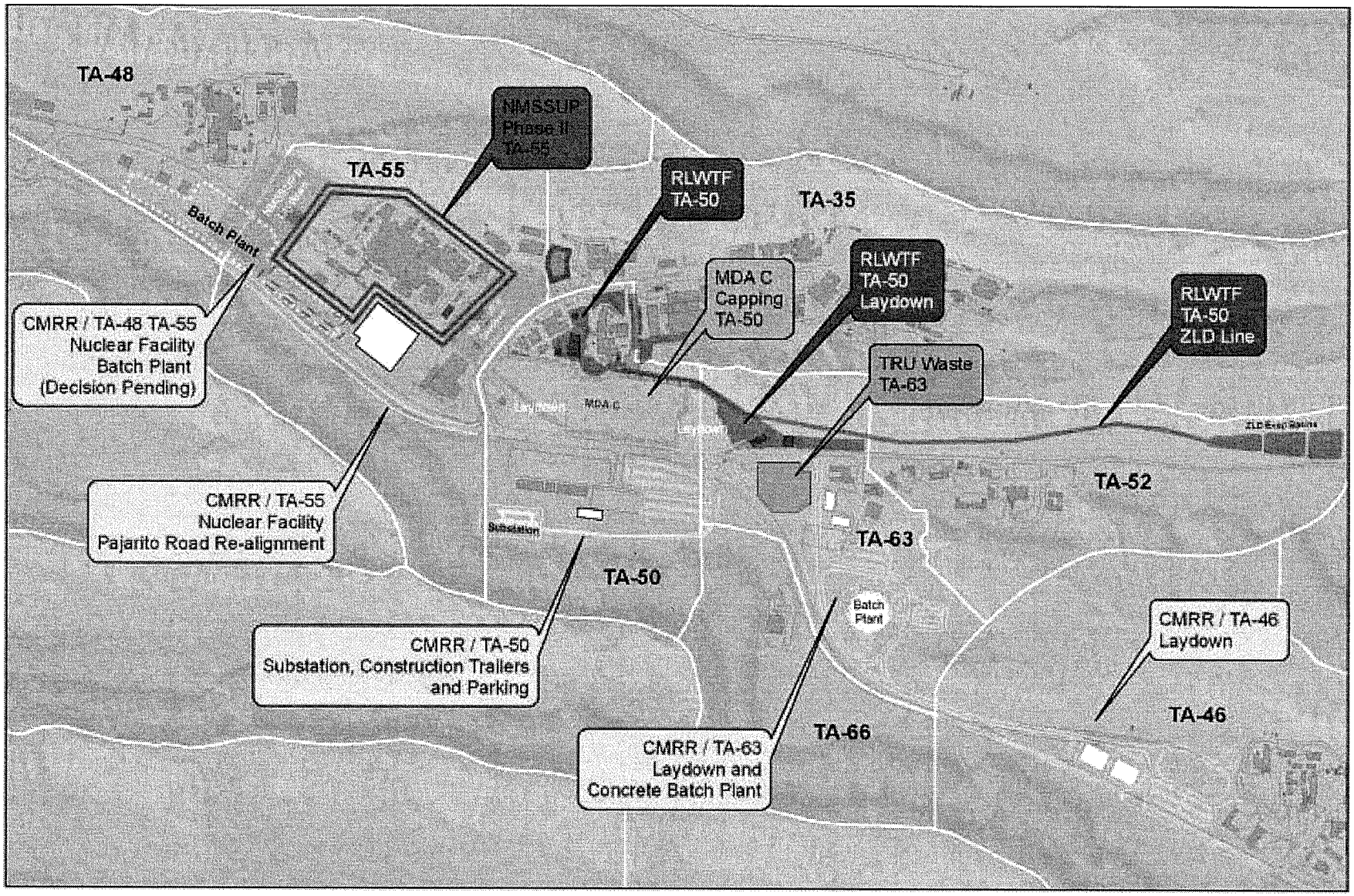
Project Management and Site Services Directorate

Los Alamos National Laboratory

September 8, 2010

LA-UR 10-05995

00834



Pajarito Corridor Project Planning / 2010 - 2020

Los Alamos NATIONAL LABORATORY

NNSA

August 12, 2010

N W E S

Slide 5

0 365 730 1,460 2,190 2,920 Feet

00835

04-D-125, Chemistry and Metallurgy Research Facility Replacement Project, Los Alamos National Laboratory Los Alamos, New Mexico

Significant Changes

- The construction line item funding profile has been modified to reflect the FY 2004 Appropriation that reduced funding by $10,500,000, as well as a reduction of $51,000,000 to what had been planned for FY 2005. The large reduction to the FY 2005 request was necessary to address other high priority NNSA requirements (e.g., implementation of the new Design Basis Threat). The reductions in FY 2004-05 impact the out-year funding profile and schedule for this project, and as a result the project will be re-evaluated and revised during FY 2004. The changes will be reflected in the FY 2006 request.

  Further, as part of the re-evaluation of this project, the National Nuclear Security Administration (NNSA) will conduct an analysis of the Total Estimated Cost/Total Project Cost (TEC/TPC), that are being developed as the planning phase continues. The analysis is required in order to validate early estimates that indicate that the TEC and TPC could be at the higher end of the pre-conceptual baseline range, which is higher than the estimate in Section 1. Updated estimates will be provided in the FY 2006 request.

  Finally, preliminary schedule data for the project has been revised to be consistent with continued project development; however, the overall project schedule will be adjusted, as necessary, as part of the NNSA re-evaluation of the project and any changes will be reflected in the FY 2006 request.

- The cost of project engineering and design (PE&D) for preliminary design for this project has increased by $10,000,000. A full (preliminary and final) Design-Build (D-B) approach for most project activities was the basis for the initial PE&D estimate. The reduction in line item funding in FY 2004-05 has required an alternative approach in order to minimize overall schedule delays. The revised approach will utilize separate preliminary designs, where possible, for all project activities and will rely on Los Alamos National Laboratory (LANL) to conduct more preliminary design work, rather than procuring these services under full D-B contracts. The PE&D funding request in FY 2005 will support continuation of preliminary design and engineering work for all project elements.

- FY 2004 line item construction funding will be used to implement the D-B acquisition of the Radiological Laboratory/Utility/Office Building (RLUOB) component of the Chemistry and Metallurgy Research Facility Replacement (CMRR). The FY 2005 request for construction funds will support continuation of the RLUOB and initiation of the D-B activities for Special Facility Equipment (SFE) - Gloveboxes. Initiation of the Security Category I, Hazard Category 2 Nuclear Facility is planned for FY 2006.

04-D-125, Chemistry and Metallurgy Research Building Replacement (CMRR) Project, Los Alamos National Laboratory (LANL), Los Alamos, New Mexico Project Data Sheet (PDS) is for Construction

1. Significant Changes

The most recent DOE O 413.3A approved Critical Decisions (CD) are CD-1 for the Nuclear Facility (NF), Special Facility Equipment (SFE), and Radiological Laboratory/Utility/Office Building (RLUOB) phases of the project, and CD-2/3A for the RLUOB phase of the project. The CMRR CD-1 was approved on June 17, 2005 with a preliminary cost range of $745,000,000 - $975,000,000, although costs could be greater. Subsequently, the CD-2/3A for the RLUOB was approved on December 5, 2005, with a Total Project Cost (TPC) of $164,000,000. The NF and SFE are continuing with final design, while the Radiological Laboratory/Utility/Office Building is being executed with a design build contract. The TPC of the RLUOB is part of the overall CMRR Project preliminary cost range.

Based on continued examination of the project and recent, industry-wide experience related to the increases in the cost of construction of comparable facilities, the estimate for construction of the Nuclear Facility at CMRR is now viewed to be significantly higher. Initial estimates place the revised TPC above $2,000,000,000. A final cost estimate will be established when the Nuclear Facilities performance baseline is established at CD-2, which is estimated to occur during FY 2010. Funding profile reflected in Section 5 for the inclusive period of FY 2010 to FY 2013 is a funding placeholder for the construction which will be needed for the plutonium facility. This decision will result from the NEPA and PEIS process the NNSA is presently conducting.

A Federal Project Director with certification level IV has been assigned to this project.

This PDS is an update of the FY 2008 PDS.

CMRR Project

CMRR Project: An Overview

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

A Radiological Laboratory Utility Office Building (RLUOB)

B Special facilities equipment, including long-lead equipment and instrumentation

C Nuclear Laboratory Facility

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

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

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

Phase A:

Radiological Laboratory Utility Office Building (RLUOB)

Phase B:

Special facilities equipment, including long-lead equipment and instrumentation

Phase C:

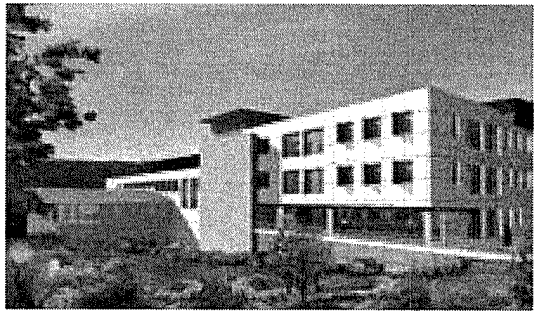
Nuclear Laboratory Facility

Phase A: Radiological Laboratory Utility Office Building

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

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

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



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

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

Phases B and C

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

CMRR Project

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Special facilities equipment, including long-lead equipment and instrumentation

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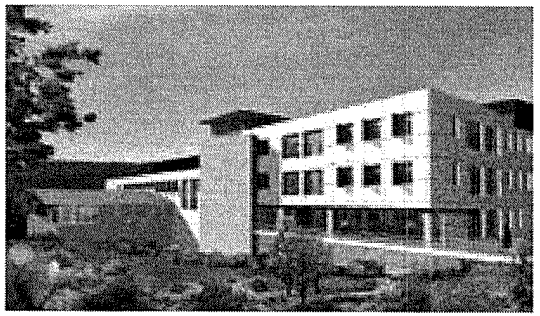

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NewsBulletin

Site Search Go

News (7/09 to present)
News Releases (7/09 to present)
News Releases archive (pre-7/09)

Laboratory breaks ground on new CMRR building

January 13, 2006

Sen. Pete Domenici, R-N.M., center, used an American flag to signal to a backhoe operator to begin breaking ground on Thursday for the Lab's new Radiological Laboratory Utility Office, phase one of the planned Chemistry and Metallurgy Research Replacement (CMRR) project at Technical Area 55. Also shown are left to right, Joel Leeman of the Principal Associate Director for Nuclear Weapons Program (PADNWP) Office, Tim Nelson of CMRR, Tom D'Agostino, deputy administrator for defense programs with the National Nuclear Security Administration, Laboratory Director Bob Kuckuck, Steve Penson of the Austin Corp., the general contractor for phase one and Don Cobb, acting deputy Laboratory director.

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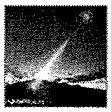

Milagro Telescope Zooms in on New Regions of Space

COMPUTING »

Library Researchers Make Searching More Predictable

Credit: Lisbeth V. Sanchez, Public Affairs

EXHIBIT 8

CHEMISTRY AND METALLURGY RESEARCH REPLACEMENT FACILITY PROJECT LOS ALAMOS NATIONAL LABORATORY

CERTIFICATION REVIEW

REPORT TO CONGRESSIONAL DEFENSE COMMITTEES

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

SEPTEMBER 2009

EXHIBIT 9

ADMIN. CONTINUES TO PRESS FOR LAME-DUCK 'NEW START' RATIFICATION

The Obama Administration and Sen. Jon Kyl (R-Ariz.) appear to be headed for a confrontation on the New Strategic Arms Reduction Treaty after the Thanksgiving holiday as Administration officials have ratcheted up efforts over the last week to gather votes for the arms control pact without the support of the GOP's leading voice on nuclear weapons issues. The apparent shift in strategy comes after the Administration outlined an updated pledge to spend more than $85 billion on the National Nuclear Security Administration's weapons program over the next decade, an increase of more than $5 billion from what the Administration said was needed earlier this year and $15 billion more than had been budgeted during the Bush Administration.

That offer, however, was not enough to convince Kyl to lend his support to the treaty during the post-election Senate session. Citing "complex and unresolved issues" related to the treaty and modernizing the nation's nuclear weapons complex, Kyl surprised the Administration by releasing a statement indicating he did not think the treaty should be voted on during the lame-duck session, causing the Administration to move quickly to outline its level of cooperation with the senator. During separate briefings with policy analysts and select reporters, the White House circulated a list of 30 interactions between Administration officials and Kyl or his staff over the last 15 months, including a Nov. 17 phone conversation between Kyl and Vice President Joe Biden.

The Administration also circulated pages of questions that had been answered for Kyl as it tried to illustrate a long-standing level of cooperation with the senator. At the same time, however, discussions between the Administration and Kyl continued last week, with Biden suggesting after his conversation with Kyl that there was still hope that the senator could support the treaty during the lame-duck session. "I think they were really surprised when he said there shouldn't be a vote now," former NNSA Administrator and original START Treaty negotiator Linton Brooks told *NW&M Monitor*. "It's pretty clear the Administration is making a strong push. If it doesn't work, it will have consequences."

Biden: 'There's Been No Delay Here'

In a briefing with reporters Nov. 19, Biden denied that the Administration had waited too long to deliver information to Kyl, thus jeopardizing a vote on the treaty in the lame-duck session. "That is not true, there's been no delay here," Biden said, according to a *Foreign Policy* magazine blog. "The reason we didn't push earlier is that the Republican leadership said to us, 'Look, Jon Kyl is the point guy.' Literally, [Senate Majority Leader Mitch] McConnell said Jon Kyl, which was kind of a kick in the teeth to [Senate Foreign Relations Committee ranking member] Dick [Lugar], but Jon Kyl, he's the guy, unless you get Jon . . . ."

Biden appeared to make the case that the Administration had gone above and beyond what was expected to answer Kyl's concerns, which included pushing for full funding of the Administration's $7.01 billion request for the NNSA's weapons program in the stopgap funding measure approved by Congress in late September, increasing its modernization pledge by updating its plan to upgrade the weapons complex and arsenal, and accelerating the FY2012 budgeting process by several months. "Jon did a really good job of asking for a whole lot of information and commitments," Biden said. "Jon then came back and asked for something that I don't ever recall has been done before, and that is ask us to go on the line now, which we have, on the Fiscal Year 2012 budget and make it clear what we were going to do, to the point where I've already got to the Appropriations Committee and said, 'This is what I expect.' "

Obama Continues Pressing for Ratification

In reductions to be made over the next seven years, the treaty would cap the size of the U.S. and Russian strategic deployed stockpiles at 1,550, down from the 1,700-2,200 range allowed by the Moscow Treaty, and would limit the number of deployed and reserve strategic delivery vehicles to 800 with a maximum of 700 missile launchers and

Nuclear Weapons & Materials Monitor is a weekly (50 issues a year) publication covering all the activities of the U.S. National Nuclear Security Administration, including the stockpile stewardship program, complex transformation and disposition of weapons grade materials. Also includes insight on programs with Russia and other nuclear states.

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ExchangeMonitor Publications' Editorial Staff

Martin Schneider, Editor-in-Chief		Tel.: 202-296-2814 ext. 105 schneider@exchangemonitor.com
Mike Nartker, Associate Editor	*WC Monitor*	Tel.: 202-296-2814 ext. 106 nartker@exchangemonitor.com
Todd Jacobson, Reporter	*NW&M Monitor*	Tel.: 202-296-2814 ext. 107 jacobson@exchangemonitor.com
Kenneth Fletcher, Reporter	*NNB Monitor*	Tel.: 202-296-2814 ext. 108 fletcher@exchangemonitor.com
Sarah Anderson, Reporter	*RadWaste Monitor*	Tel.: 202-296-2814 ext. 110 anderson@exchangemonitor.com

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EXHIBIT 10

bombers allowed to be deployed at one time. It would also reestablish verification and transparency measures that have been lacking since the START Treaty expired Dec. 5. The treaty will last 10 years.

Obama has continued to be outspoken in pushing for ratification of the treaty during the lame-duck session, mentioning it during his weekly radio address to the nation and again at the NATO Lisbon Summit Nov. 19. "This is a national security imperative for the United States," he said at the summit. "We need to ratify New START to put in place on-the-ground inspections of Russian nuclear arsenals, to reduce our deployed weapons and launchers, and to build on our cooperation with Russia—which has helped us put pressure on Iran and helped us to equip our mission in Afghanistan." The treaty also received support from foreign ministers at the meeting and NATO Secretary General Anders Fogh Rasmussen. "A delay of the ratification of the [New] START Treaty would be damaging to security in Europe," Rasmussen said. "I strongly encourage all parties involved to do their utmost to ensure an early ratification of the START treaty."

Administration Pushing On

Foreign Policy also quoted an unnamed Administration official that spoke at the Biden briefing who appeared to reinforce the idea that the Administration was pushing for a vote without Kyl's support, mirroring statements made previously by Obama and White House spokesman Robert Gibbs. "There's a number that we need to get to get this passed. The question is, if Senator Kyl decides he is not able to support it now, whether a number of other Republicans would come on board and support the treaty," the official was quoted as saying. "We believe that at the end of the day we will have made that so clear, the broader argument on the merits of treaty... can carry the day with enough Republican senators to get this passed."

Skirting Kyl, however, has proved to be a difficult task, according to policy analysts and Congressional aides. There have been few signs that even moderate Republicans like George Voinovich (R-Ohio), Olympia Snowe (R-Maine), Susan Collins (R-Maine) and Robert Bennett (R-Utah) have moved toward supporting the treaty. Sen. Bob Corker (R-Tenn.), who voted for the treaty when the Senate Foreign Relations Committee passed the resolution of ratification in September, has questioned whether there is time to vote for the treaty during the lame-duck session. "There is literally no reason on policy grounds to vote against the treaty for anybody. The question is all politics," said Stephen Young, a nuclear weapons expert with the Union of Concerned Scientists, "and the problem I think for Corker or Snowe is they fear if they vote for the treaty they'll face a challenge from the Tea Party in two years. ... It's not hopeless, but it's no easy sell."

Brooks suggested that if the Administration fails in its push for ratification, there could be dire consequences, both for Obama internationally and for the modernization funding planned for NNSA's weapons program. "The more the President pushes for this, the more he will look impotent internationally if he can't pull it off," Brooks said. "This is a fairly high risk strategy." On the weapons program funding, Brooks said there is a risk that the NNSA funding could still face pressure from Congressional Democrats if the treaty isn't ratified. "A lot of us would like to see this happen, because first of all, as you know, I think START is the right thing to do for the country, but I also think that START is a mechanism for some important improvements in the nuclear security enterprise and it would be a shame to come this close and lose it." Brooks added: "It's a little bit like playing chicken. Chicken works, but it depends on somebody being willing to pull their car aside at the last minute. We'll just have to see."

Bond Speaks Out Against Treaty

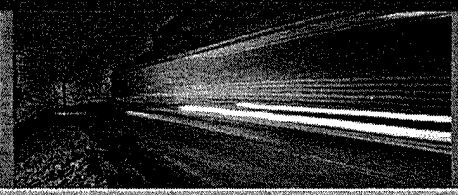
The few signs coming out of the Senate have been against the treaty. In a speech on the Senate floor before the chamber adjourned for the Thanksgiving break, retiring Sen. Christopher "Kit" Bond (R-Mo.) outlined his opposition to a treaty he called "overhyped" and "oversold." Bond, who is the ranking member of the Senate Intelligence Committee, argued in his Nov. 18 speech that the treaty does not give the United States the ability to adequately verify the proposed reductions in the treaty. "I have reviewed the key intelligence on our ability to monitor this treaty and heard from our intelligence professionals," Bond said. "There is no doubt in my mind that the United States cannot reliably verify the treaty's 1,550 limit on deployed warheads."

—Todd Jacobson

UNCERTAINTY WITH NEW TECHNOLOGIES DRIVING UPF COST INCREASES, GAO SAYS

As funding for modernization of the nuclear weapons complex continues to dominate debate over the New Strategic Arms Reduction Treaty with Russia, a new Government Accountability Office report is shedding new light on the technical challenges that are driving multi-billion-dollar cost increases at a project that is at the center of the modernization effort—the planned Uranium Processing Facility at Y-12. The report, *National Nuclear Security Administration's Plans for Its Uranium Processing Facility Should Better Reflect Funding Estimates and*

Overview of CMRR
Chemistry and Metallurgy Research Facility Replacement Project

December 2, 2010

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EXHIBIT 11

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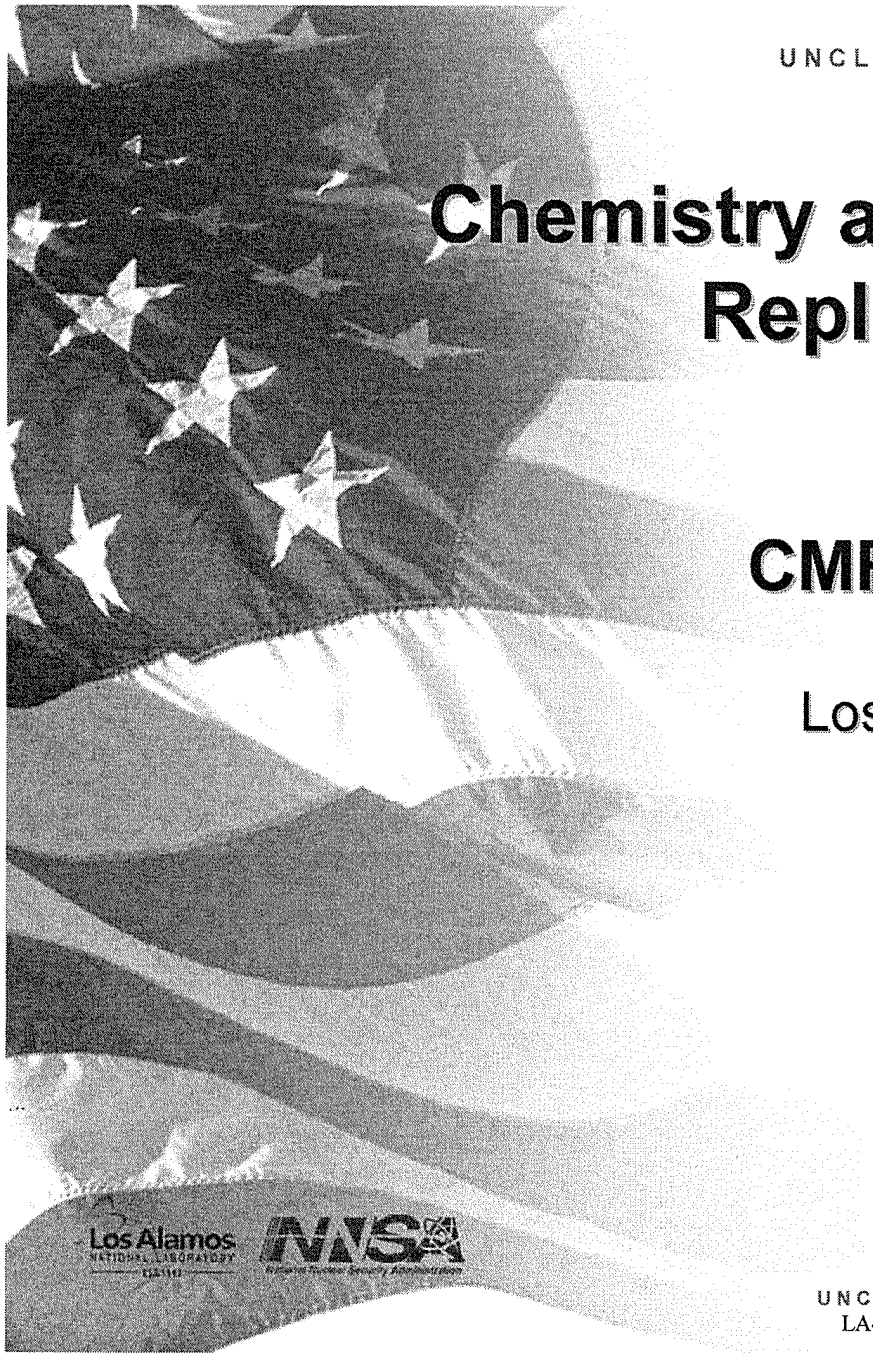


Chemistry and Metallurgy Research Replacement (CMRR) Project

CMRR Project Update

Los Alamos, New Mexico
June 10, 2010

Rick Holmes, *LANL*
CMRR Division Leader

CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

EXHIBIT 12

Project Overview

- Budget Authority – $97M for FY10
- President's Request – $225M for FY11
- NNSA Headquarters Program Direction
  - Complete RLUOB within approved performance baseline – **Complete**
  - Complete REI according to performance baseline – **Ongoing/Ahead of schedule**
  - Plan for CMRR NF completion by 2020 with operations in 2022
- NF Final Design
  - Technical Safety Strategy ready for Definitive Design
    - **NNSA and DNFSB validation of nuclear safety approach**
  - Executive and Congressional support
  - Nuclear Posture Review – Published

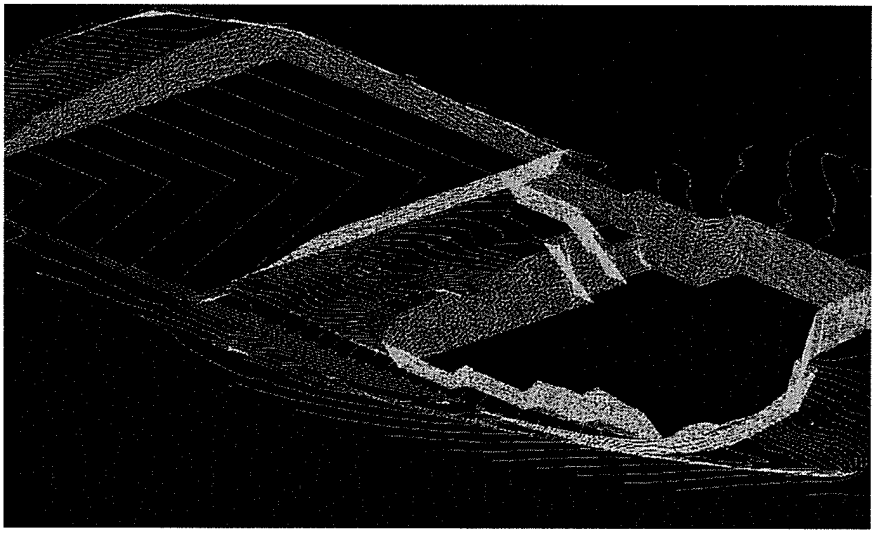
00846

CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

CMRR Public Meeting, March 14, 2007

Volume 3

Los Alamos National Laboratory
Los Alamos, New Mexico



Los Alamos NATIONAL LABORATORY EST. 1943

NNSA

LA-UR-07-3583

EXHIBIT 13

getting a lot of mileage out of the dirt that's coming out of this facility. In addition, the institution is making some traffic safety modifications to Parajito Road and eventually is planning to upgrade the electrical reliability of this area with a new substation. Our project has taken a power line that's—ran across the site and we relocated that. So you might've some of that activity if you've been in that area. It's now below ground, and provides us with more access to the site, and improves the electrical safety in the area.

[Slide 14]
[CRAIG BACHMEIER]
Next, this slide is a topographic image, that, a perspective that shows the excavations that I've been talking about. If you are not familiar with these types of drawings, these lines indicate the degree of slope on the land. So an area that has lots of lines is very steep and areas that have wide spacing are actually relatively flat. And so again, these are very steep walls, about 75% in terms of grade. Ahm, around three sides of that. And the contractor's started to move equipment into this area. And at the same time we are also using this area to do some additional geotechnical mapping of these walls that provides structural information for our foundation designs. Um, this area is going to stay. This is—

[UNIDENTIFIED PERSON]
[Brief inaudible comment]

[CRAIG BACHMEIER]
And this excavation is where the new facility is going to be. Hopefully this map parallels the previous one I showed. Um, the nuclear facility, when it's done, well, this is now roughly at the grade of the highway. When it's finished, um, that will be as much as another 30 feet below grade in terms of total depth of excavation. Comparable to the RLUOB site, which is actually gonna be about 25 feet deeper than the road is. And, um, I guess the other feature that's visible in this drawing is this excavation that's connecting the two sites. And that represents a tunnel that will allow personnel to go in between the two buildings. And it'll be controlled by an entrance control facility within the RLUOB.

[CRAIG BACHMEIER]
Um, but again, this what I get to spend most of my day on right now.

[Slide 15]
[CRAIG BACHMEIER]
This is our project schedule. Um, in the previous meeting we, uh, Tim [Nelson], spent time going over the schedule for the overall CMRR project. This is a blowup of the schedule just for Phase A. Um, again, we went through our Critical Decision process, and I'll start with CD-2, -3 which happened in late October of '05. We followed that with our contract award to Austin Commercial. Again, we went into QA [quality assurance] for about three months developing a QA program. Went into design. We've been in design now for something like 12 months. We're finishing up that design at this time. And we have started basic construction activities at this point, which is just clearing the site and getting things ready for the primary activities. As I said, concrete work is scheduled to start in the April time frame. And you'd see significant structural steel work taking place by late summer. And overall the construction phase is scheduled to complete in January of 2009. And that'll be followed by a readiness assessment phase, um, where we go through and demonstrate that the facility

Pajarito Construction Activities

John Bretzke, Deputy Associate Director

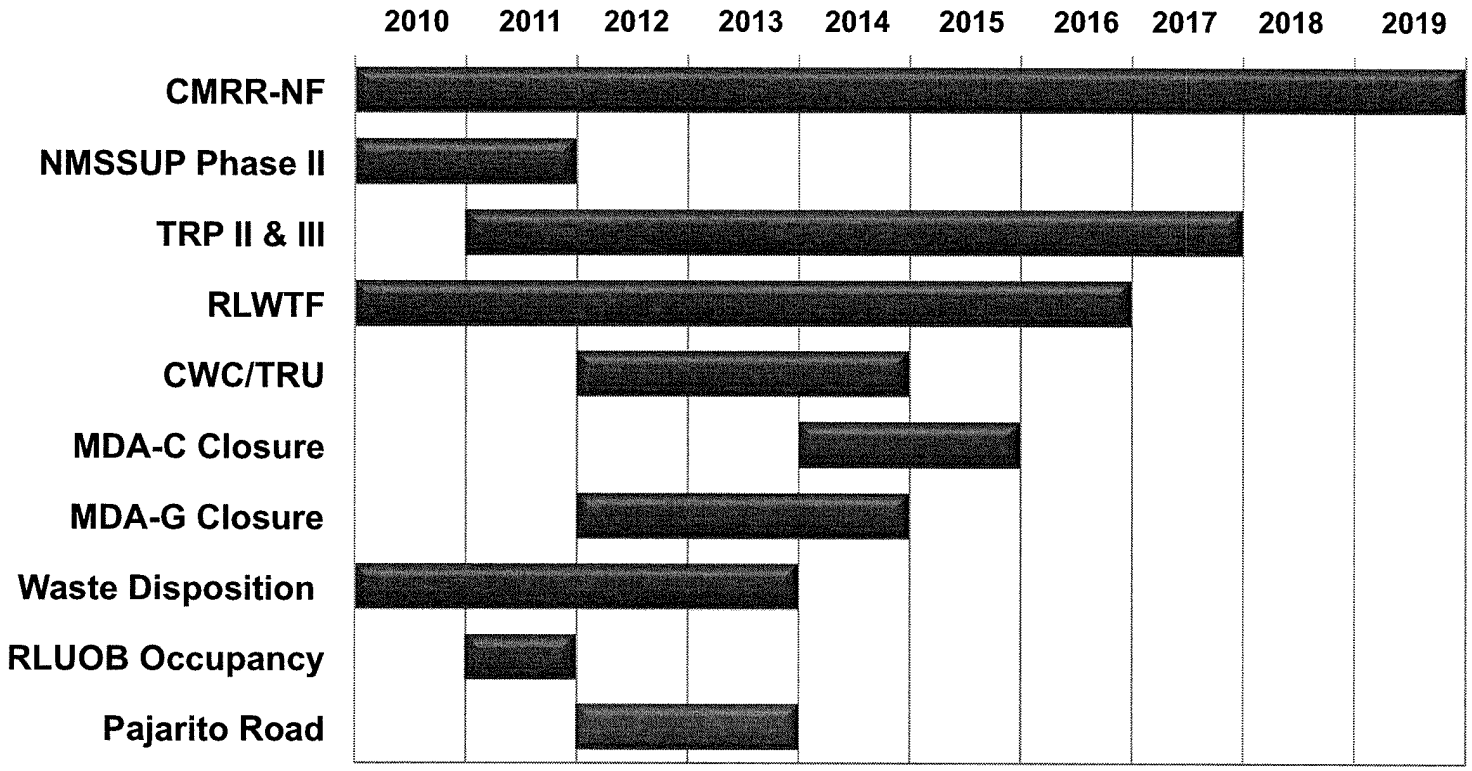
Project Management & Site Services, LANL

June 16, 2010

LA-UR-10-04023

00849

Major Projects Near Concurrent Activities



00850

LANL Construction Corridor

Tom McKinney, Associate Director

Project Management & Site Services, LANL

June 16, 2010

LA-UR 10-04021

00851

Major Projects-Near Concurrent Activities

- Chemistry & Metallurgy Research Replacement (CMRR)
- Nuclear Materials Safeguards and Security Upgrade Project (NMSSUP) Phase II
- TA-55 Revitalization Project (TRP) Phase II & III
- Radioactive Liquid Waste Treatment Facility (RLWTF)
- TRU Waste Facility (TRU)
- Material Disposal Area-C Closure
- Material Disposal Area-G Closure
- Waste Disposition Project
- RLUOB Occupancy

00852

LANL Construction Corridor

Tom McKinney, Associate Director

Project Management and Site Services Directorate

Los Alamos National Laboratory

September 8, 2010

LA-UR 10-05995

00853

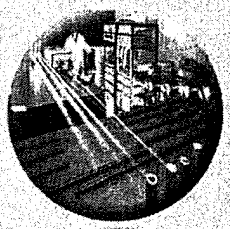
Major Projects - Near Concurrent Activities

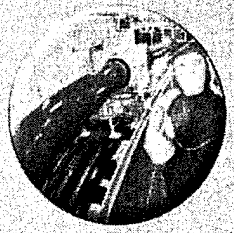
1. **Chemistry & Metallurgy Research Replacement (CMRR)**
   - Radioactive Laboratory/Utility/Office Building (RLUOB) Occupancy
   - RLUOB Equipment Installation (REI)
   - Nuclear Facility (NF)
2. **Nuclear Materials Safeguards and Security Upgrade Project (NMSSUP) Phase II**
3. **Transuranic Waste Facility (TRU)**
4. **TA-55 Revitalization Project (TRP) Phase II & III**
5. **Radioactive Liquid Waste Treatment Facility (RLWTF)**
6. **Material Disposal Area - C Closure**
7. **Material Disposal Area - G Closure**
8. **Waste Disposition Project**

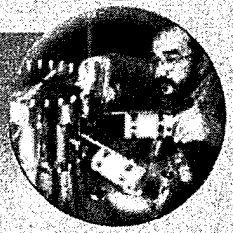
00854

Annex D

FY 2011 Biennial Plan and Budget Assessment on the Modernization and Refurbishment of the Nuclear Security Complex







May 2010

National Nuclear Security Administration
United States Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

U.S. DEPARTMENT OF ENERGY

NNSA National Nuclear Security Administration

EXHIBIT 15

technology, and dynamic material experiments. Pit manufacturing is the most rate-limiting constraint on modifications that can be made to the stockpile nuclear explosives package in the event that the pit requires modification. Plutonium processing for nuclear weapons includes all of the processing steps to convert a raw material into a finished product. No opportunity exists for out-sourcing this work or leveraging capacity from the American industrial base. All plutonium capabilities are maintained by a core team of trained and qualified plutonium handling personnel. The present plutonium technology base is adequate to satisfy today's requirements for plutonium programs. The capabilities are regularly exercised and qualified to manufacture a legacy pit type in small annual quantities.

Key Facilities

Plutonium facilities represent a key physical resource for supporting the nuclear weapon stockpile. Due to the hazards associated with plutonium these facilities are very complex, expensive, and difficult to acquire. The typical planning basis for acquiring a new plutonium facility is more than 15 years and several billion dollars. Therefore, close coordination between program planning and facility planning is necessary to ensure alignment between program requirements and the facility design. The major plutonium facilities are located at Los Alamos. The Superblock at Livermore is being transitioned to a Security Category III research and development facility. A system diagram (Figure D–7) shows the major Los Alamos facilities involving plutonium in 2009 and the interfaces to other key facilities associated with plutonium.

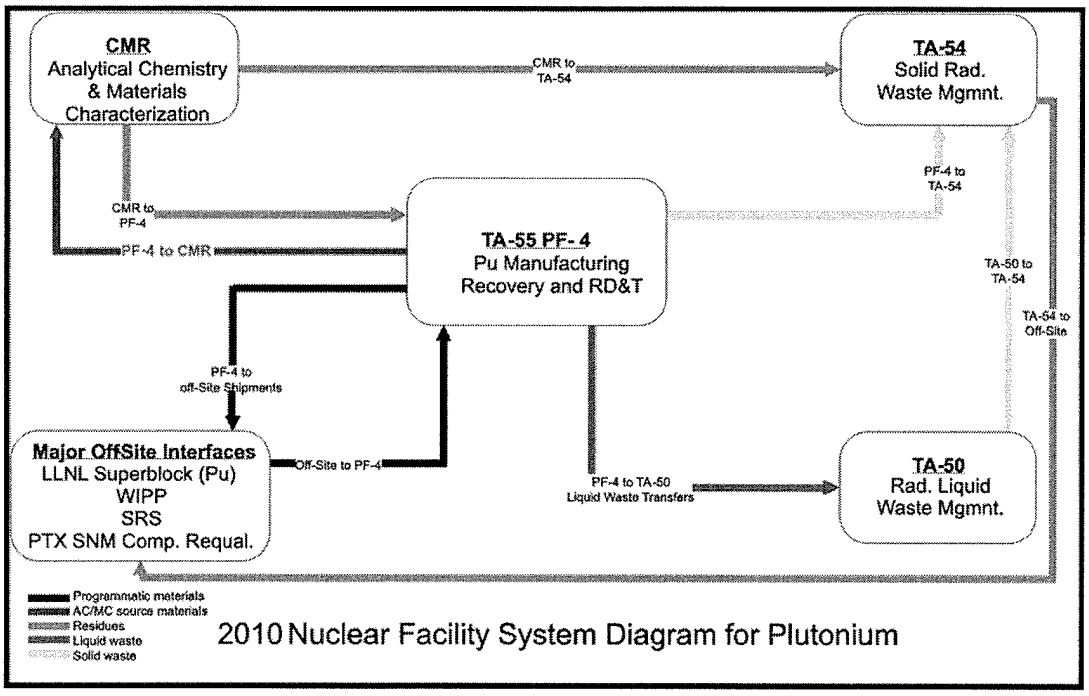


Figure D–7. Key LANL Plutonium Facilities in 2010.

The system diagram changes with time as new facilities replace older facilities, including CMRR-NF replacing CMR, Radioactive Liquid Waste Treatment Facility that will improve treatment capability at TA-50, and the TRU Project replacing TA-54. The overall system

requires reliable service from each of the component facilities shown to support plutonium requirements as presented in Table D-6.

Table D-6.Key Facilities For Plutonium.

Key Facilities For Plutonium	
Facility Name	**Facility Function**
LANL—Plutonium processing facility (PF-4)	Plutonium Processing.
LANL—CMR	Analytical Chemistry and Materials Characterization.
LANL—Radioactive Liquid Waste Treatment	Waste Treatment and Processing.
LANL—Solid Radioactive Waste Management	Solid Waste Receipt and Staging.
LANL—Main Shops and Beryllium Technology Facility	Support facilities—Non-nuclear pit parts including beryllium.
LLNL—Superblock Plutonium Facility	Security Cat I/II Plutonium R&D until 2012. In the process of transitioning to security Cat III status by 2012.
PTX—SNM Component Requalification Facility	Pit Refurbishment.

Future State

In the near- and long-term, the facilities used to execute plutonium missions are refurbished and/or replaced to maintain a posture for the desired spectrum of weapons life extension options.

Planned Actions

Having a plutonium processing capability is essential to the NNSA mission. It takes years to bring a nuclear facility from a planned alternative to full operations capacity. The short-term action is to support plutonium analytical chemistry and material characterization with replacement of the CMR facility with the CMRR-NF project. There are well documented safety issues with the old CMR facility. This includes work to:

- Develop and execute a program to align existing plutonium capabilities to address the forecasted plutonium capacity requirements and to periodically re-invest in existing capabilities. This capability re-investment is important to ensure responsiveness because the current capability runs the risk of single point failure. Process equipment, for example, typically takes between 3 to 8 years to acquire and deploy inside an operating plutonium facility. The FY 2011 investments in deployed equipment in PF-4 are realized in the 2014-2019 time period.

- Fund and execute line item projects for plutonium-related facility upgrades and replacements for plutonium facilities.

The series of actions required to transition the plutonium infrastructure to support the long-, mid- and short-term duration are critical activities. In the short—midterm, NNSA has defined plans to ensure that the plutonium technical capability is maintained and sufficient to support the base capability and future projected capacities.

LOS ALAMOS STUDY GROUP
Mission and Method

Mission and Method

The Los Alamos Study Group seeks **nuclear disarmament, environmental protection and enhancement, social justice, and economic sustainability** – goals which are closely interrelated, mutually reinforcing, and essential to one another. These goals are very widely supported in American society and we construe them as essentially conservative, however revolutionary they would be in actual practice.

We aim not only to change public policy but also to prevent the implementation of bad policies. The latter is often easier to achieve; it comprises *de facto* policy change and often leads to *de jure* change.

The central ideal in these four goals can be stated approximately as ***respect for the human person in the living landscape.*** Such an ideal is as intellectually, morally, economically, and politically incompatible with nuclear weapons as it is necessary for economic, social, and spiritual renewal in this state and nationally.

Everything we do to achieve both our external and our internal goals falls into one of three program categories:

- **Research, writing, and publication:** activities primarily involving research, writing, publication, public speaking, and the education of news media, federal decisionmakers and legislators;
- **Organizing and outreach:** activities primarily involving building and evoking strong public commitment in New Mexico, the U.S., and the world to nuclear disarmament and related goals; and
- **Sustaining the organization:** activities primarily devoted to institutional development, maintenance, accountability, and sustainability.

In practice, all three kinds of programs work together, like the frame of a bicycle with its two wheels.

EXHIBIT 16

^ back to top

2901 Summit Place NE Albuquerque, NM 87106, Phone: 505-265-1200, Fax: 505-265-1207

DOE F 1325.8
(8-89)

United States Government **Department of Energy**

memorandum

DATE: June 17, 2003
REPLY TO
ATTN OF: Office of NEPA Policy and Compliance (B. Mills, 202-586-8267)

SUBJECT: Guidance Regarding Actions That May Proceed During the National Environmental Policy Act (NEPA) Process: Interim Actions

TO: Secretarial Officers
Heads of Field Organizations

The Department of Energy (DOE) frequently needs to decide whether an action that is within the scope of an ongoing environmental impact statement (EIS) may proceed before a record of decision (ROD) is issued. An action within the scope of an EIS that is taken before a ROD is commonly referred to as an "interim action." DOE may propose to take the action before a ROD to reduce risk or mitigate adverse impacts to human health and the environment or reduce program costs. Indeed, interim actions to respond to an immediate need are often permissible and should be pursued, as appropriate. This issue arises most frequently with respect to actions that fall within the scope of a programmatic or site-wide EIS.

In preparing the attached guidance, we consulted with the Office of General Counsel, and we considered suggestions made by NEPA Compliance Officers. We prepared this guidance to help respond to the concern that compliance with NEPA could become the reason for near-term hazards to go unmitigated, as expressed in the February 2002 Environmental Management Top-To-Bottom Review. The guidance is based on criteria established by the Council on Environmental Quality in its regulations implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508), DOE's NEPA implementing regulations (10 CFR Part 1021), which rely on those criteria, and DOE Order 451.1B, *National Environmental Policy Act Compliance Program.* Examples of the types of actions that may proceed as interim actions and a flow diagram summarizing key aspects of the guidance are provided.

If you have any questions regarding this guidance or its application to particular proposed actions, please direct them to Carol Borgstrom, Director, Office of NEPA Policy and Compliance (EH-42), at 202-586-4600.

Beverly A Cook

Beverly A. Cook
Assistant Secretary
Environment, Safety and Health

Attachment
cc: William Dennison, GC-51
NEPA Compliance Officers

EXHIBIT 17

Guidance Regarding Actions That May Proceed During the National Environmental Policy Act (NEPA) Process: Interim Actions

The Department of Energy (DOE) frequently needs to decide whether an action that is within the scope of an ongoing environmental impact statement (EIS) may proceed before a record of decision (ROD) is issued. An action within the scope of an EIS that is taken before a ROD is commonly referred to as an "interim action." DOE may propose to take an action before a ROD to reduce risk or mitigate adverse impacts to human health and the environment or to reduce program costs. Indeed, interim actions to respond to an immediate need are often permissible and should be pursued, as appropriate. This issue arises most frequently with respect to actions that fall within the scope of a programmatic or site-wide EIS.

The following guidance is based on criteria established by the Council on Environmental Quality (CEQ) in its regulations implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508; 40 CFR 1506.1 attached as Exhibit 1), DOE's NEPA implementing regulations (10 CFR 1021.104 and 1021.211, attached as Exhibit 2, which define interim action and incorporate the CEQ criteria), and DOE Order 451.1B, *National Environmental Policy Act Compliance Program*. This guidance does not create any additional requirements beyond those in these sources.

To provide assistance in determining whether an action within the scope of an EIS may be taken before a ROD, the guidance reviews applicable requirements, gives examples of the types of actions that may proceed as interim actions, describes case studies, and outlines the steps in the EIS process for interim actions.

Requirements for project-specific and programmatic EISs are distinguished where appropriate. In brief, for a project-specific EIS, an interim action must be one that would not adversely affect the environment nor limit the choice of reasonable alternatives. For a programmatic EIS, an EIS must be prepared for a proposed interim action that has potential for significant environmental effects, and the interim action must be one that would neither affect nor be affected by the proposed program. In general, an action of relatively limited scope or scale that would have only local utility normally could be taken as an interim action before a ROD.

CEQ Criteria for Interim Actions

CEQ's criteria for interim actions (at 40 CFR 1506.1) are best understood in the context of the purpose of an EIS. As stated in the CEQ regulations, the primary purpose of an EIS is to serve as an action-forcing device to ensure that the policies and goals defined in NEPA are infused into an agency's

EXHIB

ongoing programs and actions (40 CFR 1502.1). An EIS is more than a disclosure document; it is to be used by decision makers in conjunction with other relevant information to plan actions and make decisions.

At 40 CFR 1502.2, the CEQ regulations state that:

> "(f) Agencies shall not commit resources prejudicing selection of alternatives before making a final decision ([Section] 1506.1).
>
> (g) Environmental impact statements shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made" (emphasis added).

CEQ established separate criteria for project-specific EISs in Section 1506.1(a) and for required programmatic EISs in Section 1506.1(c), as discussed below.[1] Both sets of criteria address, in part, the need to avoid improper segmentation, in particular with regard to connected actions, e.g., actions that are interdependent parts of a larger action and depend on the larger action for justification (in 40 CFR 1508.25(a)).

Application of CEQ Criteria to DOE Actions Covered by Project-specific EISs

[1] In addition, Section 1506.1(b) states an agency's responsibility to ensure that non-Federal applicants meet the objectives of 40 CFR 1506.1(a), and Section 1506.1(d) allows limited activities (e.g., plans, designs) specifically in support of Federal, State or local permit applications.

CEQ also discusses the Section 1506.1 criteria in two items in Forty Most Asked Questions Concerning CEQ's NEPA Regulations (51 FR 15618; April 25, 1986). In item 10a, CEQ reiterates the criteria in 1506.1(a) and (c). In item 11a, CEQ provides examples of actions an agency could take under 40 CFR 1506.1(b) to ensure that the objectives and procedures of NEPA are met when an applicant proposes to take an invalid interim action within the agency's jurisdiction; the agency's actions could range from negotiation to non-approval of the permit application.

Under Section 1506.1(a), until an agency issues a ROD[2], no action concerning the proposal can be taken that would:

(1) Have an adverse environmental impact; or

(2) Limit the choice of reasonable alternatives.

Many types of actions could be interim actions to a project-specific EIS. In general, project managers may proceed with conceptual design (under DOE O 413.3, *Program and Project Management for the Acquisition of Capital Assets*) and feasibility studies in support of a project because these activities meet both criteria of Section 1506.1(a). Site characterization activities to support a meaningful analysis of the environmental impacts of the proposed project also generally may be undertaken. Small scale corrective actions under the Resource Conservation and Recovery Act or installing fences to enhance security represent other classes of actions that usually may proceed under the criteria of Section 1506.1(a).

Although the activities discussed in the paragraph above would take place while a more extensive action (e.g., a waste management or nuclear materials action) is being evaluated in its associated ElS, the activities normally are unlikely to involve adverse environmental impacts or limit the choice of reasonable alternatives for the final action. An action that is not within the scope of the EIS, such as ongoing site operations, would not be constrained by the criteria for an interim action and could proceed.

In the context of this guidance "adverse environmental impact" means a negative environmental impact at such a level that an element of the human environment is impaired or damaged. Judgment of whether the level of negative impact is high enough to impair or damage depends on the situation and the resource. For some resources, adverse impact is defined in the statute protecting the resource or in implementing regulations.

---

[2]The CEQ regulations address criteria for interim actions during the preparation of an EIS only. A project or program for which an environmental assessment (EA) is prepared is normally smaller in scope than a project or program for which an EIS is prepared, and the EA process is shorter in duration than the EIS process. Thus the question of interim actions is less likely to arise during EA preparation. However, EAs, like EISs, are intended to inform decisions and therefore, normally should be completed before an action is taken. In those exceptional cases where part of a proposed action needs to proceed while the EA is being prepared, DOE managers should be mindful of the principles enunciated by the Section 1506.1(a) criteria, i.e., that the activity does not have an adverse environmental impact nor does it limit the choice of reasonable alternatives. Early and continued consideration of the Section 1506.1 criteria should lead to better project and program planning and decisions, regardless of whether an EA or an EIS is being prepared.

- For example, under the implementing regulations for the National Historic Preservation Act, "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association." [36 CFR 800.5(a)(1)]

- Under the implementing regulations for the Endangered Species Act, an adverse impact would be a "take" (of an endangered or threatened species or a species proposed for listing as endangered or threatened), which means "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect." [50 CFR 10.12] With regard to critical habitat, the implementing regulations define destruction or adverse modification to mean "a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species." [50 CFR 402.02]

NEPA documentation is not normally needed for permissible interim actions under project-specific EISs. See Exhibit 3 for a diagram of steps in the NEPA process for interim actions for project-specific EISs. Valid interim actions associated with project-specific EISs should be minor in scope (as discussed above), not require analysis to show that the criteria are met, and be similar in nature to categorical exclusions. That a proposed interim action is similar in nature to a categorical exclusion does not in itself indicate that it is a valid interim action. As with the application of categorical exclusions or many other project or programmatic decisions, a record of interim action determination is recommended.

Proceeding with detailed design under DOE O 413.3, *Program and Project Management for the Acquisition of Capital Assets*, before the NEPA review process is completed (in contrast to conceptual design noted above) is normally not appropriate because the choice of alternatives might be limited by premature commitment of resources to the proposed project and by the resulting schedule advantage relative to reasonable alternatives. For example, detailed design for containers that could only be transported via rail may prejudice consideration of truck or barge transport as alternatives. Concern about limiting the choice of reasonable alternatives is the basis for the DOE policy, expressed in the DOE NEPA regulations at 10 CFR 1021.210(b), that NEPA review normally should be completed before deciding to start detailed design.[3]

[3] Note, too, that DOE O 413.3 similarly provides for NEPA documentation to be completed before critical decision-2 (detailed design). Conceptual design and detailed design are defined under this DOE Order.

Application of CEQ Criteria to DOE Actions Covered by Programmatic EISs

Section 1506.1(c) states "While work on a required program environmental impact statement is in progress and the action is not covered by an existing program statement, agencies shall not undertake in the interim any major Federal action covered by the program which may significantly affect the quality of the human environment unless such action:

(1) Is justified independently of the program;

(2) Is itself accompanied by an adequate environmental impact statement[4]; and

(3) Will not prejudice the ultimate decision on the program. Interim action prejudices the ultimate decision on the program when it tends to determine subsequent development or limit alternatives."

In applying the first criterion ("independent justification"), DOE needs to determine that the proposed interim action could be undertaken irrespective of whether or how the program goes forward.

- In most cases in which DOE is obligated by law to carry out the proposed interim action (e.g., usually cases involving compliance with environmental requirements), DOE would be able to demonstrate independent justification by showing that no reasonably foreseeable decision based on the programmatic EIS would affect the proposed interim action.

- In cases that involve an existing facility that is within the scope of a programmatic EIS in preparation, DOE would need to establish, for example, that a proposed interim action involving a change in the facility (structure or operation) is needed to allow the facility to fulfill its existing mission before decisions can be made and implemented on the basis of the programmatic EIS. If so, a near-term modification would be permissible because it would be necessary for the ongoing program, regardless of how decisions based on the programmatic EIS may affect the future of the facility or the ongoing program.

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[4]Section1506.1(c) speaks in terms of interim actions that require an EIS ("major Federal actions"), and thus the criteria of that section do not specifically apply to interim actions to which a categorical exclusion has been applied or for which an environmental assessment and finding of no significant impact have been issued. However, proceeding with these kinds of interim actions when they do not meet the first and third criteria of section 1506.1(c) could present a risk that DOE could be found to be impermissibly segmenting the programmatic action. Therefore, it is recommended that DOE managers consider these criteria and determine that the interim action is independently justified and will not prejudice the ultimate decision on the program before proceeding with the action.

The second criterion indicates that an EIS must be prepared for a proposed interim action that has potential for significant environmental impact.

In applying the third criterion ("non-prejudicial to programmatic decision"), DOE needs to determine whether a proposed interim action would tend to determine subsequent programmatic development or limit programmatic alternatives, as these types of actions could not be taken until a ROD were issued.

- In general, interim actions of relatively limited scope or scale that have only local utility are unlikely to prejudice programmatic development or decisions. A number of related interim actions, however, when considered collectively could unduly influence programmatic decision-making. For example, proceeding with a number of decentralized waste treatment projects could prejudice the choice of programmatic options involving centralized treatment.

- In the case of a site-wide EIS[5], ongoing site operations are not considered interim actions and may continue. Ongoing site operations are considered under No Action.

See Exhibit 3 for a diagram of steps in the NEPA review process for interim actions for programmatic EISs.

Case Studies of the NEPA Process for Interim Actions to Programmatic EISs

A proposed interim action satisfies criteria (1) and (3) in Section 1506.1(c) when the action neither is affected by nor affects the program. An example of such an interim action was the proposed disposal of a limited quantity of mixed-waste from DOE and other Federal facilities at the Nevada Test Site (NTS) while mixed-waste disposal approaches were being considered system-wide in DOE's *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (DOE/EIS-0200, May 1997). The interim action was proposed to provide for short-term waste disposal needs and was judged appropriate because its scope was constrained by limiting the volume of waste to be disposed of and the period over which disposal would occur. No decision based on the Waste Management Programmatic EIS was foreseen to be in conflict with the interim decision for waste disposal at NTS. Likewise, because the interim action would not require a large capital expenditure, the interim action would not limit subsequent development at NTS or alternative sites, nor would it limit the choice of programmatic alternatives considered. Criterion (2) in Section 1506.1(c) was met by a site-wide EIS for NTS (*Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations*

[5] DOE considers site-wide NEPA reviews to be programmatic in nature (although site-wide EISs are not necessarily "required programmatic EISs" within the meaning of Section 1506.1(c)).

in the State of Nevada, DOE/EIS-0243, August 1996) that adequately analyzed past, present, and reasonably foreseeable future mixed-waste disposal activities at the site.

As another example, in April 1996, a U.S. District Court ruled that DOE could proceed with a new major nuclear defense program facility, the Dual Axis Radiographic Hydrodynamic Test facility, at the Los Alamos National Laboratory as an interim action (based on a ROD for the project-specific EIS, *Final Environmental Impact Statement (EIS), Dual Axis Radiographic Hydrodynamic Test Facility*, DOE/EIS-0228, May 1995) while two programmatic EISs were being prepared (*Final Programmatic Environmental Impact Statement for Stockpile Stewardship and Management*, DOE/EIS-0236, September 1996; *Site-Wide Environmental Impact Statement for Continued Operation of the Los Alamos National Laboratory*, DOE/EIS-0238, January 1999). In considering the criteria for valid interim actions, the Court found that DOE had adequately demonstrated that the new facility would be useful notwithstanding the range of alternatives considered in the two programmatic EISs.

Interim Action Determination

The preceding guidance describes the key considerations necessary to determine whether an action that is within the scope of an ongoing NEPA review may proceed as an interim action. Under DOE's NEPA Order, 451.1B, Section 5.a.(12), Secretarial Officers and Heads of Field Organizations have the responsibility to determine whether an interim action is clearly allowable under DOE's NEPA regulations and should factor these considerations into a project's planning process. When it is not clear whether an interim action can proceed, a Secretarial Officer or Head of Field Organization is to provide the Assistant Secretary for Environment, Safety and Health (EH-1) with a recommendation for a determination, and EH-1 will decide, in consultation with the manager, whether the interim action may be taken. The exception to this is that the Administrator, National Nuclear Security Administration (NNSA), makes all determinations concerning NNSA interim actions, consulting with EH-1, as appropriate (DOE O 451.1B, Sections 3 and 6).

EXHIBIT 1

Council on Environmental Quality Regulations
Implementing the Procedural Provisions of NEPA
40 CFR 1506.1

1506.1 Limitations on actions during NEPA process.

(a) Until an agency issues a record of decision as provided in 40 CFR 1505.2 (except as provided in paragraph (c) of this section), no action concerning the proposal shall be taken which would:

(1) Have an adverse environmental impact; or
(2) Limit the choice of reasonable alternatives.

(b) If an agency is considering an application from a non-federal entity and is aware that the applicant is about to take an action within the agency's jurisdiction that would meet either of the criteria in paragraph (a) of this section, then the agency shall promptly notify the applicant that the agency will take appropriate action to insure that the objectives and procedures of NEPA are achieved.

(c) While work on a required program environmental impact statement is in progress and the action is not covered by an existing program statement, agencies shall not undertake in the interim any major Federal action covered by the program which may significantly affect the quality of the human environment unless such action:

(1) Is justified independently of the program;
(2) Is itself accompanied by an adequate environmental impact statement; and
(3) Will not prejudice the ultimate decision on the program. Interim action prejudices the ultimate decision on the program when it tends to determine subsequent development or limit alternatives.

(d) This section does not preclude development by applicants of plans or designs or performance of other work necessary to support an application for Federal, State or local permits or assistance. Nothing in this section shall preclude Rural Electrification Administration approval of minimal expenditures not affecting the environment
(e.g., long leadtime equipment and purchase options) made by non-governmental entities seeking loan guarantees from the Administration.

EXHIBIT 2

Department of Energy
National Environmental Policy Act Implementing Provisions
10 CFR 1021

Sec. 1021.104 Definitions.

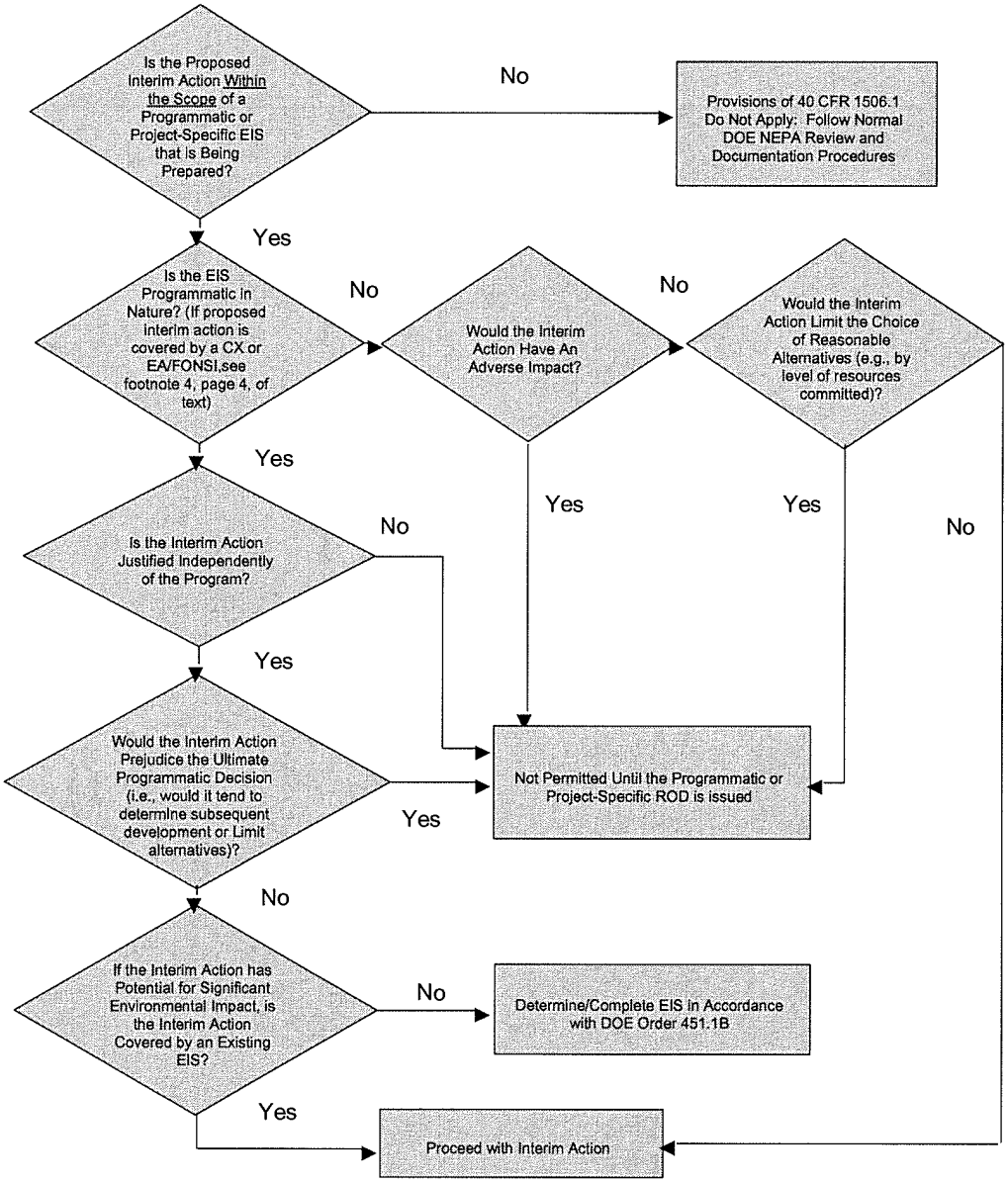
Interim action means an action concerning a proposal that is the subject of an ongoing EIS and that DOE proposes to take before the ROD is issued, and that is permissible under 40 CFR 1506.1: Limitations on actions during the NEPA process.

Sec. 1021.211 Interim actions: Limitations on actions during the NEPA process.

While DOE is preparing an EIS that is required under Sec.1021.300(a) of this part, DOE shall take no action concerning the proposal that is the subject of the EIS before issuing an ROD, except as provided at 40 CFR 1506.1. Actions that are covered by, or are a part of, a DOE proposal for which an EIS is being prepared shall not be categorically excluded under subpart D of these regulations unless they qualify as interim actions under 40 CFR 1506.1.

Exhibit 3

Steps to Follow for Determining Whether Actions May Proceed During the NEPA Process: Interim Actions



America's Strategic Posture

The Final Report of the Congressional Commission on the Strategic Posture of the United States

Authorized Edition

William J. Perry, Chairman

James R. Schlesinger, Vice-Chairman

Harry Cartland
John Foster
John Glenn
Morton Halperin
Lee Hamilton
Fred Ikle
Keith Payne
Bruce Tarter
Ellen Williams
James Woolsey

NNSA sites are all one of a kind. Accordingly, any consolidation would require reconstituting existing capability in some new place and this would add cost, not reduce it. The specific recommendation has been made by some to close either Los Alamos or Livermore and fold needed capabilities into the remaining facility. The Commission rejects this suggestion, and not just for the reason that it would be prohibitively expensive. The preservation of two laboratories provides competitive peer review in the one area—the physics package—that cannot be tested as a matter of national policy and where theoretical understanding remains incomplete.

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The Commission considered a variety of studies from recent years about how to update the complex. It is apparent that, for various reasons, none of these has achieved sustained political support.

In December 2008, the NNSA issued its own plan for complex transformation. More specifically, it issued a formal record of decision adopting plans to modify the weapons complex according to a "preferred alternative" which has been subject to extensive review and public comment. This plan would maintain all of the existing sites but would consolidate certain functions, especially at the weapons laboratories, to avoid duplication. Both Los Alamos and Livermore would retain nuclear design and engineering responsibilities in order to provide for competitive peer review. The production complex would be modernized in place, with significant consolidation within sites, especially at the Y-12 facility in Tennessee. Two major replacement facilities would be built. One at Los Alamos would replace a plutonium research and diagnostics facility that is already well past the end of its planned life; this new facility would be called the Chemistry and Metallurgy Research Replacement (CMRR). The other would replace the Uranium Processing Facility (UPF) at Y-12. The current facility was constructed as part of the Manhattan Project in World War II and the many problems and high cost of keeping it running are a testimonial to the failure over the years to make needed investments in the production complex.

The NNSA's plan has merit and should be seriously considered by the Congress. The Congress should not, however, expect that implementation of the complex transformation plan will result in major cost savings. This is unrealistic. Indeed, there may be no significant costs savings. The NNSA proposes to pay for modernization in part with management improvements. But efficiencies may not materialize. Indeed, most projected savings are relatively small in dollar terms. It hopes also to generate increasing income from external customers. But this too will not solve the problem. Moreover, the

costs of transformation will almost certainly rise. The history of nuclear facility construction shows major cost growth. These are sometimes aggravated by Congressional funding decisions that create unpredictability.

In the past, rising facility costs have been borne by taking funds from other activities of the laboratories, usually from the scientific base. As argued further below, this has had a very deleterious impact on the labs and the practice should cease.

The two planned replacement facilities will be very expensive at well over $1 billion each. Given the NNSA's historical problems in cost and schedule management of nuclear facility construction, any current cost estimates should be considered extremely uncertain. Even at currently estimated costs, these two projects would be among the largest construction projects attempted by the nuclear weapons program in the past 25 years.

This raises an obvious question about whether these two replacement programs might proceed in sequence rather than concurrently. There are strong arguments for moving forward concurrently. Existing facilities are genuinely decrepit and are maintained in a safe and secure manner only at high cost. Moreover, the improved production capabilities they promise are integral to the program of refurbishment and modernization described in the preceding chapter. If funding can be found for both, this would best serve the national interest in maintaining a safe, secure, and reliable stockpile of weapons in the most effective and efficient manner.

But if funding cannot be found, what choice should be made? Four factors should be considered:

- There are safety issues with both existing facilities, primarily due to their age. The safety concerns at the Los Alamos plutonium facility are at least as serious as those at the Y-12 uranium facility. But a short-term loss of plutonium capabilities may hurt the weapon program more than a short-term loss of enriched uranium capabilities.
- The Los Alamos plutonium facility makes a direct contribution to maintaining intellectual infrastructure that is in immediate danger of attrition (as argued further below). It assures that there is a complete long-term capability for Los Alamos and Livermore to conduct plutonium research.
- Because the future size of the stockpile is uncertain, projects that are relatively independent of stockpile size should take priority. The uranium production facility's size is influenced by stockpile size (the greater the stockpile size, the larger the needed production capacity). The Los Alamos plutonium facility is required independent of stockpile size.
- The Los Alamos facility has the more mature design.

These considerations lead the commission to the conclusion that, if priority must be given, the Los Alamos plutonium facility should receive it. A delay in construction of the Y-12 uranium processing facility may also allow some redesign to tailor the plan to new arms control agreements and their implications for long-term stockpile requirements. The time might also be used to find ways to minimize the facility's size and cost, and to learn more about secondary reuse.

A critical question in the overall plan is how much capacity should be in place to produce new weapons pits. The original pit-production facility at Rocky Flats was closed more than a decade ago. A capability to produce pits has been reestablished at Los Alamos in the TA-55/PF-4 facility. The facility has demonstrated that it can produce certifiable pits and the NNSA plans that it will be the permanent pit production facility with production of 20 pits per year and surge capabilities up to 50 and 80 pits per year. Given the new understanding of pit lifetimes, these rates ought to be sufficient to support the present stockpile or a reduced stockpile if arms control produces such a result.

The Commission notes also a chronic unwillingness of the Congress to support the programs needed to maintain test readiness. This is an essential safeguard of the no-test policy and should be supported. The Commission has also received evidence that some allies interpret the apparent lack of test readiness as a symptom of reduced U.S. commitment to extended deterrence. The Commission supports the principle of maintaining readiness to resume underground nuclear testing and recommends that the program be funded to maintain the 24-month timeline.

The Intellectual Infrastructure

The Commission's second main concern about the nuclear weapons complex is that the intellectual infrastructure there is in serious trouble—perhaps more so than the physical complex itself. It strongly recommends that significant steps be taken to remedy the situation.

The Commission's second main concern about the nuclear weapons complex is that the intellectual infrastructure there is in serious trouble....

It is important to understand the weapons laboratories are more than a complex of facilities and instruments. The foundation of their work in support of the national deterrent is a unique scientific and engineering capability. Although nuclear weapons have existed for over sixty years, weapons science was largely an empirical science for much of that period. Nuclear weapons are exceptionally complex, involving temperatures as high as the sun and times measured in nanoseconds. Understanding these weapons from first principles requires a broad, diverse and deep set of scientific skills, along with complex experimental tools and some

the nuclear deterrent. As the United States reduces the numbers of nuclear weapons, the reliability of the remaining weapons in the stockpile – and the quality of the facilities needed to sustain it – become more important.

Human capital is also a concern. The national security laboratories have found it increasingly difficult to attract and retain the most promising scientists and engineers of the next generation. The Administration's commitment to a clear, long-term plan for managing the stockpile, as well as to preventing proliferation and nuclear terrorism will enhance recruitment and retention of the scientists and engineers of tomorrow, by providing the opportunity to engage in challenging and meaningful research and development activities.

The NPR concluded:

- The science, technology and engineering base, vital for stockpile stewardship as well as providing insights for non-proliferation, must be strengthened.
- Increased investments in the nuclear weapons complex of facilities and personnel are required to ensure the long-term safety, security, and effectiveness of our nuclear arsenal. New facilities will be sized to support the requirements of the stockpile stewardship and management plan being developed by the National Nuclear Security Administration.
- Increased funding is needed for the Chemistry and Metallurgy Research Replacement Project at Los Alamos National Laboratory to replace the existing 50-year old facility, and to develop a new Uranium Processing Facility at the Y-12 Plant in Oak Ridge, Tennessee.

Looking Ahead: Toward a World without Nuclear Weapons

Pursuing the recommendations of the 2010 Nuclear Posture Review will strengthen the security of the United States and its allies and partners and bring us significant steps closer to the President's vision of a world without nuclear weapons.

The conditions that would ultimately permit the United States and others to give up their nuclear weapons without risking greater international instability and insecurity are very demanding. Among those conditions are success in halting the proliferation of nuclear weapons, much greater transparency into the programs and capabilities of key countries of concern, verification methods and technologies capable of detecting violations of disarmament obligations, enforcement measures strong and credible enough to deter such violations, and ultimately the resolution of regional disputes that can motivate rival states to acquire and maintain nuclear weapons. Clearly, such conditions do not exist today.

But we can – and must – work actively to create those conditions. We can take the practical steps identified in the 2010 NPR that will not only move us toward the ultimate goal of eliminating all nuclear weapons worldwide but will, in their own right, reinvigorate the global nuclear non-

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seeking greater stockpile reductions than otherwise possible. Further, a corps of highly skilled personnel will continue to expand our ability to understand the technical challenges associated with verifying ever deeper arms control reductions.

Through science and engineering programs that improve the analysis of the reliability of our warheads, we also enhance our ability to assess and render safe potential terrorist nuclear devices and support other national security initiatives, such as nuclear forensics and attribution. Expert nuclear scientists and engineers help improve our understanding of foreign nuclear weapons activities, which is critical for managing risks on the path to zero. And, in a world with complete nuclear disarmament, a robust intellectual and physical capability would provide the ultimate insurance against nuclear break-out by an aggressor.

Additionally, the industrial base activities that support the nuclear enterprise also remain critical to the nation's deterrence posture. Increased surveillance of critical commercial sector human skills, manufacturing capabilities, and sustainment capabilities is required to ensure this infrastructure remains viable to support the enterprise.

The NPR concluded that the following key investments were required to sustain a safe, secure, and effective nuclear arsenal:

- Strengthening the science, technology, and engineering (ST&E) base needed for conducting weapon system LEPs, maturing advanced technologies to increase weapons surety, qualification of weapon components and certifying weapons without nuclear testing, and providing annual stockpile assessments through weapons surveillance. This includes developing and sustaining high quality scientific staff and supporting computational and experimental capabilities. The NNSA will develop a long-term strategy that will describe the ST&E base required to meet the Stockpile Stewardship Program. The report will be delivered to the Nuclear Weapons Council in 2011.

- Funding the Chemistry and Metallurgy Research Replacement Project at Los Alamos National Laboratory to replace the existing 50-year old Chemistry and Metallurgy Research facility in 2021.

- Developing a new Uranium Processing Facility at the Y-12 Plant in Oak Ridge, Tennessee to come on line for production operations in 2021. Without an ability to produce uranium components, any plan to sustain the stockpile, as well as support for our Navy nuclear propulsion, will come to a halt. This would have a significant impact, not just on the weapons program, but in dealing with nuclear dangers of many kinds.

More broadly, the Administration supports the needed recapitalization of the nuclear infrastructure through fully funding the NNSA. New production facilities will be sized to support the requirements of the Stockpile Stewardship Program mandated by Congress and to

DOE/EIS-236-S2

U.S. Department of Energy

Draft Supplemental Programmatic Environmental Impact Statement on Stockpile Stewardship and Management for a Modern Pit Facility

Summary

May 2003

U.S. Department of Energy
National Nuclear Security Administration

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Pit capacity requirements must also account for the need for additional pits, e.g., logistics spares and surveillance units. As a result of this requirement, the number of pits that must be available to support a specific weapon system will exceed the number of deployed strategic weapons and vary by pit type.

Contingency production requirements are also an important driver for the need for a MPF. Contingency production, which is the ability to produce a substantial quantity of pits on short notice, is distinct from the capacity needed to replace pits destroyed for surveillance or other reasons (such as for production quality assurance or other experiments). The capacity of a MPF needs to support both scheduled stockpile pit replacement at EOL and any "unexpected" short-term production. Such short-term "contingency" production may be required for reliability replacement (replacement of pits to address, for example, a design, production, or unexpected aging flaw identified in surveillance), or for stockpile augmentation (such as the production of new weapons, if required by national security needs).

In all cases, and in all combinations with other capacity drivers, the interim production capacity being established at LANL will be inadequate to maintain these projected stockpiles. The required production capacity is a function of pit lifetime, stockpile size, and start date of full-scale production. To account for these variables, this MPF EIS evaluates a pit production capacity between 125-450 ppy for full-scale production beginning in approximately 2020.

S.2.1.4 Agility as a Driver

A critical element of production readiness is the agility (the ability to change rapidly from the production of one pit type to another, or to simultaneously produce different pit types) of the production line. Pits in the current enduring stockpile were produced over a relatively short period of time and can therefore be expected to reach their respective EOLs at about the same time, as well. Thus, any strategy to replace the enduring stockpile pits before they reach their EOL must address both the production rate for a particular pit type (the capacity driver discussed in Section S.2.1.1), and the ability to produce all necessary pit types in a relatively short period of time. For this reason, agility is an essential requirement for a MPF.

Contingency production also requires agility. If contingency production is ever needed, the response time will likely be driven by either a reliability problem that requires prompt response, or another type of emergency that must be addressed quickly. Thus, changeover from production of one pit type to another will have to be demonstrated for both replacements of pits at EOL (a process that will allow for planning and scheduled activities in advance of the need date), as well as for startup of contingency production with little notice (and therefore little planning time).

S.2.2 Purposes to be Achieved by a Modern Pit Facility

If constructed and operated, a MPF would address a critical national security issue by providing sufficient capability to maintain, long-term, the nuclear deterrent that is a cornerstone of U.S. national security policy. A MPF would provide the necessary pit production capacity and agility that cannot be met by pit production capabilities at LANL.

DEPARTMENT OF ENERGY

Bonneville Power Administration

Availability of the Bonneville Purchasing Instructions (BPI) and Bonneville Financial Assistance Instructions (BFAI)

AGENCY: Bonneville Power Administration (BPA), DOE.

ACTION: Notice of document availability.

SUMMARY: Copies of the Bonneville Purchasing Instructions (BPI), which contain the policy and establish the procedures that BPA uses in the solicitation, award, and administration of its purchases of goods and services, including construction, are available in printed form for $30, or without charge at the following Internet address: *http://www.bpa.gov/corporate/business/bpi*. Copies of the Bonneville Financial Assistance Instructions (BFAI), which contain the policy and establish the procedures that BPA uses in the solicitation, award, and administration of financial assistance instruments (principally grants and cooperative agreements), are available in printed form for $15 each, or available without charge at the following Internet address: *http://www.bpa.gov/corporate/business/bfai*.

ADDRESSES: Unbound copies of the BPI or BFAI may be obtained by sending a check for the proper amount to the Head of the Contracting Activity, Routing DGP–7, Bonneville Power Administration, P.O. Box 3621, Portland, Oregon 97208–3621.

FOR FURTHER INFORMATION CONTACT: Manager, Communications,1–800–622–4519.

SUPPLEMENTARY INFORMATION: BPA was established in 1937 as a Federal Power Marketing Agency in the Pacific Northwest. BPA operations are financed from power revenues rather than annual appropriations. BPA's purchasing operations are conducted under 16 U.S.C. 832 *et seq.* and related statutes. Pursuant to these special authorities, the BPI is promulgated as a statement of purchasing policy and as a body of interpretative regulations governing the conduct of BPA purchasing activities. It is significantly different from the Federal Acquisition Regulation, and reflects BPA's private sector approach to purchasing the goods and services that it requires. BPA's financial assistance operations are conducted under 16 U.S.C. 839 *et seq.* and 16 U.S.C. 839 *et seq.* The BFAI express BPA's financial assistance policy. The BFAI also comprise BPA's rules governing implementation of the principles provided in the following Federal Regulations and/or OMB circulars:

2 CFR Part 220 Cost Principles for Educational Institutions (Circular A–21);
2 CFR Part 225 Cost Principles for State, Local and Indian Tribal Governments (Circular A–87);
Grants and Cooperative Agreements with State and Local Governments (Circular A–102);
Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals and Other Non-Profit Organizations (Circular A–110);
2 CFR Part 230 Cost Principles for Non-Profit Organizations (Circular A–122); and
Audits of States, Local Governments and Non-Profit Organizations (Circular A–133)

BPA's solicitations and contracts include notice of applicability and availability of the BPI and the BFAI, as appropriate, for the information of offerors on particular purchases or financial assistance transactions.

Issued in Portland, Oregon, on September 17, 2010.

Damian J. Kelly,

Manager, Purchasing/Property Governance.

[FR Doc. 2010–24672 Filed 9–30–10; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

National Nuclear Security Administration

Notice of Intent To Prepare a Supplemental Environmental Impact Statement for the Nuclear Facility Portion of the Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory, Los Alamos, NM

AGENCY: U.S. Department of Energy (DOE), National Nuclear Security Administration (NNSA).

ACTION: Notice of intent.

SUMMARY: The Council on Environmental Quality's implementing regulations for the National Environmental Policy Act (NEPA) (40 CFR 1502.9[c][1] and [2]) and DOE's NEPA implementing regulations (10 CFR 1021.314) require the preparation of a supplement to an environmental impact statement (EIS) when there are substantial changes to a proposal or when there are significant new circumstances or information relevant to environmental concerns. DOE may also prepare a supplemental EIS at any time to further the purposes of NEPA. Pursuant to these provisions, the NNSA, a semi-autonomous agency within the DOE, intends to prepare a supplemental environmental impact statement (SEIS) to assess the potential environmental impacts of the construction and operation of the nuclear facility portion of the Chemistry and Metallurgy Research Building Replacement Project (CMRR–NF) at Los Alamos National Laboratory (LANL), Los Alamos, New Mexico.

The CMRR Project, including the CMRR–NF, was the subject of NNSA's *Final Environmental Impact Statement for the Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory, Los Alamos, New Mexico* (DOE/EIS–0350; the CMRR EIS) issued in November 2003, and a February 2004 Record of Decision (ROD) (69 FR 6967). Over time, due in large part to detailed site geotechnical investigations, some aspects of the CMRR–NF Project have changed from what was foreseen when the CMRR EIS was prepared. The potential environmental impacts of these proposed changes will be analyzed in the CMRR–NF SEIS.

DATES: NNSA invites stakeholders and members of the public to submit comments and suggestions on the scope of the SEIS during the SEIS scoping period, which starts with the publication of this Notice and will continue for 30 days until November 1, 2010. NNSA will consider all comments received or postmarked by that date in defining the scope of this SEIS. Comments received or postmarked after that date will be considered to the extent practicable. Two public scoping meetings will be held to provide the public with an opportunity to present comments, ask questions, and discuss concerns regarding the SEIS with NNSA officials. Public scoping meetings will be held on October 19, 2010, at the White Rock Town Hall, 139 Longview Drive, White Rock, New Mexico and October 20, 2010, at the Cities of Gold Casino Hotel, Pojoaque, New Mexico. Both meetings will begin at 4 p.m. and end at 7 p.m. The NNSA will publish additional notices regarding the scoping meetings in local newspapers in advance of the scheduled meetings. Any necessary changes will be announced in the local media.

Any agency, state, pueblo, tribe, or unit of local government that desires to be designated a cooperating agency should contact Mr. John Tegtmeier at the address listed below by the closing date of the scoping period.

ADDRESSES: Written comments or suggestions concerning the scope of the CMRR–NF SEIS or requests for more information on the SEIS and public scoping process should be directed to: Mr. John Tegtmeier, CMRR–NF SEIS Document Manager, U.S. Department of Energy, National Nuclear Security Administration, Los Alamos Site Office, 3747 West Jemez Road, TA–3 Building 1410, Los Alamos, New Mexico, 87544; facsimile at 505–667–5948; or e-mail at: *NEPALASO@doeal.gov*. Mr. Tegtmeier may also be reached by telephone at 505–665–0113.

In addition to providing comments at the public scoping meetings, all interested parties are invited to record their comments, ask questions concerning the EIS, or request to be placed on the EIS mailing or document distribution list by leaving a message on the SEIS Hotline at (toll free) 1–877–427–9439. The Hotline will provide instructions on how to record comments and requests.

FOR FURTHER INFORMATION CONTACT: For general information on the NNSA NEPA process, please contact: Ms. Mary Martin (NA–56), NNSA NEPA Compliance Officer, U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585, or telephone 202–586–9438. For general information about the DOE NEPA process, please contact: Ms. Carol Borgstrom, Director, Office of NEPA Policy and Compliance (GC–54), U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585, telephone 202–586–4600, or leave a message at 1–800–472–2756. Additional information about the DOE NEPA process, an electronic archive of DOE NEPA documents, including those referenced in this announcement, and other NEPA resources are provided at *http://nepa.energy.gov*.

SUPPLEMENTARY INFORMATION: LANL is located in north-central New Mexico, 60 miles north-northeast of Albuquerque, 25 miles northwest of Santa Fe, and 20 miles southwest of Española in Los Alamos and Santa Fe Counties. It is located between the Jemez Mountains to the west and the Sangre de Cristo Mountains and Rio Grande to the east. LANL occupies an area of about 25,600 acres [10,360 hectares] or approximately 40 square miles and is operated for NNSA by a contractor, Los Alamos National Security, LLC. It is a multidisciplinary, multipurpose institution engaged in theoretical and experimental research and development. LANL has been assigned science, research and development, and production mission support activities that are critical to the accomplishment of the NNSA's national security objectives as reflected in the Stockpile Stewardship and Management Programmatic EIS (DOE/EIS–0236) and the Complex Transformation Supplemental Programmatic EIS (DOE/EIS–0236–S4). LANL's main role in NNSA mission objectives includes a wide range of scientific and technological capabilities that support nuclear materials handling, processing and fabrication; stockpile management; materials and manufacturing technologies; nonproliferation programs; research and development support for national defense and homeland security programs; and DOE waste management activities.

The capabilities needed to execute the NNSA mission activities require facilities at LANL that can be used to handle actinides and other radioactive materials in a safe and secure manner. (The actinides are any of a series of 14 chemical elements with atomic numbers ranging from 89 (actinium) through 103 (lawrencium)). Of primary importance are the facilities located within the Chemistry and Metallurgy Research (CMR) Building and the Plutonium Facility (located at Technical Areas (TAs) 3 and 55, respectively), which are used for processing, characterizing, and storage of special nuclear material. (Special nuclear material is defined by the Atomic Energy Act of 1954 as plutonium, uranium-233, or uranium enriched in the isotopes uranium-233 or uranium-235). Most of the LANL mission support functions previously listed require analytical chemistry, material characterization, and actinide research and development support capabilities that currently exist within the CMR Building and are not available elsewhere. Other unique capabilities are located at the adjacent Plutonium Facility. Work is sometimes moved between the CMR Building and the Plutonium Facility to make use of the full suite of capabilities that these two facilities provide. CMR Building operations and capabilities are currently restricted in scope due to safety and security constraints; it cannot be operated to the full extent needed to meet NNSA operational requirements.

The CMR building contains about 550,000 square feet (about 51,100 square meters) of floor space on two floors divided between a main corridor and seven wings. It was constructed in the early 1950s. DOE maintained and upgraded the building over time to provide for continued safe operations. However, beginning in 1997 and 1998, a series of operational, safety, and seismic issues surfaced regarding the long-term viability of the CMR Building. In January 1999, the NNSA approved a strategy for managing operational risks at the CMR Building. The strategy included implementing operational restrictions to ensure safe operations. These restrictions are impacting the assigned mission activities conducted at the CMR Building. This strategy also committed NNSA to develop plans to relocate the CMR capabilities elsewhere at LANL to maintain support of national security and other NNSA missions. The CMRR EIS was prepared and issued in 2003, followed by a ROD in 2004.

The CMRR EIS analyzed four action alternatives: (1) The construction and operation of a new CMRR facility at TA–55; (2) the construction of a new CMRR facility at a "greenfield" location within TA–6; (3) a "hybrid" alternative maintaining administrative offices and support functions at the existing CMR building with a new Hazard Category 2 laboratory facility built at TA–55; and, (4) a "hybrid" alternative with the laboratory facility being constructed at TA–6. The CMRR EIS also analyzed a no action alternative where the existing CMR building would continue to be kept in service. In the 2004 ROD, NNSA announced its decision to implement the preferred alternative (alternative 1): To construct a new CMRR facility which would include a single above-ground, consolidated nuclear material-capable, Hazard Category 2 laboratory building (construction option 3) with a separate, adjacent administrative office and support functions building, now referred to as the CMRR Radiological Laboratory/Utility/Office Building (CMRR RLUOB). Upon completion, the CMRR Facility would replace the CMR Building, operations would be moved to the new CMRR Facility, and the vacated CMR Building would undergo decommissioning, decontamination, and demolition. (While the CMRR RLUOB has been constructed in TA–55 at LANL, the installation of laboratory equipment has not been completed and operations have not begun). Since 2004, the planning process for the construction and operation of the CMRR–NF has continued to progress and take into consideration newly gathered site-specific data and safety and security requirements.

Purpose and Need: The NNSA's purpose and need for proposing the construction and operation of the CMRR–NF have not changed since the CMRR EIS was prepared and issued in 2003. NNSA needs to provide the physical means for accommodating the CMR Building's functional, mission-critical nuclear capabilities, and to