

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

DEFENSE NUCLEAR FACILITIES SAFETY BOARD  
Public Hearing and Meeting on Los Alamos National  
Laboratory at Santa Fe, New Mexico  
Thursday, November 17, 2011  
Session II  
7:00 p.m.  
Santa Fe Convention Center  
201 W. Marcy Street  
Santa Fe, New Mexico 87501

## 1 BOARD:

2 Dr. Peter S. Winokur, Chairman  
3 Ms. Jessie H. Roberson, Vice Chairman  
4 Dr. John E. Mansfield, Board Member  
5 Mr. Joseph F. Bader, Board Member  
6  
7 Mr. Timothy J. Dwyer, Technical Director  
8 Mr. Richard A. Azzaro, General Counsel  
9 Mr. Brett P. Broderick, Board Technical Staff  
10 Mr. Richard T. Davis, Board Technical Staff  
11 Mr. John A. Pasko, Board Technical Staff

## 12 ALSO PRESENT:

13 Dr. Donald L. Cook, Deputy Administrator for  
14 Defense Programs, National  
15 Nuclear Security Administration  
16 Mr. Kevin W. Smith, Site Office Manager, Los  
17 Alamos Site Office  
18 Dr. Charles Keilers, Assistant Manager for  
19 Safety Operations, Los Alamos Site  
20 Office  
21 Dr. Carl Beard, Principal Associate Director  
22 for Operations and Business, Los Alamos  
23 National Laboratory  
24 Mr. Charles Anderson, Acting Associate  
25 Director for Nuclear and High Hazard  
Operations, Los Alamos National  
Laboratory  
Mr. John Krepps, Assistant Manager for Field  
Operations, Los Alamos National  
Laboratory

18

19

20

21

22

23

24

25

1	I N D E X	
2	Chairman's Opening Remarks	4
3	Statement by Mr. Mr. Richard T. Davis, Board Technical Staff	9
4	Statement by Mr. Kevin W. Smith, Site Office Manager, Los Alamos Site Office	20
6	Questions by Board for Panel	25
7	Public Statements:	
8	Greg Mello, Los Alamos Study Group	89
9	Peter Neils, Los Alamos Study Group	94
10	Joni Arends, Concerned Citizens for Nuclear Safety	95
11	Scott Kovac	95
12	Susan Rodriguez	98
13	Dario Rodriguez-Bejarano	102
14	Marian Naranjo	107
15	Dominique Mazeaud	111
16	Anna Hansen	113
17	Shannyn Sollitt	116
18	Robert Gilkeson	119
19	Anaria Ray	125
20	Biata Tsosie	126
21	Jon Block	129
22	Comments of the Board	131
23	Chairman's Closing Remarks	131
24	Adjournment	135
25		

1           CHAIRMAN: Good evening. Please take your  
2 seats. We will now resume this public meeting and  
3 hearing.

4           My name is Peter Winokur. And I am the  
5 chairman of the Defense Nuclear Facilities Safety  
6 Board. I will preside over this public meeting and  
7 hearing. I would like to introduce my colleagues on  
8 the Safety Board.

9           To my immediate right is Ms. Jessie Roberson,  
10 the Board's Vice Chairman. To my immediate left is  
11 Dr. John Mansfield. Next to him is Mr. Joseph Bader.  
12 We four constitute the Board.

13           The Board's General Counsel, Mr. Richard  
14 Azzaro, is seated to my far left. The Board's  
15 Technical Director, Mr. Timothy Dwyer, is seated to my  
16 far right. Several members of the Board's staff  
17 closely involved with oversight of the Department of  
18 Energy's defense nuclear facilities are also here.

19           Today's meeting and hearing was publicly  
20 noticed in the Federal Register on October 4, 2011.  
21 The meeting and hearing are held open to the public  
22 per the provisions of the Government in the Sunshine  
23 Act.

24           In order to provide timely and accurate  
25 information concerning the Board's public and worker

1 health and safety mission throughout the Department of  
2 Energy's defense nuclear complex, the Board is  
3 recording this proceeding through a verbatim  
4 transcript, video recording, and live video streaming.

5           The transcript, associated documents, public  
6 notice, and video recording will be available for  
7 viewing in our public reading room in Washington, D.C.  
8 In addition, an archived copy of the video recording  
9 will be available through our web site for at least  
10 60 days.

11           Per the Board's practice and as stated in the  
12 Federal Register notice, we will welcome comments from  
13 interested members of the public at the conclusion of  
14 testimony, at approximately 8:30 p.m. for this  
15 session.

16           A list of those speakers who have contacted  
17 the Board is posted at the entrance to this room. We  
18 have generally listed the speakers in the order in  
19 which they have contacted us or, if possible, when  
20 they wished to speak. I will call the speakers in  
21 this order and ask that speakers state their name and  
22 title at the beginning of their presentation.

23           There is also a table at the entrance to this  
24 room with a sign-up sheet for members of the public  
25 who wish to make a presentation but did not have an

1 opportunity to notify us ahead of time. They will  
2 follow those who have already registered with us in  
3 the order in which they have signed up.

4 To give everyone wishing to make a  
5 presentation an equal opportunity, we ask speakers to  
6 limit their original presentations to five minutes.  
7 The Chair will then give consideration for additional  
8 comments as time permits.

9 Presentations should be limited to comments,  
10 technical information, or data concerning the subjects  
11 of this public meeting and hearing. The Board Members  
12 may question anyone making a presentation to the  
13 extent deemed appropriate.

14 A record of this proceeding will remain open  
15 until December 19, 2011.

16 I would like to reiterate that the Board  
17 reserves its right to further schedule and regulate  
18 the course of this meeting and hearing, to recess,  
19 reconvene, postpone, or adjourn this meeting and  
20 hearing, and to otherwise exercise its authority under  
21 the Atomic Energy Act of 1954 as amended.

22 I would now like to discuss why the Board  
23 chose to hold a public hearing concerning the Los  
24 Alamos National Laboratory. First the Board intends  
25 to hold more public meetings in the communities near

1 defense nuclear facilities. Many of the Board's  
2 public hearings are held in Washington, D.C., a great  
3 distance from those members of the public who have a  
4 vested interest in these sites.

5           Second, Los Alamos's role in the nuclear  
6 weapons complex is unparalleled. It is one of the  
7 oldest sites in the complex and arguably the most  
8 challenging site for NNSA to safely manage.

9           Los Alamos' defense nuclear facilities  
10 perform work as varied as nuclear component  
11 fabrication, basic and applied scientific research and  
12 development, and environmental restoration.

13           To support these wide-ranging missions, Los  
14 Alamos National Laboratory nuclear facilities house  
15 significant quantities of plutonium, uranium, tritium,  
16 and transuranic waste. A number of these facilities  
17 have been in service for many decades and are slated  
18 to be replaced by new, robust facilities that meet  
19 more stringent, modern safety requirements.

20           It's also important to note that many of the  
21 site's defense nuclear facilities are located in close  
22 proximity to surrounding communities.

23           The Board identified three topics for today's  
24 meeting and hearing that are high priorities due to  
25 their safety implications. Seismic safety at the

1 Plutonium Facility and site emergency preparedness  
2 were discussed this afternoon.

3           During tonight's session the Board will  
4 consider the safe operation and safety strategy for  
5 existing and planned Los Alamos National Laboratory  
6 defense nuclear facilities.

7           Because of the laboratory's historical role  
8 and its evolution over time, nuclear operations were  
9 conducted in many years in an expert-based manner that  
10 employed few formal rules and standards that govern  
11 work execution and safety practices.

12           In recent years Los Alamos has worked to  
13 attain the more disciplined approach to nuclear  
14 operations, engineering and maintenance, as required  
15 by the National Nuclear Security Administration.

16           In addition, the laboratory has encountered  
17 many challenges as it has sought to establish and  
18 maintain up-to-date nuclear facility analyses, termed  
19 safety bases, to adequately characterize and control  
20 the hazards from nuclear operations.

21           This is complicated by the fact that some of  
22 these facilities are well beyond their design life and  
23 are being called upon to continue to operate safely  
24 for a decade or more while robust replacement  
25 facilities are designed and constructed.



1           This evening the Board will examine the  
2 laboratory's efforts to improve formality of  
3 operations, effectively update safety bases, and  
4 mitigate risks associated with the continued operation  
5 of several aging nuclear facilities.

6           This concludes my opening remarks. I will  
7 now turn to the Board Members for their opening  
8 statements. Ms. Roberson.

9           VICE CHAIRMAN: No, thank you, Mr. Chairman.

10          CHAIRMAN: Dr. Mansfield.

11          DR. MANSFIELD: Nothing at this time,  
12 Mr. Chairman.

13          CHAIRMAN: Mr. Bader.

14          MR. BADER: Nothing at this time.

15          CHAIRMAN: This concludes the Board's opening  
16 remarks.

17          At this time I would like to introduce  
18 Mr. Todd Davis who will provide testimony from the  
19 Board's staff on the topic of safety at Los Alamos  
20 National Laboratory defense nuclear facilities.

21          Mr. Davis, I will accept your full written  
22 statement into the record. Please summarize your  
23 written statement in ten minutes or less.

24          MR. DAVIS: Good evening, Mr. Chairman and  
25 members of the Board. My name is Todd Davis. I'm one

1 of the Board's site representatives responsible for  
2 overseeing the National Nuclear Security  
3 Administration activities at the Los Alamos National  
4 Laboratory.

5           In this session of the public hearing, the  
6 Board is considering the safety of operations at  
7 existing Los Alamos nuclear facilities along with the  
8 plans and safety strategies for replacement  
9 facilities. I will discuss the status and current  
10 issues with safety basis documents and efforts to  
11 implement a robust and mature formality of operations  
12 program at Los Alamos.

13           I will also discuss operations at existing  
14 aging facilities and safety strategies to ensure  
15 replacement facilities are designed and constructed to  
16 meet modern, robust nuclear safety standards.

17           Consistent with the principles of integrated  
18 safety management, the safety basis for nuclear  
19 facilities ensures that hazardous work can be  
20 performed with adequate protection for the public,  
21 worker, and environment.

22           At Los Alamos NNSA and its contractors have  
23 struggled to develop and implement modern compliant  
24 safety basis documents. The proximity of facilities  
25 to the site boundary and significant quantities of

1 nuclear material at Los Alamos result in offsite doses  
2 to the public for postulated accidents that exceed DOE  
3 [Department of Energy] Evaluation Guideline in many  
4 cases.

5 Aging facilities that lack modern safety  
6 systems like safety-class confinement ventilation  
7 systems have limited the site's ability to credit  
8 effective safety controls for these scenarios. In  
9 January of 2001, DOE published 10 CFR 8 -- Part 830,  
10 the nuclear safety management rule.

11 Subpart B of this rule established safety  
12 basis requirements for DOE nuclear facilities and  
13 required contractors to submit new compliant  
14 Documented Safety Analyses by April 10, 2003. Subpart  
15 B also requires the contractor to annually submit  
16 either an updated Documented Safety Analysis for  
17 approval or a letter stating that there have been no  
18 changes.

19 Despite the requirements in this rule, Los  
20 Alamos' nuclear facilities have continued to operate  
21 since 2003 with outdated safety basis documents that  
22 are not updated on an annual basis.

23 When the new contractor took over in 2006,  
24 they concluded that the safety bases were not fully  
25 compliant within NNSA rules and standards and the

1 safety controls were not rigorously implemented. In  
2 December 2006 the site office approved a safety basis  
3 improvement plan to develop compliant safety bases.  
4 This plan was not fully successful.

5           Although improvements in the development and  
6 quality of safety basis documents have occurred since  
7 2006, timely submittal and approval of quality safety  
8 basis documents has proved problematic. Currently the  
9 Radioactive Liquid Waste Treatment Facility, the  
10 Weapons Engineering Tritium Facility, and the Area G  
11 safety basis documents have not had major revisions  
12 since 1995, 2002, and 2003, respectively.

13           Some improvements have been made in meeting  
14 the annual update requirements for facilities with  
15 modern safety basis documents. However, LANL  
16 continues to struggle in this area as well.

17           Following the 2008 major revision to the  
18 safety basis document for the Plutonium Facility  
19 updates were submitted but not approved in 2009, 2010,  
20 and 2011. A second revision to the 2011 update was  
21 recently approved by NNSA but has not been implemented  
22 at this time.

23           High-quality, comprehensive safety basis  
24 documents that meet the requirements of the safety  
25 management rule are fund -- are a fundamental basis

1 for ensuring safety at NNSA nuclear facilities.

2 NNSA and LANL are improving the quality and  
3 timeliness of these documents at Los Alamos. However,  
4 additional emphasis and effort is required to ensure  
5 modern compliant documents are in place and updated on  
6 an annual basis.

7 Another key ingredient for performing work  
8 safely at defense nuclear facilities is the formality  
9 and the performance of work, including operations,  
10 engineering, maintenance, and training. When the new  
11 contractor took over in 2006, they recognized that  
12 substantial improvements in these programs were  
13 required and initiated a significant overhaul of the  
14 programs governing formality of operations.

15 The multiyear effort which has been  
16 emphasized by NNSA via performance incentives included  
17 development of compliant institutional programs and  
18 infrastructure followed by field implementation at  
19 LANL facilities.

20 Currently the contractor has largely  
21 completed core implementation of the improved  
22 institutional programs at all LANL nuclear facilities.  
23 However, continued operational and engineering issues  
24 along with NNSA and contractor assessment results  
25 highlight the need for improved maturity in these

1 programs at Los Alamos.

2 In September NNSA directed the contractor to  
3 identify corrective actions in response to operational  
4 events and assessment results related to formality of  
5 operations at the Plutonium Facility and waste  
6 disposition facilities.

7 At the Plutonium Facility, recent issues  
8 associated with criticality safety implementation and  
9 conduct of operations prompted contractor management  
10 to suspend operations, to communicate expectations to  
11 the work force, perform training, and review the  
12 adequacy and implementation of criticality safety  
13 controls. NNSA also identified concerns with safety  
14 systems and safety management programs at waste  
15 disposition facilities.

16 Based on these issues, NNSA has -- NNSA  
17 requested the contractor to determine whether safety  
18 management programs at these facilities required  
19 compensatory measures and expressed concern about the  
20 recurring nature of safety problems.

21 As a part of these -- as a part of the  
22 improvements in conduct of engineering, the contractor  
23 established a cognizant system engineering program and  
24 has been working to staff, train, and mature this  
25 program. These engineers are a key element for

1 ensuring that LANL safety systems remain operable and  
2 reliable.

3           However, a recent NNSA assessment concluded  
4 that LANL -- that the LANL program is not compliant  
5 with DOE requirements, noting that the majority of  
6 these engineers are not knowledgeable of key safety  
7 parameters for their assigned safety systems.

8           Strengthening formality of operations is an  
9 important step in achieving sustainable safe  
10 operations at LANL nuclear facilities. At Los Alamos  
11 additional effort by the contractor and oversight by  
12 NNSA are required to mature these programs to ensure  
13 work can be safely performed.

14           NNSA is pursuing several projects to replace  
15 aging nuclear facilities at LANL with robust  
16 facilities that meet modern nuclear safety standards,  
17 including the Chemistry and Metallurgy Research  
18 Replacement nuclear facility, the Radioactive Liquid  
19 Waste Treatment Facility upgrade, and the Transuranic  
20 Waste Facility.

21           Given the age and design of the existing  
22 facilities, structural and safety system  
23 vulnerabilities exist that require additional scrutiny  
24 to ensure nuclear operations can be performed with  
25 adequate protection of the public, worker, and

1 environment.

2           The Chemistry and Metallurgy Research  
3 building began operations in 1952 and sits atop a  
4 known seismic fault. Recently NNSA had plans to  
5 terminate operations in this facility in 2010.  
6 However, due to programmatic needs, this facility will  
7 not -- will now operate for at least another decade  
8 until the replacement facility is available.

9           The Board and its staff reviewed the safety  
10 basis that supports the post-2010 operations including  
11 a reduction in nuclear material limits such that  
12 off-site dose consequences will not exceed the DOE  
13 Evaluation Guideline during postulated accident  
14 scenarios. The facility still poses a threat to  
15 workers in a seismic event, and options to relocate  
16 its analytical chemistry activities to other  
17 facilities should be continually evaluated.

18           In late 2009 the contractor restarted  
19 transuranic liquid waste operations at the Radioactive  
20 Liquid Waste Treatment Facility following a  
21 significant multiyear refurbishment of equipment and  
22 systems. These upgrades have greatly improved the  
23 reliability of transuranic liquid waste operations.

24           However, age-related degradation remains a  
25 concern for equipment associated with low-level liquid



1 waste processing systems. As previously noted the  
2 safety basis -- the safety basis for this activity has  
3 not had a major revision since 1995.

4 The contractor recently provided a strategy  
5 to NNSA for updating this document in the next  
6 18 months. Significant contractor effort is focused  
7 on solid transuranic waste disposition activities to  
8 support Area G closure.

9 Transuranic waste associated with disposition  
10 activities at Area G represents a significant source  
11 term at Los Alamos with offsite dose consequences that  
12 exceed the DOE Evaluation Guideline for postulated  
13 accident scenarios. In July the contractor completed  
14 an independent assessment of facility and programmatic  
15 operations for waste disposition including Area G.

16 The review concluded that these operations  
17 were not significantly -- were significantly  
18 noncompliant with requirements associated with safety  
19 basis, engineering, fire protection, criticality of  
20 safety, emergency preparedness, quality assurance, and  
21 management systems. Contractor management has  
22 accepted these findings and is working to develop and  
23 implement comprehensive corrective actions.

24 Clearly the ultimate strategy for reducing  
25 risk at Area G is to process the waste and ship it

1 offsite. Given the significant programmatic pressure  
2 to achieve Area G closure and nuclear material  
3 involved and the independent assessments results, NNSA  
4 needs to focus appropriate resources on approval and  
5 implementation of an upgraded safety basis and improve  
6 operational performance.

7           For the planned replacement facilities, the  
8 Board and its staff have performed project reviews to  
9 ensure early integration of safety into the design and  
10 construction process.

11           For the Chemistry and Metallurgy Research  
12 building replacement project, the Defense  
13 Authorization Act of fiscal year 2009 directed the  
14 Board to submit a report to the Congressional defense  
15 committees certifying that concerns raised by the  
16 Board regarding design of safety systems and seismic  
17 issues had been resolved. The Board provided input to  
18 NNSA throughout the certification process on safety  
19 concerns and the actions necessary to resolve them.

20           In September 2009 the Board completed its  
21 review and provided a report to Congress certifying  
22 that concerns regarding the design of the CMRR  
23 [Chemistry and Metallurgy Research Replacement] have  
24 been resolved, provided NNSA completed full  
25 implementation of commitments related to

1 safety-related processes, structures, systems, and  
2 components.

3 For other LANL projects, the Board and its  
4 staff performed key design and safety basis reviews,  
5 especially at critical decision points, to ensure  
6 safety is adequately integrated into the design  
7 process.

8 Thank you. That concludes my prepared  
9 remarks. I'll answer any questions at this point.

10 CHAIRMAN: Do the Board Members have any  
11 questions for Mr. Davis? Hearing none, thank you,  
12 Mr. Davis.

13 MR. DAVIS: Thank you.

14 CHAIRMAN: I would like to invite the panel  
15 of witnesses from DOE and its contractor organization  
16 for the topic of safety at Los Alamos defense nuclear  
17 facilities to take their seats as I introduce them.

18 Dr. Donald Cook is the Deputy Administrator  
19 for Defense Programs at the National Nuclear Security  
20 Administration. Mr. Kevin Smith is the Los Alamos  
21 Site Office Manager. Dr. Charles Keilers is the  
22 Assistant Manager for Safety Operations at the site  
23 office.

24 Mr. John Krepps is the Assistant Manager for  
25 Field Operations at the site office. Dr. Carl Beard

1 is the Principal Associate Director for Operations and  
2 Business at the Los Alamos National Laboratory.  
3 Mr. Charles Anderson is the Acting Associate Director  
4 for Nuclear and High Hazard Operations.

5           The Board will either direct questions to the  
6 panel or individual panelists who will answer them to  
7 the best of their ability. After that initial answer,  
8 other panelists may seek recognition by the Chair to  
9 supplement the answer as necessary. If panelists  
10 would like to take a question for the record, the  
11 answer to that question will be entered into the  
12 record of this hearing at a later time.

13           In addition to Mr. Smith, does anybody on the  
14 panel wish to submit written testimony at this time?  
15 Seeing none, that -- we'll continue with an opening  
16 statement by Mr. Smith. Obviously we'll accept your  
17 written comments into the record and ask you to  
18 summarize them in ten minutes or less. Mr. Smith.

19           MR. SMITH: Thank you, Mr. Chairman. I'll be  
20 glad to. During the last four years, the National  
21 Nuclear Security Administration, NNSA, and the Los  
22 Alamos National Security, LLC, LANS, have dramatically  
23 improved our understanding of the factors affecting  
24 the safety of the laboratory's operations; and we made  
25 significant strides in improving nuclear safety.

1           In 2006 the laboratory self-reported  
2 noncompliances in controlling and updating the safety  
3 basis for its nuclear facilities. The safety bases  
4 are the NNSA approved documents that describe the  
5 work, the facility, the hazards, and the controls  
6 depended upon to protect the workers, the public, and  
7 the environment.

8           In 2006 several of these key documents lacked  
9 clear linkage between postulated accidents and the  
10 controls intended to prevent or mitigate the  
11 accidents. They largely lacked configuration control,  
12 important analyses that were difficult for facility  
13 management to find and track and update, and interim  
14 documents were often being used. Most nuclear safety  
15 bases have not been updated in many years.

16           Since then LANL has established configuration  
17 control of safety bases. Eight of the nine safety  
18 bases have been updated since 2006. Six have major  
19 updates this year. In the process of updating these  
20 safety bases, LANL revisited the hazard analysis and  
21 the accident analysis and the control section to  
22 ensure a clear linkage. The NNSA nuclear safety  
23 specialists then reviewed these analyses to ensure  
24 they met standards.

25           Another example in 2006, the laboratory did

1 not have established procedures and programs for  
2 formality of operations and could not readily assure  
3 that the requirements for conduct of operations,  
4 engineering, maintenance, and training were being met.

5           Through an intensive effort, LANS has  
6 established and largely implemented and continues to  
7 improve these management programs, incorporating the  
8 best practices from other DOE sites. In 2006 LANS did  
9 not have a trained employed cadre of system engineers  
10 responsible for ensuring that safety credited systems  
11 could perform their intended function during an  
12 accident.

13           LANS has since staffed and established a  
14 cadre -- such a cadre and is maintaining its cognitive  
15 system engineered program. LANS has also implemented  
16 a good facility management model that closely couples  
17 operations to programmatic activities in LANL nuclear  
18 facilities.

19           LANL does have operational deviations that  
20 occur from time to time. Many of these were  
21 self-reported. But not to the percentage that the  
22 site office and NNSA believes to be a good measure  
23 yet. We think more should be self-identified and less  
24 by outside agencies.

25           But they are reported by the personnel when

1 they -- they are readily reported by the personnel  
2 when they occur. And, when appropriate, they are  
3 thoroughly and objectively investigated by NNSA and/or  
4 LANS.

5           The special and unique aspects of the  
6 laboratory's mission requires nuclear operation to be  
7 conducted in a manner where there is a questioning  
8 attitude and it's cultivated to be there. Nuclear  
9 safety is continuously examined. Self discovery and  
10 reporting is valued. And organizational learning is  
11 embraced.

12           These are the key elements of a strong  
13 nuclear safety culture. And DOE, NNSA, and LANL  
14 expect -- are expected to have that at this site and  
15 elsewhere -- or as expected at this site and  
16 elsewhere. It's the standard we strive for.

17           So let me bring you up to this year.  
18 Currently we have a full court press on bringing it  
19 and achieving and sustaining the safety basis  
20 standards and formality of operations that the  
21 Department expects.

22           We have put a clear-cut set of standards in  
23 the 2012 performance evaluation plan. And it has, for  
24 lack of a better term, plenty of teeth. And that we  
25 have made it very clear that we are going to reach a

1 certain sustainment level and sustain it. And we want  
2 to -- and we want the LANS contractors to be able to  
3 prove it.

4           And so that the metrics that we'll discuss I  
5 anticipate in a few minutes that -- that can  
6 demonstrate that level of positive performance are  
7 being developed and -- and tracked in several  
8 organizations right now. I will also say that the  
9 site office is not -- is also part of the issue that  
10 we have to make sure we sustain.

11           We have now trained the people. And I have  
12 made it very clear to our staff that we expect the  
13 ability to turn safety documents in a time that it  
14 keeps them fresh and they don't get stale, and that we  
15 won't be the limiting factor in safety basis  
16 performance in the future.

17           Mr. Keilers knows that -- or Dr. Keilers  
18 knows that's a requirement for his performance. And  
19 so we have made the steps this year, if you will, to  
20 reach the standards that we will sustain and is  
21 expected by the Department. That concludes my  
22 remarks.

23           CHAIRMAN: Thank you for your comments. The  
24 Board will now direct questions to the panel. And  
25 we'll begin the questioning with Dr. Mansfield.



1 DR. MANSFIELD: Thank you, Mr. Chairman. As  
2 I understand it, now you have achieved the status of  
3 having a compliant --

4 MR. AZZARO: Mr. Chairman, the court reporter  
5 needs you. His mike.

6 CHAIRMAN: Is the mike on?

7 MR. AZZARO: You've got to pull it in closer.  
8 Or maybe -- you're on.

9 DR. MANSFIELD: Okay. It's on.

10 MR. AZZARO: That's better.

11 DR. MANSFIELD: Okay. As I understand it,  
12 you have now achieved the status of having a 10 CFR  
13 830 compliant safety bases for all Los Alamos  
14 facilities; is that correct?

15 MR. SMITH: Let me defer to Mr. Keilers,  
16 because he's my expert in this area.

17 DR. KEILERS: So let me put it this way, so  
18 the laboratory has been on an improving trend since  
19 2006 on the safety bases. And you can see that in --  
20 eight of the nine safety bases have been updated since  
21 2006. Six of the nine have been undated in the last  
22 year.

23 When you look at what's required to be in a  
24 safety basis, our standards are very high. But -- our  
25 standards and LANS's standards as far as expectations.

1 And you can see that -- I refer to Mr. Davis's  
2 testimony where, for the Plutonium Facility, we've  
3 gone through four iterations in the last three years  
4 before we've finally achieved a product that was  
5 approvable. The standards are extremely high.

6 Now, given all that, if you'll look at the  
7 key elements, the key expectation in the nuclear  
8 safety management Rule 10 CFR 835 -- sorry. 10 CFR  
9 830 that we're talking about, there are several  
10 requirements that apply specifically to safety bases.

11 Contractors are responsible for operating  
12 nuclear facilities. They must perform work in  
13 accordance with the approved safety bases with hazard  
14 controls that ensure adequate protection of the  
15 workers, the public, and the environment.

16 They must establish and maintain the safety  
17 bases. They identify the scope of the work, the  
18 hazards, and the controls upon which the contractor  
19 will rely to ensure adequate protection. They must  
20 establish and implement a change control process, the  
21 USQ [Unreviewed Safety Question] process.

22 If they discover a potential inadequacy in  
23 the safety bases, they must take appropriate actions  
24 to place or maintain the facility in a safe condition  
25 until the safety of the situation is evaluated. They

1 must notify DOE, perform a USQ determination, notify  
2 DOE of the results, and submit the evaluation and the  
3 safety of the situation to DOE prior to removing any  
4 operational restrictions put in place because of this  
5 situation.

6           So these are some, but not all, this is not  
7 the all-inclusive list of everything that's required  
8 under the nuclear safety management rule.

9           Now, the nuclear safety management rule also  
10 requires that they must keep the safety bases current  
11 and to reflect changes in the facility, the work, and  
12 the hazards including submitting to DOE annually  
13 either an updated safety basis or a letter that states  
14 there have been no changes since the prior submission.

15           And so that is the area of concern, that is  
16 an area that we are working to improve upon, because  
17 as I mentioned earlier six of -- we have achieved six  
18 of nine within the last year. So we have not fully  
19 implemented that aspect of the thing.

20           That said, if you look at the full scope of  
21 what's required under 10 CFR 830, as far as ensuring  
22 that the work scope is identified, that the hazards  
23 are identified, the accident analyses are conducted,  
24 and the controls are identified, we believe that all  
25 the facilities from that standpoint are meeting the

1 expectations of the nuclear safety management rule.

2 DR. MANSFIELD: Okay. That's what I wanted  
3 to hear you say. Just let me ask this of Mr. Smith  
4 and Dr. Cook individually or together. What  
5 constitutes compliance with 10 CFR 830?

6 MR. SMITH: Compliance means that all of the  
7 LANL nuclear facilities have a DOE and NNSA approved  
8 safety basis that analyzes the hazards, establishes  
9 the controls which are in place to safeguard nuclear  
10 material in order to protect the workers, the public,  
11 and the environment.

12 DR. MANSFIELD: Okay. Is that your answer  
13 too?

14 DR. COOK: Yes.

15 DR. MANSFIELD: Okay. Fine. There are -- in  
16 2006 there were -- essentially none of the facilities  
17 I believe were -- had compliant safety bases. Today  
18 still Area G and the Tritium Facility, RLWTF, have --  
19 and curiously have the same core safety analysis  
20 documents that were declared noncompliant in 2006.  
21 And yet they're sufficient now for you to judge that  
22 Part 830 -- you've complied with Part 830. That seems  
23 odd to me.

24 MR. SMITH: If it's okay, I'd like to have  
25 Mr. Keilers start that. And then we'll have Mr. --

1 Dr. Beard follow that up.

2 DR. MANSFIELD: Okay.

3 DR. KEILERS: So the key element there is  
4 the -- is what I mentioned earlier, the USQ process,  
5 the change control process, which requires that any  
6 change to the facility, to procedures, operating  
7 procedures is reviewed by people who are specially  
8 trained to do this to see if it has created a  
9 condition that would require -- that would affect  
10 safety. And then require NNSA approval.

11 And so that's the key element. So since 2006  
12 I think you would find that, for all our safety bases,  
13 we've -- except for one, Radioactive Liquid Waste  
14 Treatment Facility, we have at least made minor  
15 updates. We have updated the TSRs [Technical Safety  
16 Requirement].

17 We have religiously -- the contractors  
18 religiously use the USQ process to review changes to  
19 the facility to make sure that any new operations that  
20 come in, any new hazards, are essentially evaluated to  
21 make sure that the control set is adequate. And when  
22 the -- if there are issues with the control set, then  
23 the contractor has proposed changes to the -- to the  
24 requirements that they use to operate the facility,  
25 the technical safety requirements.

1 DR. MANSFIELD: So -- so your answer seems --  
2 seems to be that you really have changed the core  
3 safety analysis, because you've added further controls  
4 and further analyses. And it's not correct to say  
5 that you're using the same core analyses that were  
6 declared to be noncompliant in 2006?

7 DR. KEILERS: The -- when significant  
8 operations have been brought in, we have made minor  
9 changes to the safety bases and corresponding changes  
10 to the controls that we operate the facilities under,  
11 the technical safety requirements.

12 DR. MANSFIELD: We --

13 DR. KEILERS: But let me elaborate also. The  
14 thing about it is our standards in this area are  
15 very high for -- for the quality of the documentation,  
16 the justification for the controls, the linkage  
17 between the work, the hazards, the accident analysis,  
18 and then the control set that we end up with.

19 And so in the newer safety bases that the  
20 laboratory has been submitting and then we have been  
21 reviewing, we have very high expectations for the  
22 quality of that linkage. And so --

23 DR. MANSFIELD: So the quality of the safety  
24 basis --

25 DR. KEILERS: Correct.

1 DR. MANSFIELD: -- for these three facilities  
2 really has improved?

3 DR. KEILERS: So Area G -- we are currently  
4 reviewing a revision to Area G. We've had -- actually  
5 gone through several revisions, reviewed several  
6 revisions over an extended period, each time striving  
7 to improve the quality of that linkage, that  
8 justification. And so -- and we are currently  
9 reviewing the latest on that. And each one has gotten  
10 better.

11 DR. MANSFIELD: A number of them now have  
12 reached a level below the 25 rem Evaluation Guideline.  
13 But as you've heard us say several times, that's -- in  
14 our view, all of us, that's not the goal of  
15 adequate -- that's not what you should aim for for  
16 adequate protection of public health and safety. It  
17 should be considerably -- significantly less than 25  
18 rem to achieve the goal that SEN 35-91 [Secretary of  
19 Energy Notice] states.

20 What additional actions are planned and what  
21 kind of compensatory measures and what kind of  
22 controls will get you to small fractions of the  
23 Evaluation Guidelines, not just for the three  
24 facilities we were talking about but for all of them?

25 MR. SMITH: Let me start first, that I'm just

1 personally celebrating RANT [Radioactive  
2 Nondestructive Testing Facility] just now making it  
3 below 25 rem. So again we're on a journey and that we  
4 have -- have to make the next step.

5           So I agree with you that we have to keep  
6 going. I just am very pleased that we've made the  
7 first sets of milestones and we have a path that -- to  
8 really get to 25 and below across the board. And  
9 there are a number of activities that can be done.

10           If it's okay with you, I would like to shift  
11 this over to Dr. Beard and let him give a little bit  
12 more detail on it. But I will tell you that it is an  
13 absolute focus of mine to be the best in all aspects  
14 of what we do. And that includes safety basis work  
15 and get them all within standards. Dr. Beard.

16           DR. BEARD: Thank you. So in terms of  
17 specific controls that we look at to continue to  
18 reduce the potential offsite dose, it really both is  
19 facility specific. But it, you know, goes through the  
20 gamut.

21           We, of course, continue to look at minimizing  
22 the material-at-risk either by just reducing the  
23 overall amount of material that we have in a facility  
24 overall. That's a specific strategy we're deploying  
25 at the Tritium Facility to -- better protecting the



1 material that's in the facility, such as  
2 containerization inside the gloveboxes at PF-4, which  
3 is a strategy that we continue to pursue there to  
4 continue to drive down the material-at-risk.

5           In addition, we look at mechanisms and  
6 specifically engineered mechanisms to mitigate  
7 initiating events, such as a fire, and move to  
8 safety-class systems such as moving to safety-class  
9 fire suppression within the Plutonium Facility, which  
10 we now have for all events, except for a seismic  
11 event; and, as we discussed early -- earlier today,  
12 intend to upgrade that system where it would be safety  
13 class even in the event of a seismic event, therefore,  
14 being able to put out a fire in the facility and  
15 prevent its spread and dispersion of material.

16           And then other controls like the seismic  
17 switches in PF-4 that we installed that cut off  
18 electric power in a seismic event, better flow of our  
19 fire suppression systems so it could put out bigger  
20 fires. Those of that nature, engineering -- basically  
21 engineering controls to mitigate initiating events.

22           And then ultimately we have -- have  
23 administrative controls that we've put in place such  
24 as PF-4, where we worked to better control the more  
25 hazardous forms of material such as molten plutonium

1 or plutonium 238. So we take for those operations the  
2 absolute minimum amount we have to have in order to  
3 execute the work.

4 So it's the real full suite of controls. We  
5 look at all the facilities. And if you go facility by  
6 facility, you pretty much can find those three basic  
7 strategies employed in different forms. And that's  
8 what we'll continue to follow.

9 We think we have paths to get all of our  
10 facilities well below the Evaluation Guideline. As  
11 I've told this Board many times, that is our goal, to  
12 be -- not challenge the Evaluation Guideline, be  
13 significantly below it. And I think we'll achieve  
14 that in the not too distant future.

15 DR. MANSFIELD: Good. Okay. I note that  
16 you've got a mix of engineering controls and  
17 administrative controls. I just want to point out  
18 that in my view, a couple of the controls that you've  
19 mentioned as engineering controls are really heavily  
20 administrative as well.

21 Keeping the lids on the containers in the  
22 gloveboxes is an administrative control, even though  
23 the -- even though the sealed containers is  
24 engineered. And keeping the areas of the floor --  
25 policing the combustible materials on the floor is an

1 administrative control also.

2 I'm not saying there's anything bad about  
3 administrative controls. It's just that they have to  
4 be maintained like safety-class controls.

5 DR. BEARD: I agree.

6 DR. MANSFIELD: Thank you, Mr. Chairman.

7 CHAIRMAN: You know what, I'm still trying to  
8 get to the bottom and to understand what a compliant  
9 DSA is in your opinion. It's not just an esoteric  
10 discussion. These are not the Board's rules, the  
11 nuclear safety rule, and its associated standard.

12 And I think the reason why we want clear  
13 definition is so that we can measure along with you  
14 when you do have a compliant DSA. And I know we've  
15 had discussions about that.

16 Is it your opinion, Dr. Beard, that you'll  
17 have a compliant DSA when you get to a small fraction  
18 of the Evaluation Guideline in terms of the mitigated  
19 offsite dose to the public or do you have another  
20 definition of what a compliant Documented Safety  
21 Analysis is?

22 DR. BEARD: My definition of compliance is  
23 when we have the system -- the safety management  
24 programs in place, which we do, to fulfill the  
25 requirements, when we produce documents that follow

1 the DOE standards and, then when we get approval of  
2 the safety basis from the government. Ultimately I  
3 get my license to operate from the federal government.  
4 And it's their evaluations of those documents that I  
5 have to rely upon.

6 CHAIRMAN: Okay. So let me turn to you,  
7 Mr. Smith, and -- because I know you want to answer.  
8 Just so we can get very specific, if the lab submits  
9 to you a Documented Safety Analysis with a dose that  
10 exceeds the Evaluation Guideline, do you -- do you  
11 judge that to be a compliant Documented Safety  
12 Analysis?

13 MR. SMITH: It can be a compliant safety  
14 analysis. Again we'll have to look at it. But again,  
15 remember, we talk about a dose as a planning factor.  
16 And then we have to take the rest of the consideration  
17 involved.

18 But I was going to share with you a little  
19 bit more of something that kind of gums up the work  
20 when we talk about compliant DSAs. And that is, we  
21 can have a compliant DSA that meets the requirements  
22 but is very difficult to operate in, very difficult to  
23 update, very difficult to understand. It's like  
24 trying to reset your oil light in the car sometimes  
25 and reading the instructions to do that.

1           What we're trying to get with compliant DSAs  
2   are DSAs that are very easy, very clean, and very  
3   repeatable to operate. And so sometimes when we talk  
4   about a high quality DSA or a compliant DSA, people  
5   mix those terms.

6           A compliant DSA meets the 830 requirements.  
7   We evaluate that very carefully through our SER  
8   [Safety Evaluation Report] process. And that -- but  
9   we want to have it so that it meets the quality and  
10  the ease of applicability and application, that it can  
11  be updated very quickly and very easily, and anybody  
12  can operate on it and not make a mistake.

13          CHAIRMAN: So does a -- let me ask the  
14  question again. To have a compliant DSA, do you need  
15  to re -- to continue to apply controls until you get  
16  to a small fraction of the Evaluation Guideline?

17          MR. SMITH: We can have a compliant DSA  
18  without being a small fraction. But that's not the  
19  Department's goal and objective.

20          CHAIRMAN: Okay. Let me -- let me move on.

21          MR. DWYER: Mr. Chairman.

22          CHAIRMAN: Yes. Go ahead.

23          MR. DWYER: If I could follow up with a  
24  couple things for clarity.

25          CHAIRMAN: Please go ahead.

1           MR. DWYER: And, Dr. Beard or Dr. Keilers,  
2 whichever one wants to answer. We keep talking about  
3 how many of the DSAs and how many were updated, how  
4 many were changed since 2006. What are the nine  
5 facilities that we're talking about?

6           DR. BEARD: So it's -- so the nine facilities  
7 are the Chemical and Metallurgical Research facility,  
8 CMR; the Plutonium Facility, PF-4; RANT, where we ship  
9 our waste from; WETF, which is the Tritium Facility;  
10 our nuclear environmental sites; our site-wide  
11 transportation; our Area G where we do transuranic  
12 storage; rad liquid waste treatment facility; and our  
13 WCRRF [Waste Characterization, Reduction and  
14 Repackaging Facility] repackaging facility. Did I get  
15 all of them?

16          MR. DWYER: Okay. And then eight of those  
17 have been --

18          DR. BEARD: The only one that's not been  
19 completely updated is rad liquid waste.

20          MR. DWYER: Okay. Thank you. Rather than  
21 listing the eight, it's easier to give me one. So  
22 that one still has a 1995 safety basis?

23          DR. BEARD: That is correct.

24          MR. DWYER: Okay. And I'm sorry. The  
25 Tritium Facility I thought still had a 2002 safety

1 basis. But you're telling me it's been updated since  
2 2006?

3 DR. KEILERS: The Tritium Facility safety  
4 basis was updated this year. It was not a complete  
5 update as far as in the accident analysis. But as far  
6 as, you know, reviewing the operations and the  
7 linkage, it was updated.

8 It was not -- there's more work that needs to  
9 be done to make that a truly quality document. But  
10 given the extent of time, you know, that that DSA has  
11 been out there and the difficulty of operating that  
12 facility with the old DSA, the 2002 DSA, you know, it  
13 was our judgment and the contractor's judgment that it  
14 was better to make the incremental improvement, lock  
15 in some improvement, on that safety basis and then  
16 move forward.

17 MR. DWYER: So we have made incremental  
18 improvement on the 2002 safety basis. Have we met all  
19 of the requirements of 10 CFR 830?

20 DR. KEILERS: Yes. The 2002 safety basis I  
21 believe was 830 compliant.

22 MR. DWYER: It's 830 compliant so it meets  
23 which --

24 DR. KEILERS: Yes.

25 MR. DWYER: Which standard?

1 DR. KEILERS: I'm not exactly sure what you  
2 mean by which standard in your question.

3 MR. DWYER: Did you follow the [DOE Standard]  
4 3009 methodology?

5 DR. KEILERS: Yes.

6 MR. DWYER: Okay. And the Area G safety  
7 basis?

8 DR. KEILERS: The area -- so the 2003 safety  
9 basis is the current safety basis for Area G. And  
10 that is the one that we've received several -- we've  
11 gone through several iterations with the laboratory.  
12 And we are currently reviewing a revision that we  
13 think is probably close.

14 MR. DWYER: So nothing has been approved  
15 since the 2003 DSA?

16 DR. KEILERS: Yes. But I refer you back to  
17 my previous discussion on the change control process,  
18 that any new operation that comes in or any new  
19 hazards introduced gets reviewed and handled on a case  
20 basis.

21 MR. DWYER: Okay. So as long as the USQ  
22 process is working properly, you consider that a  
23 compliant DSA?

24 DR. KEILERS: I would say that that is a  
25 major element of assuring compliance.



1           MR. DWYER: Okay. Then in the  
2 facility-centered assessment that was done, when the  
3 RANT and the WCRR and the Area G USQ processes were  
4 determined to be broken, wouldn't that invalidate your  
5 statement?

6           DR. KEILERS: I'll have to go back and -- you  
7 know, I'll have to go back and check that review. I  
8 do not think that that review specifically went and  
9 said that the USQ process was not functioning for  
10 those facilities. So I beg your indulgence. I would  
11 like to go check that.

12          CHAIRMAN: Okay. Mr. Smith.

13          MR. SMITH: I was going to say, if I may,  
14 that's -- since that was a self-assessment, I would  
15 like to -- I would recommend we give Dr. Beard a  
16 chance to comment on the facility-centered assessment,  
17 because some of the conclusions were not necessarily  
18 supported by the -- by the factual data in the report.

19                 But it-- and we are in the process of  
20 expecting that the corrective action plan that they're  
21 going to provide us -- and the official release of  
22 that document is still yet to come to us.

23          DR. BEARD: So yes, the facility-centered  
24 assessment was a self-assessment. We conducted it.  
25 It's part of our overall improvement efforts across

1 the site.

2           These facility-centered assessments are very  
3 broad assessments that center around specific facility  
4 areas. And we look at all aspects of our safety  
5 envelope as we execute work there. These are done by  
6 workers on the site. So these were written by our  
7 workers.

8           And in there there is contradictory language.  
9 So they start out by saying we had safe operations.  
10 And then they use some terminologies like  
11 significantly noncompliant. And so you really have to  
12 go to the background to look at the real true issues,  
13 what the deficiencies were and, you know, the measure  
14 of response that they warrant.

15           Now, we value these assessments. And we  
16 value the critical work that our workers gave and that  
17 the issues that they found do warrant attention. And  
18 we intend to give it the full attention.

19           But I would just caution you to -- you know,  
20 the opinions of some workers. And we didn't attempt  
21 to suppress the language that they chose to use. But  
22 that does not mean that that is the overall opinion of  
23 the laboratory or the government.

24           So we do owe our formal corrective action  
25 plan to the government on how we're going to address

1 the deficiencies that were noted. And then -- and we  
2 will go take aggressive action to make those processes  
3 better.

4 But quite frankly this is the type of  
5 behavior and hard self-examination that is the  
6 hallmark for a successful nuclear safety program,  
7 right, not one where we don't look or wait for  
8 outsiders to work -- look, but where we go to where we  
9 think we might have issues and look ourselves.

10 That's what we did. We found some things.  
11 We'll fix those things. But I don't think that's a  
12 sign of weakness, actually I think that's a sign of  
13 strength.

14 MR. DWYER: Okay.

15 MR. SMITH: Mr. Chairman, may I add to that,  
16 please. Kevin.

17 CHAIRMAN: Yes.

18 MR. SMITH: Mr. Dwyer, I just happened to  
19 remember it also that, on the case of the USQ, and  
20 Charlie Anderson can correct me, that it was -- that  
21 the deficiencies for the USQ process for Area G was  
22 fixed during the evaluation before it was even  
23 written. And Mr. Anderson can correct me on that.

24 But we did pull a string on that. And  
25 because it was fixed, we didn't go further. But I'll

1 defer to Mr. Anderson, if he had -- he can remember,  
2 because I don't think we have the expert here on the  
3 panel today.

4 MR. ANDERSON: Actually on the number of the  
5 issues with the facility-centered assessment, as they  
6 were being identified during the assessment, we did  
7 operability determinations on them.

8 And in some cases where there were some  
9 deficiencies, then they were fixed at that point or at  
10 least initiated to be fixed before the report came  
11 out. So not just in the USQD [Unreviewed Safety  
12 Question Determination] process but in several of the  
13 others, the criticality area and several of the other  
14 areas.

15 CHAIRMAN: Well, you know, the reason we're  
16 spending so much time on this is that this Documented  
17 Safety Analysis is the key document for facilities.  
18 When I look at the Department of Energy and especially  
19 at the Board's oversight role, nothing is more  
20 important than defense nuclear facilities. And  
21 facilities translate into licenses to operate.

22 And you're your own regulator. So you are  
23 the ones determining when these facilities are safe to  
24 operate. And we're just trying to understand your  
25 interpretation of this nuclear safety management rule

1 and its safe harbor methodology and how -- to what  
2 degree these controls need to be applied to get the  
3 mitigated dose to the public to a low level.

4           And the reason for that is that's -- that's a  
5 measurable thing to us and to I think people in this  
6 audience that they want to know and understand. A lot  
7 of this discussion about processes, you know, to me  
8 seems to be a little bit subjective.

9           And I would be more comfortable if we could  
10 just move in the realm of the numbers and see what the  
11 numbers say about the facilities, not discounting the  
12 fact that you're making -- obviously making serious  
13 efforts here on many of the facilities to get these  
14 offsite doses down.

15           And we're going to continue to work with you  
16 to try to get a definition of what a compliant DSA is.  
17 And hopefully the final result we do get will be a  
18 fairly small mitigated offsite dose. And I think we  
19 started the discussion by saying that we do have  
20 facilities at Los Alamos that do have doses that do  
21 exceed the Evaluation Guideline.

22           So with that I want to just transition to  
23 another question. And that's just about the annual  
24 update process, which is an important part of  
25 integrated safety management.

1           And obviously that's been a little  
2   challenging for the Plutonium Facility that we  
3   discussed this morning because the contractor  
4   submitted a 2008 DSA. And we were expecting to see a  
5   2009 DSA and a 2010 DSA and a 2011 DSA, and we skipped  
6   from 2008 to the 2011 model.

7           So basically -- maybe I'll start with you,  
8   Carl [Beard]. What was going on there with the update  
9   process?

10          DR. BEARD: Well, during that entire time, of  
11   course, several things were going on. We were trying  
12   to update the document itself, provide better  
13   linkages. And we did submit updates in 2009, 2010,  
14   and ultimately two in 2011.

15          So providing clarity of linkage between the  
16   hazard analysis and the control set to make more clean  
17   in terms of those linkages. And at the same time, as  
18   I indicated earlier today, we are aggressively trying  
19   to improve the safety posture within the facility.

20          So we were instituting new methods to  
21   control, new methods to protect assumptions, new  
22   methods of doing business, and physical upgrades that  
23   we were trying to roll in and did roll in in different  
24   ways to the documents during that time frame. So the  
25   challenge that we really had, both on our side and on

1 the government, was really a period of dramatic  
2 change.

3 As you're aware, Mr. Chairman, originally the  
4 annual update process was really seen as a mechanism  
5 to incorporate, you know, USQs that had been done  
6 through the previous year, not do large-scale  
7 transformation of the safety basis. But that was what  
8 we needed to do. And so that's what we have tackled.

9 We, of course, wish we had done it faster.  
10 But we believe we met our requirements by continuing  
11 to submit the updates as we went through. Every  
12 single one of those updates showed a dose reduction.  
13 As you're aware the last one is below the Evaluation  
14 Guideline. But we can -- we intend to go much farther  
15 than that.

16 So we think we've made tremendous progress  
17 since 2006, not just to the Plutonium Facility but  
18 across the site. I am actually very confident in  
19 saying that I believe our operations are safer now  
20 than they've ever been.

21 And specifically at the Plutonium Facility, I  
22 can unequivocally state that our -- both the facility  
23 posture as well as the operations with the facility  
24 are safer than they have ever been since that facility  
25 opened.

1           So I think all entities were working  
2 diligently toward a common goal. We have shared and  
3 discussed that goal with you many times. And I  
4 actually think we're actually very well aligned, even  
5 though we do discuss some of the semantics and the  
6 issues.

7           CHAIRMAN: Absolutely.

8           DR. BEARD: But we've worked very well with  
9 the area office. As they've said they have tried to  
10 force -- enforce a degree of quality and linkage and  
11 understanding.

12           That's important not just from their side but  
13 from ours in terms of the ability of the workers to  
14 use the safety basis as an operational document. And  
15 I think now you're seeing a convergence where  
16 hopefully here in the near future we'll be in a much  
17 more stable posture.

18           CHAIRMAN: So I'll probably end with you,  
19 Mr. Smith. So from the site office's point of view,  
20 what was going on with these Documented Safety  
21 Analyses that were being submitted in 2009 and 2010,  
22 before the 2011 that you finally approved, what was --  
23 what were the challenges in the process for you?

24           MR. SMITH: Well, Mr. Chairman, for me it's a  
25 little bit of history because I wasn't here. But I



1 will tell you that when I got to here a little over a  
2 year ago, I was quite surprised at how cumbersome and  
3 still hadn't gotten to the point that I was used to at  
4 other locations.

5           And so I actually -- when Mr. Vocella who is  
6 actually visiting here today, when he departed, I  
7 moved Dr. Keilers over for the very specific purpose  
8 of having an expert in place to work the improvements.  
9 I think that the -- it was so cumbersome and the  
10 backlog was so deep that things got stale, things were  
11 difficult to turn. More research was needed.

12           We had -- and so we have now allowed the  
13 contractor to help us prioritize the work and the  
14 sequence that they need things to try to achieve -- to  
15 make sure we get the fastest turn. We stick people  
16 with documents, we improve people through the process.

17           We try to turn everything in a set duration  
18 or period of time to now be able to perform and have a  
19 throughput both in the site office and through the  
20 contractor's side of the house in safety basis work.  
21 We haven't quite turned the point that we can get to a  
22 letter update level. But we are not that far away.

23           We have some issues with Area G of how we  
24 proceed there and the amount of time that area is  
25 functioning of what we do with it next and how we push

1 it forward. But for the other documents, I think that  
2 we are seeing an opportunity here to achieve the level  
3 of performance that we expect.

4 CHAIRMAN: So your goal is to be able to  
5 effectively implement this annual update process?

6 MR. SMITH: Absolutely. I have no sense of  
7 humor for anything else.

8 CHAIRMAN: Yeah. And so people understand,  
9 it should get easier as time goes on because once  
10 these facilities have what I would call compliant  
11 Documented Safety Analyses, you can actually get to  
12 the point, and I know from your experience at Y-12,  
13 where you can simply write a letter and say not much  
14 has changed, we've established a very firm, strong  
15 safety basis for this facility.

16 MR. SMITH: Yes, sir. And looking at the  
17 quality of the 2010 DSA for PF-4, granted we work  
18 through the seismic issues and what we've got coming  
19 in the pipe with CMR, we are on striking range to do  
20 this.

21 CHAIRMAN: Right.

22 MR. SMITH: I think that the 2010 from PF-4,  
23 as Dr. Beard mentioned, is a very good candidate for  
24 almost there. So I'm optimistic. But as I mentioned  
25 we really have a path forward this year that we intend

1 to really make and that we hope will make this -- the  
2 throughput and the quality matching at the same time.

3           And as I mentioned, when you have a award  
4 term measure that -- in the mix here that, if we fail  
5 to meet, that there's no grant of an extension of  
6 contract, that's how serious we are about this.

7           CHAIRMAN: Okay. Ms. Roberson.

8           VICE CHAIRMAN: Thank you, Mr. Chairman.  
9 Mr. Smith spoke in his opening statement about the  
10 challenges in the area of formality of operations as  
11 found in 2006. So I would like to ask you, Dr. Beard,  
12 if you can characterize for us your view of the state  
13 of formality of operations in engineering,  
14 maintenance, training, and conduct of ops at LANL.

15           DR. BEARD: I'll be happy to. First let me  
16 give a little bit broader background for our audience,  
17 when we say formality of ops, what exactly we're  
18 referring to. If the Board will indulge me, because I  
19 know you're very familiar with it yourself.

20           Our goal is reliable and robust operations.  
21 And no more so than our nuclear facility. It's our  
22 goal everywhere. But in a nuclear facility, obviously  
23 it takes a higher level of importance.

24           And so you can break that out into several  
25 elements. The first which we've been talking about is

1 a robust analysis of the possible hazards that are  
2 associated with those operations and what controls you  
3 need to mitigate those hazards to provide an  
4 acceptable level of control.

5 Many of the times you do that, you end up  
6 with engineered controls as we talked about. Physical  
7 systems that are in place to mitigate an accident or  
8 prevent an accident, fire suppression, ventilation, et  
9 cetera. So we need to make sure that those systems  
10 will function when we need them to function.

11 And to do that we use what we call our  
12 cognizant system engineer system, our conduct of  
13 engineering, one of the four that you mentioned,  
14 whereby we assign engineers to oversee these systems,  
15 to know their functions, to know what are the critical  
16 aspects to make sure those systems fulfill their  
17 functions, and then basically to oversee those  
18 operations on a daily basis.

19 Coupled with that obviously, if you want to  
20 maintain systems at a high degree of reliability, we  
21 have to be doing maintenance on those systems in an  
22 appropriate and timely fashion. And our conduct of  
23 maintenance which is how we do that, the quality  
24 controls that go into place in terms of the parts and  
25 the processes we use toward those equipment, and

1 those, of course, have to be linked to the engineers  
2 themselves who oversee that.

3 Training then and conduct of ops gets to how  
4 do we work within the nuclear facilities. We talked  
5 about administrative controls which are controls that  
6 depend upon people to do work in a certain way. And  
7 in order for those to be successful, we must have the  
8 people follow the rules, follow the procedures as  
9 written so we can make sure that those controls are  
10 effective.

11 That's what we refer to as our conduct of  
12 operations. And then, of course, so they know how to  
13 do that, we have to appropriately execute training and  
14 have a robust and documented training program so we  
15 make sure that we only assign appropriately people to  
16 do work. And then we are assured that they can  
17 conduct that work in a fashion that's satisfactory for  
18 successful execution.

19 We define those requirements through our  
20 conduct of training. Those elements, while some of  
21 them existed in a small form in 2006, did not exist as  
22 robust institutional programs at transition -- at  
23 contract transition in 2006.

24 So since then we've defined those programs,  
25 we have staffed those programs, and we've implemented

1 those programs site-wide. And we've made tremendous  
2 progress. However, Los Alamos is a big and  
3 complicated site. And we're far from perfect.

4           And so, while we've seen improving trends in  
5 our operations, we've also continued to identify  
6 weaknesses. We talked about the facility-centered  
7 assessments. And the facility-centered assessments  
8 which we conducted did identify weaknesses  
9 specifically in conduct of engineering, where we still  
10 have a lot of young, inexperienced engineers, not  
11 quite fully mature in truly understanding the full  
12 suite of their responsibilities that they possess.

13           We've tried to augment that through bringing  
14 in more experienced staff from our parent companies or  
15 other contract organizations to help mentor these  
16 engineers, to help augment those support staffs and  
17 make sure that we can bring them up to the level that  
18 we need. But that is an area that we still need to  
19 improve.

20           We are orders of magnitude better than we  
21 were five years ago. But we still need to improve.  
22 When it comes to our training execution, once again a  
23 similar story. We have put in better tools and  
24 processes, we have better qualifications and  
25 certifications, we have better and more effective ways

1 to check whether or not people have the appropriate  
2 training in order to execute work.

3           What we have to mature to is a better  
4 evaluation of how effective the training that we give  
5 is. Now we can prove that we train people and that we  
6 have at least evaluated the type of work versus the  
7 training required.

8           But the training only serves our purpose if  
9 it's truly effective in giving the skills and  
10 knowledge needed to the -- to workers to conduct that  
11 work. So we have to then continue that feedback loop  
12 of evaluating whether or not the training that we are  
13 delivering is being effective in producing the results  
14 and the behaviors and the execution that we would like  
15 to see.

16           And so in the criticality event that was  
17 talked about that occurred in August of 2011, where we  
18 had workers who deviated from their trained behavior,  
19 you know, that's an indication that we need to  
20 reevaluate those training processes, those training  
21 programs, and try to understand why, even though  
22 clearly the information was presented, why wasn't it  
23 presented in a way that it produced a more effective  
24 result.

25           And so once again there we have work that

1 still needs to be done. And there are other elements  
2 of our program such as configuration management, which  
3 relies on document control and records management,  
4 where we can clearly define the technical  
5 configuration of the engineered systems that we rely  
6 on, we can clearly control the configuration of the  
7 procedures that we rely on, their linkage to the  
8 safety basis documents.

9           Once again we've seen dramatic improvement in  
10 those processes. But we're still finding deficiencies  
11 and breakage in some of those linkages. So it's a  
12 continuous improvement of process. It's actually  
13 never over because you can always do better. And so  
14 we're not satisfied where we're at.

15           We still see too many operational upsets,  
16 although they tend to be of decreasing severity. But  
17 we just have to continue to reinforce those processes  
18 and be willing to look at both the processes as  
19 they're defined, the processes as we execute them, and  
20 listen to our workers.

21           I mean that's one of the things that we've  
22 been trying to do. And the recent criticality event  
23 was a good example where we brought a group of workers  
24 together led by one of our managers within the  
25 facility to take a look at the whole criticality



1 program within the facility and tell us, okay, we know  
2 we have the major elements here, but what are we  
3 missing around the edges, what are we missing in the  
4 details that is keeping people from executing this  
5 consistently and reliably on a day-to-day basis.

6           You know, when you look at the opportunity  
7 for errors, there's many. But we know we can hit very  
8 high levels of performance. We were able to do that  
9 when I was at the Pantex facility and we implemented  
10 all the same type of programs. And I'm confident we  
11 can do it here. But we are still in that process of  
12 maturity because of the complexity and the nature of  
13 the site.

14           VICE CHAIRMAN: Do you have metrics that you  
15 use to determine where you are in that line between --

16           DR. BEARD: We do. We track a number of  
17 metrics to different levels. So at the executive  
18 level, we track off-normal events. We track them in  
19 several ways. We track them in terms of what kind of  
20 events raise to the level that we're required to  
21 report them to the Department of Energy, ORPs [Office  
22 of River Protection] reportable events.

23           And then we track the ratio of events that we  
24 critique, self-evaluate, that don't rise to that level  
25 to make sure that what we're seeing is a high level of

1 attention on low-level events that don't rise to the  
2 higher levels so we can find and fix systemic problems  
3 before they result in off-normal events and more  
4 severe occurrences.

5 We also track the mean time between  
6 significant events to see if we're continuing to get  
7 progress in terms of a lower frequency of events. And  
8 then, of course, for each event we evaluate the  
9 various causal analyses and the different aspects.

10 And -- and then -- and then at the different  
11 operational levels, they track all kinds of metrics,  
12 everything from things like glovebox breaches and  
13 contamination events in the Plutonium Facility to  
14 other operational upsets across the site.

15 So the first ones I mentioned at the  
16 executive level are a part of what we call our  
17 executive scorecard, which the area office has  
18 visibility and which we can be happy to share with you  
19 folks as well.

20 VICE CHAIRMAN: Okay.

21 MR. SMITH: May I add to that, please.

22 VICE CHAIRMAN: I was going to come to you.  
23 Certainly. Go ahead.

24 MR. SMITH: Two pieces. First of all  
25 Dr. Beard and I sat down with all these dashboard

1 metrics to see how we're going to have what's  
2 transparent, what's leading indicators, whether it met  
3 all the things that I think that are valuable.

4 VICE CHAIRMAN: Your speaker.

5 MR. SMITH: Sorry. But we sat together and  
6 plotted out how to make sure that we have a  
7 comprehensive, effective suite of metrics that show it  
8 transparently to the site office, that they use to  
9 manage and make their decisions, that they don't  
10 create something special, that we see the actual data,  
11 the same data they use to decide how they're doing.

12 And so we have spent many times sorting  
13 through those metrics, deciding on the leading  
14 indicators, and trying to ensure that we have a model  
15 for the Department.

16 I was going to suggest, since we are talking  
17 about formality of the operations and the effort we're  
18 going through right now on both sides of the house,  
19 that you might take just a minute and let Mr. Krepps  
20 explain where we are with readiness and the efforts,  
21 if that's -- if you can indulge me for just a second.

22 VICE CHAIRMAN: Yes.

23 MR. KREPPS: While Mr. Smith brought that up,  
24 you know, I think establishing readiness is one of the  
25 disciplines that really should fall under formality of

1 operations. And it dovetails quite nicely with those  
2 that we just discussed.

3           And it really is part of our integrated  
4 safety management program. And basically ensuring  
5 prior to starting up any new activity, starting up any  
6 new facility, we go through a rigorous program to  
7 ensure that that activity, that facility, is ready to  
8 start up effectively.

9           I would say in the -- in the not too distant  
10 past, we have had some false starts, if you will, in  
11 that readiness process. And where we were getting to  
12 the point where we were using readiness activities to  
13 get the facility ready. And the goal is that you  
14 would be basically ready to start before you entered  
15 into that process.

16           So some of the improvements that we've seen  
17 the contractor make over the past several months, and  
18 I'll point out specifically down in Area G, is that  
19 they have implemented these red teams or readiness  
20 teams, where they will go out and at cost to them  
21 bring in some outside experts to review activities, to  
22 review the hazard analysis, to review the controls  
23 that have been put in place to establish readiness  
24 even before we get into the formal readiness process.

25           In addition to that, they have also

1 established a senior readiness review board and really  
2 look closely and scrutinize every step of the process,  
3 when they go from their management self-assessments  
4 and then into their contractor readiness assessments.

5           And so we've been working with the contractor  
6 in -- to making a more robust readiness program and  
7 most specifically making sure that those facility's  
8 activities are ready to start up safely even before we  
9 entered into that process.

10           MR. SMITH: If I might, we've gone from a  
11 program that was considered poor to one that is now  
12 approaching best in class.

13           CHAIRMAN: Okay. Ms. Roberson. And then  
14 we'll go to Mr. Bader for a question.

15           VICE CHAIRMAN: Yeah. Okay. I think just my  
16 last question is probably to you, Mr. Smith. Both you  
17 and Dr. Beard mentioned your communication following  
18 your organization's assessment of some occurrences in  
19 the Plutonium Facility.

20           I guess the question would be -- and either  
21 you or Dr. Beard. Obviously your job is to provide  
22 oversight, safety oversight at the site. What does it  
23 tell you about maturity of implementation that you  
24 raised this?

25           MR. SMITH: I think the best way to

1 characterize this is that we have in the last year  
2 developed an incredibly quick communication and full  
3 transparency and full trust. And if something  
4 transpires that I haven't heard from Dr. Beard  
5 personally, if it's any significant, then I would call  
6 him.

7           And between the two of us, these kinds of  
8 things -- and we have put the emphasis on  
9 self-reporting. And we have encouraged facilities to  
10 reward self-discovery and self-reporting. And we have  
11 encouraged that in our facility reps and our  
12 representatives that are out in the field.

13           And I think that what we're seeing is this  
14 extreme focus now on rewarding that behavior is  
15 generating a little bit of a spike in actual  
16 identification of things, which is good, whether it be  
17 engineering, whether it be conduct of maintenance,  
18 both on the federal side and on the contractor side.

19           And I think that we are working through a  
20 period of time that will lead to excellence on the  
21 back end. And so I assess that we are comfortable we  
22 have the formality of operations. What we need to do  
23 now is ensure that it is there and we don't have to  
24 worry about it, losing it, or getting tarnished  
25 over -- for lack of attention.

1           It's now the integrity of doing the right  
2 thing or doing it right when someone is not watching.  
3 And so my assessment is there's still too much  
4 turbulence. We're not through the knothole yet. But  
5 we are on our way. And we have the perspective and  
6 the team to do that. And I'll defer to Dr. Beard.

7           DR. BEARD: Yeah. I would just reiterate,  
8 both with the facility-centered assessment as well as  
9 the criticality event, those were self-reported. All  
10 right.

11           So the criticality event was self-reported by  
12 the workers involved. The facility-centered  
13 assessments were our assessments, even though they  
14 were shadowed by the government. And in both of those  
15 cases, we maintained very close contact with the area  
16 office.

17           Now, the area office does exercise oversight.  
18 So, for instance, in the facility-centered assessments  
19 of -- even though the -- you know, through the  
20 findings, after many -- after discussions the -- Kevin  
21 [Smith] made clear that -- that, you know, look, that  
22 they needed to go exercise their oversight and go on  
23 record to make sure that they could, you know, enforce  
24 the appropriate follow-up to the findings that we had  
25 found because that's part of their job. And I

1 understand that.

2           Now, that doesn't mean that we find  
3 everything internally. Once again a lot of the  
4 maturity in the systems and engineering program shows  
5 up when the area office is exercising its oversight  
6 and they're evaluating either documents we produce or  
7 elements of condition in the field.

8           And they find things that quite frankly we  
9 should have. We're getting better at that. It's a  
10 maturity level in terms of our engineering expertise  
11 at the site. Once again we're imminently better than  
12 we were five years ago.

13           But, you know, we have to get to a point  
14 where we find those things first. That doesn't mean  
15 we won't find things. The, you know, one continuity  
16 in terms of being in operations is you are always  
17 going to find things.

18           But we are the ones that need to find things.  
19 We need to find them first. We need to communicate  
20 those effectively with the government. I think we've  
21 come a long way down that path, but we have a ways to  
22 go.

23           VICE CHAIRMAN: Okay. Thank you. Thank you.

24           CHAIRMAN: Mr. Bader. And then I would have  
25 a question. Go ahead.



1           MR. BADER: Mr. Beard -- Dr. Beard, excuse  
2 me, Carl. I've been just noting some of your  
3 statements as you went along. And if I've written  
4 these down correctly, you said the facilities are  
5 safer now than they have been since the facilities  
6 were opened, workers are comfortable using the safety  
7 bases, we see operational upsets decreasing in  
8 severity.

9           You're basically painting a picture that  
10 things could be better, but that they are improving  
11 fairly substantially and they're not bad; is that a  
12 fair summary of what you're trying to say?

13          DR. BEARD: Yeah. I think I could definitely  
14 defend that we're -- we have substantially improved  
15 in -- since 2006. I will definitely tell you that  
16 they can and need to be better. And I will leave the  
17 subjective evaluation of not bad to any individual's  
18 evaluation right now.

19          So we do have a high degree of standards. I  
20 am not satisfied. I will not be satisfied until we  
21 can, you know, match some of the achievements that  
22 I've been able to achieve elsewhere in terms of, you  
23 know, length of operation without upsets, a number of  
24 industrial type injuries and accidents that we have,  
25 things that really do hurt our workers, and our robust

1 execution of our safety basis and controls, including  
2 getting the overall offsite doses down well below the  
3 Evaluation Guideline. So --

4 MR. BADER: All right. I'm trying to  
5 evaluate that versus the words that I see in  
6 Mr. Smith's letter of September 16th to Dr. McMillan.  
7 And I'll quote it. "Examples of such problems that  
8 LASO has observed include inadequate processes for  
9 self-identifying and sustainably addressing issues,  
10 inadequate work package planning, not identifying all  
11 job hazards, inadequate closure of issues, lack of  
12 system engineering processes and safety basis  
13 knowledge, inability to execute procedures as written,  
14 workers accepting inadequate procedures or not  
15 following procedures, and management/supervisory  
16 actions not" -- excuse me. "That rationalize the  
17 status quo rather than identifying root causes and  
18 fixing the problems."

19 That to me is a more sober assessment. How  
20 do you make the bridge between your positive --  
21 basically positive assessment and this?

22 DR. BEARD: Well, my answer is the devil is  
23 in the details. Right. So, you know, you can walk  
24 into a facility and you can not use a procedure at all  
25 and totally ignore things. And that's a huge problem.

1           You can try to follow a procedure or follow a  
2 procedure and yet skip a step or do steps out of  
3 order, and that's still inappropriate in our world.  
4 But the two are different grades of the same problem.

5           So I would tell you that, while you find  
6 those type of problems, you find different grades in  
7 the same problem. Now, it's different at different  
8 facilities.

9           And what you also find is after 2006, we very  
10 cognizantly put most of our talent at the high-risk  
11 facilities, the Plutonium Facility, at the CMR  
12 facility. We see more maturity in those facilities.

13           They're not without issue. Obviously the  
14 criticality event of August indicates that. But  
15 generally we're more mature in those facilities than  
16 we are in some of the lower risk facilities such as  
17 the waste facilities. So there's a maturity --

18           MR. BADER: But my -- my point is this. This  
19 is aimed at the workers. These items that have been  
20 mentioned are basically or primarily the conduct of  
21 work by the workers. And that's the most essential  
22 thing that has to be -- I mean when you have workers  
23 working properly and effectively implementing ISMS  
24 [Integrated Safety Management System], you have a safe  
25 facility.

1           So this to me is the most basic rudimentary  
2 evidence of how the facility is running. It would  
3 suggest to me that you have further to go than you're  
4 expressing. Is that fair?

5           DR. BEARD: Well, I believe I'm adequately  
6 expressing my personal evaluation. I agree we have  
7 further to go. But once again, if you really look at  
8 a lot of our worker behavior, they are  
9 self-identifying the problems. We are evaluating very  
10 low-level events. They are trying to execute the  
11 work.

12           Now, it is our job to provide systems,  
13 processes, and the appropriate training to enable them  
14 to be successful in doing that. All right. But I  
15 actually don't have -- perceive a large problem with  
16 what I would call "attitude" with our workers.

17           The one -- actually the issue I have with  
18 some of the area office opinion is the idea of the  
19 complacency of our workers. I actually don't see a  
20 lot of complacency of our workers.

21           But that doesn't mean that we're perfect and  
22 that doesn't mean that we don't make mistakes and that  
23 doesn't mean that we don't -- we can't improve to much  
24 higher degrees of performance, because I know we can  
25 because I've been in places where we've done it.

1           But I also know where we've been. I know  
2 where we were in 2006. I know how far we've come.  
3 And so if it's -- if it's a glass half empty or half  
4 full, I guess I do choose to look at it as half full.  
5 But I do believe we're safer now than we ever been. I  
6 mean I truly believe that. And I think the data shows  
7 that. But we still have work to do.

8           MR. BADER: Let me shift to Mr. Smith.

9           MR. SMITH: Thank you, Mr. Bader. And I  
10 appreciate that. (Laughter.)

11          MR. BADER: Let me ask my question first.  
12 Mr. Smith, well, do you feel that this is an adequate  
13 response in terms of the letter that you wrote?

14          MR. SMITH: I'm going to give Dr. Beard the  
15 benefit -- again he's only been in his job a couple  
16 months. And his primary focus has been PS -- PF-4.  
17 And I will agree with his comments on the primary  
18 high-hazard facilities of CMR and PF-4.

19          And I agree his comments are accurate, with  
20 the exception of -- that you're well aware, we're  
21 working through some infractions in safety. So I  
22 agree, his comments are accurate with respect to the  
23 too big and too -- and two highest risk facilities.

24          Most of the turbulence comes from WETF, comes  
25 from WCRRF, comes from Area G and those facilities.

1 And they're ones that Carl has split responsibility  
2 for with Paul Henry. And that there are -- there are  
3 activities that occur.

4 Let me put this way. I come from a different  
5 set of sites. And I have a different level of  
6 expectation of what I consider to be the appropriate  
7 level of nuclear operations in a nuclear turbulence  
8 and deviations.

9 And so I am, if you will, bringing with me  
10 that bias and that format for a much higher set of  
11 conduct of operations. And I have articulated that to  
12 Dr. McMillan. And I have charted with Dr. McMillan a  
13 course of how do we get the level of -- as again I  
14 prefer the term turbulence down to an appropriate  
15 level that is much closer to what I would expect at  
16 any nuclear facility.

17 So I can bridge the gap between where  
18 Dr. Beard is and his comments. But he also --  
19 Dr. Beard knows very well that we are trying to focus  
20 on the entire installation and trying to get  
21 everything back up to the -- to a level of standard  
22 that we can be comfortable with, that it's  
23 self-identified, that engineering is competent, that  
24 systems engineers know their systems, and that there's  
25 no question across the board.

1           Now, we have experts, individuals, that can  
2 handle all of these individual things. But the bench  
3 strength needs to be there. I mean, if so and so has  
4 got a cold for the day and gone, then number two  
5 better be able to pick up the ball and be able to run  
6 with it.

7           MR. BADER: I have no argument, in fact, that  
8 would support Carl's thrust that things are better.  
9 But I get concerned when the statements are too  
10 optimistic and I prefer your assessment of the  
11 statements. Is this -- I mean I took your letter as a  
12 very serious letter.

13           MR. SMITH: Yes, sir.

14           MR. BADER: And are you -- I'd like your  
15 assessment of how you feel progress is being made  
16 against the letter that you wrote.

17           MR. SMITH: It's a fairly young letter. And  
18 I'm waiting for some -- the first set -- the second  
19 set of feedback on that letter. So it's a fairly  
20 young letter.

21           But I will tell you that I believe that there  
22 are pockets of excellence at Los Alamos. But you  
23 bring in 500 post-docs and throw them in the  
24 facilities every year and you get a training problem  
25 of immense proportion.

1           But I believe that the -- that we have had a  
2 level of turbulence that we've been accepting for a  
3 long period of time that doesn't meet my standards.  
4 That I would consider safe and effective and make me  
5 sleep better at night.

6           And so I stand beside my letter verbatim.  
7 And I will say that I will agree with Dr. Beard. I  
8 have clearly seen improvement in a number of areas.  
9 But it's not where I consider to be quite right yet.

10           CHAIRMAN: We're going to have to move on. I  
11 would just make a final statement and we'll move on.  
12 I'll tell you, Joe, which question we're going to.  
13 But I saw the letter as very harsh. And it's not the  
14 first time that NNSA has written a fairly harsh  
15 letter.

16           And my concern is that I know that LANS is  
17 trying very hard. And I don't need a response, this  
18 is just expressing my opinion. But the weaknesses --  
19 corrective actions aren't really taking hold and the  
20 lessons aren't being learned.

21           And the theme of these letters seems to be  
22 that these things are happening again and again and  
23 again. And then it gets back to the issues of what  
24 are you measuring. I know you guys are good at  
25 metrics.



1           But what are you measuring and can you make  
2 those metrics better so that you can maybe head off a  
3 few of these things and not have recurring events  
4 happen again and again. But -- and you can have a  
5 very short response. We do have to move on.

6           MR. SMITH: It will be short, sir.

7           CHAIRMAN: Yeah.

8           MR. SMITH: That was the purpose of the  
9 letter, was to let it very be clear that we -- we  
10 expect to make that standard, to make that turn, and  
11 not have to go back again.

12          CHAIRMAN: Okay. Thank you. And, Joe, I  
13 think we're running out of time. So do you want to --  
14 we want to shift gears now to look at these aging  
15 facilities and the new ones that are going to replace  
16 them. So I'm looking at number nine here, moving on  
17 to that.

18          MR. BADER: Let me see if I can't condense  
19 this down a little bit. CMRR is going to be located  
20 in Tech Area 55 adjacent to the existing Plutonium  
21 Facility. How do seismic structural aspects of  
22 these -- basically the design for CMRR differ from the  
23 Plutonium Facility? Kevin.

24          MR. SMITH: Well, sir, I'm not an expert  
25 in -- in clearly being able to define the two. I know

1 we have done literally a thousand bore samplings in  
2 that area to ensure that we've got and understand the  
3 integrity of that particular environment and that the  
4 CMRR is really going to be the safety and design  
5 feature that the Department wants. I'll defer to  
6 Dr. Keilers who worked the PDSA [Preliminary  
7 Documented Safety Analysis].

8 MR. BADER: No. I think -- I think where I'm  
9 trying to go with this, what steps are being taken in  
10 the CMRR design to ensure that the facility meets  
11 seismic safety requirements? That's really the heart  
12 of the -- -

13 DR. KEILERS: Mr. Bader, if I may, I will try  
14 to answer the question to your satisfaction here. The  
15 seismic structural design for CMRR is basically based  
16 on modern nuclear safety standards, modern national  
17 consensus building codes, takes advantage of what is  
18 known now on the response of structures during a  
19 seismic event.

20 It's based on the 2007 probabilistic seismic  
21 hazard analysis that we talked about this morning and  
22 which is -- in its way it's based on the prehistoric  
23 earthquake records that Mr. Goen discussed this  
24 afternoon when we were on topic one.

25 So you compare that to PF-4. PF-4 was

1 designed in the early 1970s to the ground motion as it  
2 was understood at that time, where they did not have  
3 the benefit of the prehistoric records, they could  
4 only consider the last few -- last couple hundred  
5 years the historical record.

6 And so -- and in the early 1970s, the codes  
7 were just then beginning to incorporate more modern  
8 knowledge on the earthquakes.

9 So if you look at the CMRR design and the  
10 design approach that was taken -- that is being taken,  
11 the intent is to keep the design entirely elastic,  
12 which is one big difference from where we -- and so --  
13 and as a result of that, it has a great deal of  
14 concrete, it has a lot of steel.

15 The other aspect is if it were to for some --  
16 you know, if the loads were to exceed what is  
17 currently -- it's being designed for, it has a great  
18 deal of detailing in the steel reinforcement that is  
19 able to take -- to absorb energy plastically, ductile  
20 detailing, which is also something -- a modern aspect  
21 of design that they did not have -- or they did not  
22 consider when they were developing the PF-4 design.

23 MR. BADER: Is it fair to say that CMRR is  
24 going to meet the requirement of a small fraction of  
25 the Evaluation Guideline?

1 DR. KEILERS: That is my understanding, sir.

2 DR. BEARD: Yes, yes.

3 MR. SMITH: Absolutely.

4 MR. BADER: Thank you. That was a clean and  
5 crisp answer.

6 CHAIRMAN: For the record Mr. Beard said the  
7 answer -- Dr. Beard said the answer is yes. All  
8 right. Did I get that -- did I hear that correctly?

9 DR. BEARD: Yes, yes, that is correct,  
10 Mr. Chairman.

11 CHAIRMAN: All right. We're going to move  
12 on. Jack.

13 DR. MANSFIELD: Okay. Dr. Beard, I'm --  
14 we've really been quite satisfied with what you have  
15 done with the old CMR facility, from one of the  
16 highest risk facilities to one that meets the  
17 Evaluation Guidelines. And I just have a few softball  
18 questions I hope about that.

19 The -- you know, we want us -- want you to  
20 get as low as possible. And what I'm asking is what  
21 possibilities there are -- are there for  
22 dispositioning further material either -- either to  
23 disposing of it or storing it someplace else?

24 DR. BEARD: So as you're aware there's a  
25 couple of major operations that actually affect the

1 amount of material that we have to have in the old CMR  
2 facility.

3           One is to clean up some legacy vessels that  
4 we have that has nuclear material. But that actually  
5 will result in a bit of a spike of nuclear material  
6 that's present at the facility. And as we've agreed  
7 to before, actually restaging how we did that to make  
8 sure that we didn't have more material so we would  
9 exceed the guidelines was one of our key strategies.

10           So we expect to get over those operations  
11 here in the next few years, and then those will go  
12 away. And then the remaining operations will be our  
13 material characterization and annual chemistry  
14 operations that support the broader suite of actinide  
15 operations that we do.

16           As you're aware we do very extensive  
17 analysis of which ones that we could relocate to the  
18 existing Plutonium Facility or are in the process of  
19 relocating some of those, such as the P [Plutonium]  
20 238 analysis, as well as the sample management  
21 effort -- applications. So we're only sending over  
22 the minimum amount of material we have to do the  
23 operations.

24           DR. MANSFIELD: And just in time.

25           DR. BEARD: Just in time, right, realizing

1 that that does require a movement down the road and  
2 there are some logistic issues here.

3           Also our latest facility, the Radiation  
4 Laboratory and Utility and Office Building, the RLUOB  
5 [Rad Lab/Utility/Office Building], we took beneficial  
6 occupancy. We'll begin to outfit those laboratories.  
7 Even those are very low-level material laboratories  
8 that will still allow us to also relocate some other  
9 operations.

10           So we'll continue those evaluations. Part of  
11 it will depend upon the overall programmatic  
12 requirements. We will be in -- at least I'll say the  
13 projected programmatic forecast of the next, you know,  
14 three to five years is lower than we have been.

15           So that will help in terms of the amount of  
16 material that we'll go to see more. But we'll have to  
17 continue to evaluate the options for minimizing what  
18 we have to do to that facility until the replacement  
19 facility is available.

20           DR. MANSFIELD: And you expect, when the  
21 Bolas program is finished, you're going to see a step  
22 function down --

23           DR. BEARD: Yes.

24           DR. MANSFIELD: -- in material-at-risk.  
25 That's what -- you can't evaluate what that is yet,

1 can you?

2 DR. BEARD: Well, we have those projections.  
3 I mean so we know the material that's -- it's in  
4 there. And then we know -- we do know those step  
5 functions. I don't know them off the top of my head,  
6 but we do have --

7 DR. MANSFIELD: And my last question is that  
8 this is even harder, moving the people out. You know,  
9 a good -- a large contributor to the risk in our view  
10 is the fact that there are so many people who work in  
11 the building that don't have to. What plans are there  
12 to try to get people out of there?

13 DR. BEARD: Well, we've tried to minimize the  
14 number of people that work in that facility and we're  
15 down to only about 100. So I don't think we have a  
16 large number of people there that don't have to be  
17 located in the CMR.

18 That was an effort to several years ago. As  
19 you know we've closed -- really stopped operations in  
20 three of the wings. And so we only have three  
21 remaining. And we only conduct the operations that we  
22 have to conduct in that facility with the staff that's  
23 required to do those operations.

24 DR. MANSFIELD: Okay. So it's not a problem  
25 you can solve?

1 DR. BEARD: Well, we're cognizant of it. We  
2 intend to continue to minimize the personnel that have  
3 to operate in that facility going forward. So I don't  
4 see large changes until we get the replacement  
5 facility. But that does not mean we will not continue  
6 to try to reduce it.

7 CHAIRMAN: We're going to go about ten more  
8 minutes and then we're going to begin the public  
9 comment. Did you have an additional question?

10 MR. BADER: Yeah. I wanted to follow up on  
11 what Dr. Mansfield just said. If you remember, when  
12 we were doing a walk-down we had at CMR, we noticed  
13 people working in offices there. And we had a  
14 discussion on reducing the people using offices  
15 when -- when possible.

16 You met -- with RLUOB now opening, and my  
17 understanding is people are occupying office space now  
18 in RLUOB, are you making a concerted effort to look  
19 and be sure that people that can be moved out of the  
20 offices in the CMR are being moved out? I mean  
21 everybody likes a nice convenient office right near  
22 where they work. So you get resistance even though  
23 the building is not the building I would want to work  
24 in.

25 DR. BEARD: Yeah. I'm not sure we get a lot



1 of resistance to moving into the nice offices of the  
2 RLUOB. So we're just now taking beneficial occupancy,  
3 just now starting to move people into RLUOB. We have  
4 actually -- there's a whole set of dominoes so to  
5 speak, because we have people who are replaced from  
6 CMR, we have other operational people that actually  
7 need to be in RLUOB to support those operations.

8           So the simple -- the simple answer to your  
9 question is yes, we continue to evaluate that. I  
10 just -- you know, I don't know that we're going to be  
11 able to impact a large fraction of the remaining  
12 workers in the CMR.

13           MR. BADER: I've seen your plot of people  
14 that you sent us versus time that are housed in CMR.  
15 And even though it may not be a large number, it would  
16 still be good to get as many people out of there as  
17 often as possible, correct?

18           DR. BEARD: Yes, I agree.

19           MR. BADER: Good.

20           CHAIRMAN: Let me kind of end the  
21 questioning. And I'll turn to other Board Members, if  
22 they have one final question, and talk a little bit  
23 about Area G. Maybe Mr. Anderson and I can chat a  
24 little.

25           Obviously a very challenging area for you. A

1 lot of transuranic waste in Area G and a lot of  
2 pressure, a lot of mission pressure. There are  
3 commitments to the state and so on and so forth.

4           What's your perspective on cleaning up Area  
5 G, do you need new capabilities to be able to  
6 effectively manage getting that transuranic waste off  
7 of the hill there and down to WIPP?

8           MR. ANDERSON: Actually we have been bringing  
9 in some new capabilities. We've just started the  
10 high-energy RTR [real time radiography] this week and  
11 run several of the standard waste boxes through  
12 that -- through that capability.

13           We are in the process of upgrading our -- our  
14 fiberglass reinforced box remediation from a less than  
15 Haz Cat 3 [Hazardous Category 3] quantity to the  
16 larger, you know, Haz Cat 3 quantities. We have a  
17 couple of other capabilities that we do need to bring  
18 online additional of the fiberglass reinforced box  
19 remediation and the stone 375, but in one of the  
20 domes.

21           So those capabilities. You know, we've  
22 brought a series of those on in the last six months.  
23 And we have a few more to bring on here in the next  
24 year. And that will help us to accelerate the removal  
25 of that risk, that waste from Los Alamos.

1           CHAIRMAN:  What lessons have you learned  
2 looking across the complex?  I mean DOE always talks  
3 about lessons learned.  So maybe I'll ask you, have  
4 you been looking across the complex at the cleanup of  
5 transuranic waste and seen any ah-ha's, any things you  
6 might learn that would help you or insights you might  
7 gain at Los Alamos?

8           MR. ANDERSON:  We've actually seen some and  
9 felt a few.

10          CHAIRMAN:  Okay.

11          MR. ANDERSON:  For one thing some of the --  
12 we've tried to use what's been used across the  
13 complex.  In a couple of cases there, as we worked  
14 through the safety analysis, we realized that other  
15 sites have had the benefit of being several miles from  
16 the boundary or from the public.  So we've had to  
17 modify or do some additional work.

18                 Our sole characteristics, things like that,  
19 it's been a little harder to just take a capability  
20 and plop it down, if you will.  And Area G doesn't  
21 always work.  So we've had to spend a little bit of  
22 time to adjust that and make those adjustments.

23                 But we've worked through a lot of those  
24 problems here in the last two years.  We'll have a  
25 drum venting system up soon and a number of the

1 capabilities, CCP [Central Characterization Project]  
2 capabilities and remediation capabilities.

3 WCRRFs, you know, we had a number of troubles  
4 here in the past year. We worked through that on  
5 formality of operations. It's remediating well. This  
6 last year we shipped 171 shipments to WIPP.

7 One of the things we ran in there is we had  
8 to increase some of our equipment capability at RANT.  
9 I mean we just -- literally we wore the crane out,  
10 some of the components of the crane. So we've had  
11 to -- our system engineers have had to get in there  
12 and say you can't just look at history in using some  
13 of this equipment at a lower level.

14 We've turned up that level. So we're having  
15 to increase them for maintenance. And again getting  
16 out and talking with the other sites that are doing  
17 transuranic waste for how to accelerate this or avoid  
18 some of the pitfalls that they have run into.

19 CHAIRMAN: Now, one of the things we've seen  
20 across the complex and I would caution you with is we  
21 have seen that the cleanup of transuranic waste is  
22 becoming more and more challenging, that at many sites  
23 the easy transuranic waste has been taken care of and  
24 repackaged and sent to WIPP; but that the integrity of  
25 what remains, in your case perhaps what's below ground

1 as opposed to what's above ground or what's in some of  
2 those silos, whatever it is, becomes more and more  
3 challenging.

4           And very often sites in the complex have been  
5 forced to slow down, even stop operations at Idaho.  
6 And they've had a lot of problems at Savannah River  
7 and other places. And I would just caution you. I  
8 know you've got a tough mission, an aggressive  
9 mission.

10           But we've talked about the need for safety.  
11 And I just think that these operations, especially  
12 those you're going to perform at Area G, are going to  
13 be very challenging for you.

14           MR. ANDERSON: We acknowledge that. There  
15 are some differences that actually are in our favor.  
16 The -- some of the below-grade waste here at Los  
17 Alamos is not as deteriorated as some of those  
18 containers in other areas.

19           We are tackling a lot of our drums that have  
20 integrity questions and dealing with those now. So we  
21 are repacking, you know, in overpacks and working  
22 through that. You know, a lot of that goes through  
23 WIPP in that -- I mean WCRRF in that respect.

24           So, you know, in some cases it's a little  
25 more difficult and in a few cases here, you know, our

1 waste -- our waste characteristics are a little bit  
2 more straightforward.

3 CHAIRMAN: Any additional questions? All  
4 right. Jessie, Ms. Roberson.

5 VICE CHAIRMAN: Mr. Chairman, I think I have  
6 a couple of yes/no questions so I'll be quick.

7 CHAIRMAN: Great.

8 VICE CHAIRMAN: Dr. Cook, is it still NNSA's  
9 expectation that its sites have a strong integrated  
10 safety management program as a key component of a  
11 safety infrastructure?

12 DR. COOK: Absolutely.

13 VICE CHAIRMAN: Mr. Smith, are you planning  
14 an ISM [Integrated Safety Management] verification in  
15 the near -- in the not so distant future for Los  
16 Alamos?

17 MR. SMITH: A dedicated separate one, no.  
18 But I do it almost every day on every activity and  
19 every deviation. We may do it at the future. I'm not  
20 sure yet.

21 VICE CHAIRMAN: Right now you're not  
22 planning --

23 MR. SMITH: A separate, yes. We'll get the  
24 annual verification. But I'm talking about a separate  
25 outside piece. Not right now. I don't think I need

1 it.

2 VICE CHAIRMAN: I'm sorry. You're not  
3 planning an annual verification?

4 MR. SMITH: We are planning an annual.

5 VICE CHAIRMAN: You are. Okay.

6 MR. SMITH: But I'm not planning an outside  
7 piece.

8 VICE CHAIRMAN: Okay. Okay. The annual  
9 review. Okay.

10 CHAIRMAN: Is that it? Well, I guess Los  
11 Alamos is -- has the challenge being the site in the  
12 complex that has really most of the facilities that do  
13 exceed the Evaluation Guideline right now and many  
14 facilities that need to be replaced as we talked about  
15 in our comments with new modern facilities.

16 And the Board has expressed this opinion many  
17 times. This gap between the continued operation of  
18 these aging facilities and when the new ones are going  
19 to come online is something we're continuing to  
20 monitor. I know that you are as well.

21 And there may come a point when some of these  
22 facilities may need to be closed. For example, CMR  
23 really was originally planned to only operate through  
24 2010. And it will be extended.

25 So we'll work with you on that. This aging

1 infrastructure is a challenge. And hopefully, you  
2 know, I know you're monitoring it carefully. And I  
3 think it's going to force some tough decisions in the  
4 future. But we'll be looking at it with you. Thanks.  
5 Great.

6           So I would like to thank the panel very much.  
7 We do have a lot of public comments that we'd like to  
8 get to. Dr. Cook, thank you once again very much. I  
9 know you're very busy. Mr. Smith, Dr. Keilers,  
10 Mr. Krepps, Dr. Beard, and Mr. Anderson, thank you  
11 very much, appreciate it.

12           So at this time it's the Board's practice and  
13 as stated in the Federal Register notice, we will  
14 welcome comments from interested members of the  
15 public. A list of those speakers who have contacted  
16 the Board is posted at the entrance to this room.

17           We have generally listed the speakers in the  
18 order in which they have contacted us or, if possible,  
19 when they wish to speak. I will call the speakers in  
20 this order and ask that speakers state their name and  
21 title at the beginning of their presentation.

22           There was also a table at the entrance to  
23 this room with a sign-up sheet for members of the  
24 public who wish to make a presentation but did not  
25 have an opportunity to notify us ahead of time. They



1 will follow those who have already registered with us  
2 in the order in which they have signed up.

3 To give everyone wishing to make a  
4 presentation an equal opportunity, we ask that  
5 speakers limit their original presentations to five  
6 minutes. The Chair will then give consideration for  
7 additional comments should time permit.

8 Presentations should be limited to comments,  
9 technical information, or data concerning the subjects  
10 of this public meeting and hearing. The Board Members  
11 may question anyone making a presentation to the  
12 extent deemed appropriate.

13 The first speaker in this evening's public  
14 comment session is Mr. Greg Mello. Please state your  
15 name again and affiliation.

16 MR. MELLO: Thank you very much. My name is  
17 Greg Mello, I'm with the Los Alamos Study Group.  
18 Thank you again for having this meeting and for your  
19 professionalism and continued independence. It was a  
20 wonderful hearing. And we look forward to the  
21 follow-up that will come from it and hope that the  
22 Board and the NNSA will continue to make very strong  
23 strides toward increasing safety at Los Alamos.

24 I believe that I have -- I am seeing an  
25 improvement in the safety culture at Los Alamos. It's

1 hard to tell for sure. But I think there is some  
2 improvement. And I'll return to that in just a  
3 second.

4 I want to emphasize the gap that you  
5 mentioned at the very last, the gap between the older  
6 facilities which are unsafe and the new facilities  
7 which are meant to replace them.

8 This gap can expand to a long period of time  
9 because of contingencies in budget, contingencies in  
10 planning, the planning fallacy well understood in just  
11 about every field. We all face it in our work.

12 And I was pleased to hear some of the  
13 questions from the Board about how to reduce the  
14 hazards in the existing CMR building. As we look at  
15 this chasm looking forward, it's going to be a long  
16 time before -- even if -- before the CMRR nuclear  
17 facility is completed, even if it is completed, but  
18 as -- it will be really a whole generation of workers  
19 that will be working in the old CMR building from the  
20 time that the CMRR building was conceived.

21 So we're talking about a quarter of a century  
22 almost. So it's a long time to wait. And I beg the  
23 Board to work on increasing awareness of how to take  
24 interim steps in the meantime to increase safety,  
25 because the full modern solution may really not

1 appear. All right.

2           We need more transparency. This is a theme  
3 that underlies a lot that's going on. And we really  
4 appreciate this hearing. But it's difficult to  
5 maintain and -- to establish and maintain a safety  
6 culture without that kind of transparency.

7           It's great to have a conversation between the  
8 Board and the site contractor and the NNSA, but it's  
9 really not enough. We hear that the contract is  
10 enforcing safety. But the contract is not available  
11 to the public.

12           We have a secret contract, in effect, because  
13 of the operative part, the PEPs [Project Execution  
14 Plan] and the PERs [Performance Evaluation Plan], are  
15 not the project -- the evaluation plan and the actual  
16 awards that are made are not available to the public.

17           Unfortunately those awards are usually most  
18 of the potential award historically. So the  
19 maintenance and operating contractor gets most of the  
20 money no matter what they do.

21           I think that the NNSA grades too easily. We  
22 don't see any list of off-normal events. So no one is  
23 looking over anyone's shoulders. We don't have any  
24 sort of transparency about the infrastructure  
25 conditions across the site. Not just in the nine

1 facilities that were the main focus here this evening,  
2 but the other facilities like the Sigma Building.

3           We need really a complete revolution in  
4 transparency to go with a solid safety culture. We  
5 love you guys, but we -- you're only four people. And  
6 nothing can really be trustworthy until we have that  
7 kind of transparency. I don't think we have that  
8 transparency with respect to Congress or in any other  
9 way.

10           I think that this -- we need to begin to  
11 think seriously following the comment that was made  
12 near the end to look at closing down some of the CMR  
13 wings by a date certain. 100 people is not that many  
14 people.

15           One of the reasons I think we can do that is  
16 we need to look at whether we actually need to conduct  
17 some of these missions. For example, do we really  
18 need to do the Bolas Grande mission. We are not privy  
19 to the ultimate purpose of the Bolas Grande mission.

20           We are told that it increases the  
21 material-at-risk in the CMR building, but to what end?  
22 We are told that we need to have pit production  
23 capacity of a very large amount which is driving most  
24 of this infrastructure improvement, but no one can  
25 explain exactly why we need that pit production

1 capacity.

2           The best thing was one Congressional staff  
3 member who said, "Greg, the generals just aren't  
4 satisfied with not having this around." Well, that's  
5 the level of justification we're really going on.

6           I'm not confident that the safety systems  
7 that we're talking about are robust with respect to  
8 future events such as decreases in budget. I don't  
9 think that LANL can really be made easily safe in a  
10 culture in which the overall safety contract -- excuse  
11 me. Social contract is so -- is so precarious.

12           You could say that it's difficult to make  
13 LANL safe when Northern New Mexico is not safe. It's  
14 not an isolated facility. Real people work there,  
15 real people have problems. And as much as we might  
16 like to wall off the problems of the rest of society,  
17 we can't entirely. So there's limits to safety.

18           CHAIRMAN: Could you begin to summarize your  
19 comments. Thank you.

20           MR. MELLO: Yeah. Thank you. I will. I  
21 heard a little bit of complacency and a little bit  
22 of -- I mean we all want a little bit of promotional  
23 sort of talk here this evening. I would like to see  
24 more -- less optimism.

25           We all -- we have a friend here in Santa Fe

1 that says avoid optimism. That's his little motto.  
2 And I would suggest that's a good motto for Los  
3 Alamos, avoid optimism. And I think that's really  
4 about it. Thank you very much, gentlemen.

5 CHAIRMAN: Thank you, Mr. Mello. Please  
6 submit any written comments for the record. Our next  
7 speaker is Mr. Peter Neils.

8 MR. NEILS: Thank you, Mr. Chairman, Members  
9 of the Board. My name is Peter Neils. I'm the  
10 President of the Los Alamos Study Group. I just have  
11 one comment. That is most of the panelists today have  
12 been substantially above the pay grade of the lab  
13 representatives that chair the meetings that we're  
14 accustomed to attending. And many of which are best  
15 categorized as content free.

16 The public is permitted input. But it falls  
17 into a black hole. It's a sort of managed democracy,  
18 where you have the allusion of participating but you  
19 have no impact.

20 So in contrast these sessions have been I  
21 would say content rich. And holding some of these  
22 high officials from the lab, insisting on -- that they  
23 answer your questions is something with which we are  
24 unaccustomed. And for that I think that the public is  
25 in your debt. Thank you.

1           CHAIRMAN: Thank you, Mr. Neils. Ms. Joni  
2 Arends, please.

3           MS. ARENDS: Good evening, Mr. Chair and  
4 Members of the Board. I relinquished my time earlier  
5 this afternoon in order for Mr. Gilkeson to be able to  
6 present for ten minutes tonight. Thank you.

7           CHAIRMAN: And I think we've agreed he'll  
8 talk at the end of these speakers and ten minutes will  
9 be appropriate.

10          MS. ARENDS: Great. Thank you.

11          CHAIRMAN: Mr. Scott Novak. Mr. Scott Kovac,  
12 excuse me. My apologies.

13          MR. KOVAC: Thank you. Thank you, Chairman  
14 and Members of the Board. My name is Scott Kovac with  
15 Nuclear Watch New Mexico. In these times of budget  
16 constraints, upgrading safety features of existing  
17 buildings must come before the construction of new  
18 buildings, especially new buildings that enable  
19 increased nuclear weapons production capabilities.

20                 Whether we like it or not, all safety issues  
21 are really budgets issues. In the September 29th  
22 implementation plan for Recommendation 2009-2  
23 submitted to the Board, the lab estimates that  
24 upgrades to the existing -- the existing plutonium  
25 facility could cost 150 to \$300 million and last until

1 the year 2020.

2 That's an average of 15 to \$30 million a  
3 year. Meanwhile, the proposed nuclear facility will  
4 receive 200 to 300 and upwards million dollars a year,  
5 while lab cleanup budgets to remove Cold War legacy  
6 are being slashed in half.

7 We'd like to -- I'd like to take a quick look  
8 at the project to seismically upgrade the gloveboxes  
9 at the existing Plutonium Facility. In 2010, 157  
10 gloveboxes were slated to be upgraded to reduce the  
11 plutonium that could be readily dispersed by toppling  
12 gloveboxes followed by fire. These upgrades would  
13 improve the protection of the public.

14 Now the plan is to upgrade ten to 24, I'm not  
15 exactly sure, by 2014. The estimated cost is five to  
16 10 million, but the footnote says unknown budget  
17 situations in fiscal year 12 and beyond may require a  
18 balanced approach between funding and institutional  
19 demands. It's iffy if the budget will be there.

20 A DNFSB June 2010 report, weekly report for  
21 Los Alamos stated that the expected cost of seismic  
22 upgrades to individual gloveboxes has risen from the  
23 original cost of about 80,000 per glovebox to a  
24 current estimate of approximately 850,000 each.

25 In addition, the lab also ended up doubling



1 the number of gloveboxes that need upgrades as a  
2 priority up to 157. So, in effect, the lab's original  
3 estimate for this glovebox work was 6.4 million, 80  
4 gloveboxes at 80,000 each, but the revised estimate in  
5 2010 was 133 million.

6           What do we get for 100 -- what do we get for  
7 \$850,000? Well, the work requires replacement of the  
8 existing stand with the more robust structural members  
9 for stronger anchorage. To gain access to these  
10 components, all services below the gloveboxes must be  
11 removed. The glovebox must temporarily be supported  
12 and the existing stand removed.

13           The new stand members will then be installed  
14 and increase the anchorage to the floor and diagonal  
15 members to support it. All services will be rerouted  
16 to the glovebox.

17           The approved -- the approved accident -- this  
18 is where I get unsure of exactly what happened. But  
19 the approved refined accident analysis and control  
20 selection conclude that glovebox -- glovebox stand  
21 seismic upgrades should focus on gloveboxes that  
22 contain molten plutonium operations only.

23           This insight of the scope of work to that  
24 small number of -- reduces the scope of work to a  
25 small number of gloveboxes. Completion in design and

1 start of that construction is expected to start in  
2 2012, May 2012.

3           The first two stages were affecting 24  
4 gloveboxes. Now we'll focus on adjoining gloveboxes  
5 that were not only high risk but share common  
6 utilities and have common interferences. This will  
7 improve the overall efficiency but will only -- only  
8 by requiring single removal and the reinstallation of  
9 glovebox interferences and utilities.

10           So anyway my question is: What happened to  
11 the other 100 some-odd gloveboxes that were needed to  
12 be upgraded in PF-4? I hope they didn't get dropped  
13 by the way or get dropped because of, you know, an  
14 outrageous estimate. Thank you.

15           CHAIRMAN: Thank you, Mr. Kovac. If you have  
16 any written comments you want to submit for the  
17 record, please do so. Ms. St. Pierre. I know she did  
18 speak this afternoon. Perhaps she signed up for both  
19 sessions and chose one. Once again Ms. St. Pierre.  
20 Ms. Rodriguez.

21           MS. RODRIGUEZ: I spoke earlier, but I only  
22 made a few points. And I kept it short. So the rest  
23 of my points are I live in Albuquerque for 23 years.  
24 And I've -- I'd like to make some other points. One  
25 is the CDC [Center for Disease Control] study that has

1 not been done to my knowledge in Los Alamos, in  
2 Albuquerque, or around the state.

3 My feeling is New Mexico has become a nuclear  
4 dump. We have Los Alamos; we have Albuquerque, which  
5 has Sandia; and there's a mixed waste dump which we're  
6 fighting over. To even get information about, we had  
7 to sue the -- for the information about what was in  
8 that dump.

9 I don't know if you're aware of that. They  
10 put wells in to see if it's even going into the  
11 aquifer of the largest city in New Mexico. We don't  
12 really have the information on that. That's still in  
13 controversy. They want to build a big development  
14 there called Mesa del Sol right within a mile or two  
15 of this dump. I find that really scary.

16 And then you have Carlsbad. And then you  
17 have many outfits, I don't know if they're private  
18 or -- private companies just wanting to mine for more  
19 uranium. And we have a whole legacy of what happened  
20 to the people who have worked in that industry.

21 And former Senator Domenici was at last able  
22 to get some money for them which brings -- for the  
23 people who were harmed by working with the uranium  
24 mines, which brings me to my other point, is that  
25 healthcare is a big issue.

1           A lot of people have healthcare who are  
2 underinsured. And then you have the rest of the  
3 people who aren't insured. So here we live in a state  
4 that has a lot of problems with air, water, and ground  
5 contamination.

6           And then we're considering building the CMRR,  
7 which started out, what, two, 4 billion, now it's up  
8 to 6 billion. They haven't built it yet. I don't see  
9 why we have to make more plutonium pits. I mean isn't  
10 this illegal? Does anybody know that there is a  
11 treaty that says we're not supposed to do that.

12           Isn't that -- isn't that proliferation?  
13 Don't we have pits already? How many nuclear weapons  
14 do you have to use? I mean they're so many times  
15 stronger that were used in Nagasaki and Hiroshima.  
16 This is completely crazy.

17           I know these facilities in Los Alamos pay  
18 good money and it's -- and the private companies make  
19 big money on their contracts. Well, you know, that's  
20 not good enough. They should do something else. Just  
21 because you have a doctorate in physics doesn't mean  
22 you should go up there and make bombs to kill people  
23 and continue to do that.

24           The Russians are gone, the Soviets are gone.  
25 Who are the enemy? I mean who needs the Russians when

1 you have Los Alamos. You know, we are being harmed by  
2 that. This is quite serious.

3 My other -- my main issue is I would like --  
4 I would like you to find out if the CDC could do this  
5 study. And maybe we get some more answers. Because  
6 you're not going to get any answers from these guys.

7 They're really slick and they have all these  
8 answers and they're overly confident. How can you be  
9 overly confident when we're all aware, if you pay  
10 attention to the kind of accidents that are happening  
11 right within our lifetime. It's just -- it's just  
12 staggering. I mean are we waiting for a fault to open  
13 up?

14 None of these guys said that they  
15 actually asked a geologist to look at the faults. And  
16 if I'm wrong, good. Because I'd like to know where  
17 the faults are. And I think you should ask. Let's  
18 get an expert.

19 Not an expert that was hired by Los Alamos.  
20 An outside expert to find out where the faults are and  
21 what the real geological dangers are. This is totally  
22 unacceptable. Thank you very much. I've found a lot  
23 of your questions, especially -- I can't even read the  
24 names.

25 The head of the Board and to his right, I was

1 very -- and actually the three men on the right. I  
2 thought they asked very good questions. And the woman  
3 too. I don't -- sorry. I don't know your name.  
4 Excuse me.

5           But at least I felt that you were asking  
6 questions and you weren't putting up with some of the  
7 double-talk and the -- I don't know how else to put  
8 it. But their use of the English language. I mean  
9 the word robust, I've got to look that up. I've never  
10 heard it used so many times the way they did today.  
11 Thank you very much. (Applause.)

12           CHAIRMAN: Thank you, Ms. Rodriguez. Next  
13 is Dario Rodriguez Jarano. I'm not sure I got that  
14 completely right. My apologies if I didn't. Please  
15 state your name and affiliation.

16           MR. RODRIGUEZ-BEJARANO: Mr. Chairman, my  
17 name is Dario Rodriguez-Bejarano. I am a resident of  
18 the State of New Mexico since 1988. I have worked  
19 here in Albuquerque for most of that time. And  
20 11 years of those -- that time I worked here in Santa  
21 Fe. I commuted every day of those 11 years.

22           But the reason I'm here is because I am the  
23 head of my family unit and a concerned individual who  
24 would like to express his particular opinions this  
25 evening about two items.

1           The first one is the safety of LANL or the  
2 Los Alamos National Laboratories. It is an aging  
3 facility as the Chairman very well pointed out. And  
4 everybody had been saying it's a 70-year class  
5 facility that has -- definitely has run its time.

6           And as you all know, trying to make an aging  
7 facility safe is almost an oxymoron. It's almost  
8 impossible, never mind that it's extremely expensive.  
9 And that's why we have dump -- put in all of our  
10 work -- monies at this particular time.

11           The personnel from LANL were saying this  
12 evening all these kinds of improvement. They sound  
13 quite optimistic and so on and so forth. It sort of  
14 reminded me of the time I lived in Michigan when Ford  
15 in the early 1980s, Ford Motor Company was talking  
16 about that quality was the priority number one.

17           So I beg the question, what was priority  
18 number one before. We are talking about improvement  
19 safety -- safety standards of an aging facility, which  
20 I have said is probably -- it's a very difficult in  
21 the most kind assessment of the words there.

22           There are also these particular problems with  
23 that facility. It is located in a seismic active area  
24 with potential and recently discovered volcanic vents.  
25 Secondly, the geology of that particular area is at

1 best lacking. And LANL personnel have actually said  
2 so much.

3           Tonight they have painted to my -- seeing  
4 these particular present -- presentations tonight in  
5 the last few hours, it's a situation regarding the  
6 safety of LANL now and in the past as being rather  
7 dismal. I will say that in the future it will be just  
8 as dark.

9           Suffice to point out two particular issues  
10 that were brought to your attention this evening  
11 should -- and it would -- probably is a matter of when  
12 an event of really significant proportions actually  
13 happened in LANL, what is going -- what are you going  
14 to do in terms of evacuating and relocating the  
15 population just in the city of Los Alamos? Never mind  
16 the surrounding population.

17           The risk of catastrophic fires, forest fires,  
18 has always been present there. We didn't indeed learn  
19 much about the Cerro Grande fire a few years ago. I  
20 don't think we did learn that much about that.  
21 Because when the latest fire happened, we were still  
22 unprepared to do anything about it.

23           It was simply good luck that it stopped the  
24 fire. And if we are going to say that safety is based  
25 on good luck, it would probably be good luck to us,



1 the ones who will suffer at the catastrophe.

2 Safety and the protection of the employees  
3 and the population of Los Alamos and the nearby towns  
4 can only be characterized as a work in progress. But  
5 there is no real plan to try and keep that population  
6 safe. I don't think those \$6 billion will pay  
7 anything on that.

8 This is a dangerous situation that will only  
9 call for one particular thing that was already  
10 mentioned among other peoples. But one of the --  
11 David. I'm sorry. Mr. -- I forget his name. The  
12 famous candidate of the Republican party like to say.  
13 But never mind. It's -- it is a nearly impossible  
14 thing to continue with this facility, LANL, and it  
15 should be simply shut down and then cleaned up.

16 The second point that I would like to address  
17 my comments to is the water contamination. I will  
18 point you to this particular hat that I am wearing.  
19 And it says we all live downstream.

20 In the case of Los Alamos, it is one -- the  
21 drainage of Los Alamos drains into the Rio Grande just  
22 above the diversion that brings the water to the City  
23 of Santa Fe. Down the stream and along the Rio Grande  
24 is about 80 -- sits about 80 percent of the  
25 population.

1           That is Santa Fe, Bernalillo, Albuquerque,  
2 Rio Rancho, Isleta, Belen, Los Lunas, and then you  
3 count also the City of Las Cruces down there. Now,  
4 the Rio Grande is the main waterway of the State of  
5 New Mexico and is the generator in terms of economic  
6 terms of most of the agricultural product that we  
7 produce here.

8           Damming it that particular way is really  
9 serious. Never mind that Los Alamos, the national  
10 laboratories, have already polluted and contaminated  
11 the ground and most likely and almost definitely the  
12 groundwater. We are claiming at this point that it's  
13 a localized underground basin.

14           CHAIRMAN: Mr. Jarano, could you -- could you  
15 summarize your remaining comments at this time.

16           MR. RODRIGUEZ-BEJARANO: My summary to all  
17 these comments, Chairman, is that we ought to close  
18 Los Alamos. Close it, then clean up, and then find a  
19 better use for our tax dollars.

20           And I would like to thank you as a -- for  
21 closing my remarks to everyone here who actually came  
22 to hear this particular series of comments and things.  
23 Not only to you, the Board, but to the citizens of the  
24 State of New Mexico who cared enough about the  
25 well-being of the state. Thank you. (Applause.)

1           CHAIRMAN: Thank you. If you have any  
2 written comments, please submit them to the record.  
3 Mr. Marian or Marian Naranjo.

4           MS. NARANJO: Chairman, members of the Board,  
5 my name is Marian Naranjo. I am a tribal member of  
6 the Pueblo of Santa Clara. In my presentation  
7 tonight, I would like to add a further description of  
8 the Jemez Mountains, the Pajarito Plateau where LANL  
9 lies.

10           This place is the ancestral homelands to  
11 native pueblo people. This place is a sacred place to  
12 us. It has sustained our culture, our life ways since  
13 time immemorial. We are here to witness what has  
14 happened in the last 70 years in our sacred place.

15           Many changes have occurred. We have  
16 sacrificed our cultural life ways for three  
17 generations thus far. During these fires, you know,  
18 forests burn. And in past we had looked at this as a  
19 replenishment so that new growth can happen.

20           We experienced somewhat of a different  
21 situation since more government agencies have come to  
22 this area. You know, at one time, when we had 24/7  
23 lookout towers where families, you know, would take  
24 turns. And whenever you see the lightning strike or  
25 these fires, you know, our hunters, our men in the

1 valley of Espanola and surrounding communities of our  
2 pueblos, they would gather together.

3           And they know the terrain like the back of  
4 their hands because of their hunting for the elk, the  
5 deer, the turkeys, the fishing. And they could take  
6 care of it. They knew where to draw -- do these  
7 lines.

8           Now, because of governmental agencies who  
9 have come and -- educated people from somewhere else,  
10 because they, you know, go by the book, safety rules  
11 or whatever, Cerro Grande.

12           A potter, in which I am 40 years a  
13 traditional potter, know that you don't fire your  
14 pottery at three o'clock in the afternoon in Northern  
15 New Mexico. There's a natural wind rose pattern that  
16 comes. And they were doing a prescribed burn.

17           This Las Conchas fire, even though there was  
18 this great communications system that had come about  
19 since the Cerro Grande as lessons learned, it was also  
20 part of the scenario, you know, there is this climate  
21 change that should have been put into the -- to that  
22 calculation.

23           We witnessed through the media, controlled  
24 media, where the people in -- commanders in charge of  
25 this fire were saying we're forcing the fire to go

1 north and to go south to save the lab. And they were  
2 very successful in doing that.

3 But during that the reverse side of this coin  
4 is is that my Pueblo, my people lost our watershed to  
5 this fire. We had not -- we had not gotten over the  
6 Cerro Grande fire much less this next one. The  
7 terrain burnt so hard, so hot, that the runoff is like  
8 waterfalls.

9 We've experienced several runoffs where  
10 debris, trees, boulders, the whole change of our  
11 canyon system has drastically changed. It will never  
12 be the same. We lost sacred sites. We have  
13 sacrificed. We're still sacrificing for our nation.

14 There are a bigger picture to this very  
15 holistic picture in this mountain and in what we mean  
16 as our piece of the earth. The earth is changing.  
17 We're witnessing it now. Both north and south of the  
18 LANL property is changing. It's moving. We felt it.

19 My house cracked. And there are -- these are  
20 signs to beware. As land-based people, we've got to  
21 witness a lot of things. And it's beware. Many of  
22 these toxins, these chemicals, these things that are  
23 on LANL property, they need to be removed or we're all  
24 in trouble.

25 You know, we've been there since time

1 immemorial. Where are we going to go? What happens  
2 when our -- when we can't drink our water anymore?  
3 You know, we have a very -- the faults that are  
4 throughout this whole Rio Grande rift. We depend on  
5 this system for our springs.

6 We depend on it for our pure drinking water  
7 that we can't use anymore. You know, every time they  
8 probe into the earth or explode something, it's  
9 ruining this system. And one day it will not be able  
10 to sustain us. And it's -- it's -- I hate to say  
11 this. But that day may come soon if we are not aware.

12 And it's in your hands as recommendations.  
13 And it's also environmental justice issues that need  
14 to be recognized as recommendations for a people who  
15 has been here since the millennium. And for an  
16 operation that's only been there for a short 70 years  
17 and the changes that have occurred.

18 I ask you to please consider the Santa Clara  
19 tribal comments to the Site-Wide Environmental Impact  
20 Statement, complex transformation, the CMRR, and San  
21 Ildefonso Pueblo also, because these issues are very  
22 eloquently addressed. Thank you.

23 CHAIRMAN: Thank you. (Applause.)

24 MS. NARANJO: Thank you.

25 CHAIRMAN: Thank you. Basia Miller, please.

1 MS. MILLER: Mr. Chairman, I gave my remarks  
2 earlier.

3 CHAIRMAN: What did she say?

4 DR. MANSFIELD: She gave her remarks this  
5 morning.

6 CHAIRMAN: Okay. Thank you. She did speak  
7 this morning, you're correct. Dominique Mazeaud,  
8 Mazeauz. Perhaps I'm pronouncing that incorrectly.  
9 Please correct me.

10 MS. MAZEAUD: It's Mazeaud, like chateau.

11 CHAIRMAN: Okay.

12 MS. MAZEAUD: I'm a resident of Tesuque right  
13 outside of Santa Fe. And I want to mention a few  
14 things that the Board should pay a lot of attention  
15 to. And I will list them. People are dying of cancer  
16 and disease from LANL. LANL's past and present  
17 operations, they have contaminated air, water, and  
18 soil.

19 The CMRR and its facilities are within and  
20 threaten a residential area. That's quite obvious.  
21 Overwhelming public opposition to the CMRR. The prima  
22 facie unsafe geological location and earthquake  
23 dangers.

24 I was at home a couple of weeks ago. I  
25 remember the time, 10:38 working, and all of a sudden

1 the house shook. And I called the casa fire, local  
2 public station, and they confirmed that indeed there  
3 had been an earthquake.

4 It reminded me being in Japan in 1994, right  
5 near Kobe, where this was the very large earthquake  
6 which -- the one before the Fukushima earthquake. So  
7 we are, you know, hearing about earthquakes everywhere  
8 more and more. And I think that's a very crucial  
9 issue to pay attention to.

10 The existing groundwater contamination, waste  
11 generation, and management is another public concern.  
12 Unknown financial costs for CMRR completion, aquifer  
13 depletion, the threat to local health and safety from  
14 potential accidents, international concerns from --  
15 for nonproliferation nuclear war, and finally the  
16 continuing environmental injustice of forced removal  
17 of native peoples and the contamination of their land  
18 and sacred sites as Ms. Marian Naranjo said so  
19 movingly.

20 I want to reiterate the fact on the Nuclear  
21 Nonproliferation Treaty by seeking to proceed with the  
22 construction of nuclear of weapons at the LANL CMRR  
23 and the modernization of nuclear weapons. The United  
24 States is violating a nuclear -- the nuclear  
25 Nonproliferation Treaty, NPT [Nonproliferation



1 Treaty].

2           The U.S. is acting contrary to the advisory  
3 opinion of July 8, 1996, of the International Court of  
4 Justice regarding the legality of the threat or use of  
5 nuclear weapons. Thank you, Mr. Chairman and Board.

6           CHAIRMAN: Thank you. If you have any  
7 written comments, please submit them to the record.  
8 Anna Hansen.

9           MS. HANSEN: Hello. My name is Anna Hansen.  
10 I was -- first I want to thank you very, very much for  
11 coming to Santa Fe and holding these hearings. It has  
12 been -- after 30 years of -- I've lived in New Mexico  
13 for 38 years.

14           And working against the destruction of our  
15 community for the last 30, I am really impressed by at  
16 least having some of the questions. And I'm also  
17 impressed that we have experts here that we don't even  
18 have that are legislators when they have held  
19 hearings. I have never seen this level of expertise  
20 in our own state capitol. So I think it's great that  
21 you could come here.

22           But LANL has an extreme, extreme history of a  
23 lack of safety. I was Chair of Concerned Citizens for  
24 Nuclear Safety during the Cerro Grande fire for five  
25 years. I hosted a conference called Cerro Grande and

1 the Aftermath, where DOE representatives did come  
2 thanks to at that present time our Governor Richardson  
3 who was then Secretary of DOE.

4 But, you know, to me one of the things that  
5 came out tonight was the fact that I find it's absurd  
6 that they are self-regulating. I have been a  
7 regulator under Governor Richardson. And I feel that  
8 regulators should not be self-regulated. There should  
9 be an oversight to see what is done.

10 Because we have sued -- numerous groups have  
11 sued the labs. And we have achieved consent decrees  
12 because of their lack of inability to provide safety  
13 records as they mentioned tonight. In the past  
14 they're not very good at keeping bookkeeping records  
15 of how to keep things safe. So that is a real -- that  
16 was a really great question that you asked and I  
17 appreciate that.

18 But I also want to speak really seriously to  
19 the fact that we live in a sole-source aquifer.  
20 Not -- this -- the Rio Grande is a sole-source  
21 aquifer. And LANL is contributing a tremendous amount  
22 of contaminants; not just nuclear, but all kinds of  
23 contaminants to our watershed and our water right  
24 above the Buckman Diversion.

25 And it is a huge concern to me. It is a huge

1 concern that we are being exposed and the future  
2 generations are going to be exposed to these kind of  
3 chemicals that are being used at LANL.

4 Legacy waste is still not completely cleaned  
5 up. We have arroyos and areas on the plateau that are  
6 still not cleaned up. Why is that after 60 years.  
7 Those -- those arroyos that are offsite of LANL need  
8 to be cleaned up now. They are going into our water  
9 system.

10 Once again we are a sole-source aquifer in  
11 this bio-region. And I have to say that I do support  
12 what a number of people have gotten up here and said,  
13 that LANL needs to be shut down or their mission needs  
14 to be changed so that these contaminants are cleaned  
15 up and that future generations are not exposed to the  
16 kind of level of chemicals that are being expose --  
17 that are going down into our water system.

18 The Rio Grande already has plutonium in it.  
19 So we already know that plutonium has been found in  
20 Cochiti and in the river. So we know that there are  
21 chemicals there. And I'm sure that you know that.

22 You asked some of the best questions that  
23 I've heard anybody come here and ask. And so I'm  
24 grateful that you're here to protect me and my  
25 community. But we need a little more protection. And

1 we need you to be really there for us, because that is  
2 your job from what I understand and what I've read.

3 CHAIRMAN: Would you summarize your remaining  
4 comments, please.

5 MS. HANSEN: Yes, I will. I hope you will  
6 come back regularly and often and check on our  
7 community. And we are -- and I am grateful that you  
8 were here. Thank you. (Applause.)

9 CHAIRMAN: Thank you, Ms. Hansen. If you do  
10 have a written statement, please submit it for the  
11 record. I don't know how to make the first name of  
12 the next person, I can't read it well, but it's  
13 Ms. Sollitt. Thank you.

14 MS. SOLLITT: Hello. Chairman and Members of  
15 the Board, my name is Shannyn Sollitt. I come  
16 representing an idea, the Los Alamos Peace Project, to  
17 transform the laboratory's creating of weapons of mass  
18 destruction into institutions that engage only in life  
19 affirming research and development.

20 I'm not a specialist in anything except for  
21 being a human being caring deeply about the future  
22 generations with a deep abiding love of the great  
23 mother earth. I have prepared a statement.

24 LANL sits on top of a windswept mountain in a  
25 seismic zone where wildfires and contaminated runoff

1 continues to threaten and compromise the health and  
2 well-beings of millions who live downwind, downstream.

3           The people here are asked repeatedly year  
4 after year to leave their fields of endeavor and to  
5 take the time to defend their communities against the  
6 oppression and the tyranny of the U.S. military  
7 industrial complex.

8           Citizens have repeatedly shown up to testify,  
9 believing we can with words defend our rights to have  
10 our air, water free from the horrible radionuclide  
11 contaminants created by the lab. Our opinions do not  
12 change. And clearly our voices have never been heard.

13           These hearings always feel like an exercise  
14 in futility, pretending to affirm that we still live  
15 in a democratic country. Nuclear bombs are immoral.  
16 They are a vulgar and heinous crime against planet  
17 earth and humanity.

18           The only worse crime against humanity is the  
19 actual utilization of them. Their existence goes  
20 against the very tenets of freedom and the prevention  
21 from tyranny that our founding fathers designed the  
22 Constitution to protect us against. And those who  
23 perpetrate this crime I believe are tyrants, despots,  
24 and traitors to the Constitution.

25           Please find out how will this CMRR facility

1 protect our inalienable rights of U.S. citizens to  
2 life, liberty, and the pursuit of happiness. You may  
3 respond that the very existence of these weapons  
4 prevent war and for this reason we must continue the  
5 proliferation of our nuclear arsenal.

6           But since the inception of the nuclear bomb,  
7 the United States has been directly involved  
8 militarily in conflicts in at least 30 countries,  
9 Korea, Guatemala, Iran, Haiti, Cuba, Thailand,  
10 Indonesia, Congo, Peru, Laos, Vietnam, Cambodia.  
11 Lebanon, Grenada, Libya, El Salvador, Nicaragua,  
12 Panama, the Dominican Republic, Chile, Bolivia,  
13 Angola, Bosnia, Afghanistan, Somalia, Yugoslavia,  
14 Macedonia, Sudan, Yemen, Philippines, Liberia, Chad,  
15 Iraq, and continues to fund more that channels arms to  
16 Columbia, Mexico, and Israel.

17           This has been an undercover protracted world  
18 war for world domination. The United States has been  
19 far and away the world leader in the development of  
20 weapons of mass destruction and is -- and the  
21 existence of these weapons by our country holds the  
22 rest of the world in fear and has been the cause of  
23 nuclear proliferation, has shredded the fabric of  
24 global potentials for cooperative security that the  
25 whole rest of the world is yearning for.

1           I am going to call a spade a spade. This  
2 plan to modernize the nuclear weapons complex, this  
3 CMRR complex, is being created to line the pockets of  
4 the military industrial contractors in bed with the  
5 legislators in Washington. The military industrial  
6 complex are the traitors to the U.S. Constitution who  
7 have led our country down the road to a failed  
8 democracy.

9           The CMRR facility is out of compliance with  
10 the Nuclear Nonproliferation Treaty and the Strategic  
11 Arms Reduction Treaty. I have a gift for members of  
12 the panel. It is a graphic of the idea of the Los  
13 Alamos Peace Project. And I would like permission to  
14 give each one of you this gift. May I have permission  
15 to approach.

16           CHAIRMAN: If you would just submit it into  
17 the record, we would be very grateful. Thank you very  
18 much.

19           MS. SOLLITT: Okay. Thank you.

20           CHAIRMAN: Thank you for your comments. And  
21 if you would like to submit your written statement  
22 into the record, we would accept that too. Now I  
23 think our last speaker, and he's been very patient, is  
24 Mr. Gilkeson. And please provide your comments.

25           MR. GILKESON: Thank you, Chairman Winokur

1 and Members of the Board. My name is Robert Gilkeson.  
2 Let's work on this. We need to raise it. Is this  
3 better?

4 CHAIRMAN: Thank you.

5 MR. GILKESON: My name is Robert Gilkeson. I  
6 am a registered geologist with more than 40 years of  
7 experience in large technical and research projects.

8 I was a research scientist at the Illinois  
9 Geologic Survey which is a division of the University  
10 of Illinois for 17 years. I was a technical -- a  
11 senior technical consultant to Los Alamos -- I'm  
12 stumbling over the name of the laboratory. Los Alamos  
13 National Laboratory for ten years.

14 I have the credentials for the peer review of  
15 the LANL activities to characterize the seismic  
16 hazard. The design basis earthquake for the proposed  
17 CMRR is -- are simultaneous ruptures from a single  
18 earthquake of magnitude 7.27 with horizontal ground  
19 motions of 0.47 G and vertical ground motions of 0.51  
20 G. These are large ground motions.

21 The ground motions measured that destroyed  
22 the power reactors at Fukushima in Japan in March 2011  
23 were nearly identical at 0.52 G. A very serious issue  
24 is that the LANL 2007 seismic hazard report admitted  
25 that synchronous earthquakes may occur at the proposed



1 CMRR NF.

2           And I have an excerpt on page 1 of our fact  
3 sheet which I will read now. "The hazard from  
4 synchronous versus simultaneous ruptures is shown on  
5 figure 753. The hazard is higher for synchronous  
6 rupture, because the ground motions will be larger  
7 from seismic slip involving two sub events versus more  
8 uniform slip in a single, albeit larger simultaneous  
9 event."

10           I did an analysis of figure 753 in the 2007  
11 PSHA report which presents the results from computer  
12 modeling. The analysis for earthquake rupture of  
13 20 -- on a 2,500 day recurrence period showed that the  
14 synchronous ruptures produced 75 percent greater  
15 ground motions at the proposed CMRR NF than the values  
16 in the design basis earthquake for simultaneous  
17 ruptures from a single earthquake.

18           This is a very important issue. And it's  
19 evidence that the design basis earthquake is not  
20 adequate for the engineering design.

21           Presidential Executive Order 12699 [Seismic  
22 Safety of Federal and Federally Assisted or Regulated  
23 New Building Construction] which was written into  
24 law -- signed into law in July 1990 requires for  
25 industry standards to be used for the seismic hazard

1 assessment at federal facilities.

2           The industry standards require detailed  
3 characterization of faults over a lateral distance up  
4 to 24 miles away from the proposed nuclear facility.  
5 And this is for quaternary faults, which includes all  
6 faults in the Bandelier Tuff.

7           The seismic hazard analysis is based only on  
8 faults that reach the land's surface. The industry  
9 standard requires careful characterization of blind  
10 faults in the subsurface. And the industry standards  
11 that -- on page 5 in the fact sheet, in the case of  
12 concealed or blind faults, the location of the most  
13 shallow extent of the fault shall be indicated on  
14 fault -- excuse me. On fault maps.

15           So if we go to the back of the fact sheet to  
16 figure 2, on page 12, the figure shows the locations  
17 of faults that were used for the seismic hazard  
18 analysis for the proposed facility. This figure only  
19 shows a faults map at the land surface.

20           A very significant finding is that the GM  
21 [Guaje Mountain] fault only extends down to the south  
22 and is shown as terminating a distance of 13,000 feet  
23 away from the facility. I found a LANL report by  
24 Scientist Mallits. And the figure from that report is  
25 on the next page, on page 13.

1           The location of the CMRR NF is shown in the  
2 southern half of the figure. And the large brown  
3 zones on this figure are zones of intense fractures  
4 that were mapped from detailed investigations by LANL  
5 Scientist Mallits. The zones of intense fractures are  
6 evidence of ground motions during earthquake ruptures.

7           And the -- these brown zones would be  
8 continuous along the north/south dash traces, except  
9 that they become concealed in certain locations. So  
10 this is a significant issue that I put in comments to  
11 the Department of Energy. And I was surprised at  
12 their response.

13           Their response was, "Yes, we know that.  
14 There is an extension of the Guaje Mountain fault in  
15 the subsurface toward the location of the CMRR NF."  
16 And they referenced me to a report that was written in  
17 1985, which is on the next page, on page 14. And Joni  
18 has a blowup of this map.

19           This map is very important because the map  
20 describes the findings from detailed seismic  
21 reflection surveys which were done on two long seismic  
22 lines in Mortanda canyon and the Los Alamos canyon  
23 further to the north. And those are lines one and two  
24 on the map.

25           And the DOE informed me that these lines

1 identified the southern extent of the varied Guaje  
2 Mountain fault and actually project that that fault is  
3 located below the brown zone on the previous figure  
4 very close to the location of the proposed nuclear  
5 facility.

6           The industry standard requires accurate and  
7 detailed characterization of this varied fault for  
8 assessment of the seismic hazard at the proposed  
9 facility. But that characterization has not been  
10 done. In addition, on figure 3, there's another fault  
11 identified by the zones of intense fracture located  
12 2,000 feet east of the proposed facility.

13           It's also very important and a requirement of  
14 the industry's standard that there's a detailed  
15 characterization of this fault that's concealed in the  
16 subsurface. If we look on --

17           CHAIRMAN: Would you begin to summarize your  
18 comments, Mr. Gilkeson, please.

19           MR. GILKESON: If we look on figure 2, we  
20 will see that it only shows the locations of faults at  
21 land surface. And it doesn't meet the requirement in  
22 the industry standard for showing the location of  
23 concealed faults and the shallowest depth of the  
24 concealed fault below ground surface. Thank you for  
25 this time. (Applause.)

1           CHAIRMAN: Thank you very much. Are there  
2 any other members of the public who would like to make  
3 comments at this time? Yes, please. Address -- come  
4 to the microphone and tell us your name and  
5 affiliation, please.

6           MS. RAY: Thank you. It's lovely to see you  
7 all here tonight. My name is Anaria Ray. I reside  
8 here in Santa Fe with these good people. I am a  
9 universal citizen. And I'd like to give you the  
10 overview from an esoteric standpoint.

11           And that would be, as you can see, there are  
12 dramatic earth changes happening on the planet. And a  
13 lot of them, if you really track them, are all around  
14 the nuclear plants. There are floods, fires, because  
15 Gaia who is the earth's spirit is bringing people  
16 together to see this.

17           And it's why this last fire, for example,  
18 took so long to become under control, because she  
19 didn't want to be in control to bring as much  
20 attention as possible to LANL. Because it is indeed  
21 time to step forward and make the choice for total  
22 peace and harmony.

23           And these places of mass destruction creating  
24 bombs, not only for on the earth, but that work right  
25 through the entire universe have got to be stopped

1 now, because we're all citizens of this amazing  
2 planet. And we through our being have the opportunity  
3 to change it now by making huge choices for life.  
4 Thank you. (Applause.)

5 CHAIRMAN: Thank you. Please identify  
6 yourself and your affiliation. I don't think we can  
7 hear you.

8 MS. TSOSIE: Hello.

9 CHAIRMAN: We can hear you.

10 MS. TSOSIE: Good evening. My name is Biata  
11 Tsosie. I'm from Santa Clara Pueblo. I live about  
12 15 minutes away from Los Alamos National Laboratory.  
13 It's located in my ancestral homelands from which I've  
14 been disconnected from for about three generations  
15 now, unable to go and offer my respects and my prayers  
16 in our ancestral way and the way that this land  
17 deserves and what it needs right now to heal from the  
18 desecration that's been enacted upon it.

19 I'm really glad that you're here and that you  
20 have the word "defense" in the front of the name of  
21 your Board, because our people really need that right  
22 now. We need really strong, firm advocacy for our  
23 environment and our communities and our families at  
24 this moment in time in history with the Los Alamos  
25 National Laboratory.

1           If they're so certain that safety is in the  
2 future, why don't I feel safe with my family, why  
3 these standards like -- that you talked about that  
4 need to be higher. I'm really glad to be hearing  
5 that, because the standards that they're using right  
6 now protect an adult male.

7           They don't protect my children, they don't  
8 protect the elderly, they don't protect people of  
9 color. They won't protect an unborn child that I  
10 would carry inside me. In fact, some of the toxins  
11 coming from these facilities are the only toxins that  
12 can cross placental boundaries.

13           Standards that come -- that need to hold  
14 these facilities accountable need to protect those  
15 most vulnerable first. And until those standards are  
16 in place, there should be no continuation of the RD --  
17 the land that's already like way beyond contaminated.

18           According to reports that have come out in  
19 the La Habra report, we're the most contaminated site  
20 for airborne plutonium in the nation, more than  
21 Hanford, Rocky Flats, and Savannah combined. That's  
22 legacy waste that deserves cleanup before that's like  
23 compacted by cumulative impacts of another facility  
24 that's just going to increase that pollution.

25           Area G is barrels of mixed waste put in the

1 dirt right above our aquifer. How is that not going  
2 to get into our water. It's inevitable. The trees,  
3 the tree roots can penetrate that over time. You  
4 know, it's -- it goes without saying that the safety  
5 needs to be increased.

6           There is no health studies that have been  
7 done in my communities, even though I've seen a  
8 majority of my family die from various rare cancers.  
9 Where are these -- when are we going to get health  
10 studies to show what our communities are dying from at  
11 this moment before any of these new facilities can be  
12 built.

13           Please help us. Please listen to the -- to  
14 the community experts that are being provided  
15 independent from Los Alamos. Please get more of our  
16 community experts on board with you guys up there,  
17 because we have our own experts that have been living  
18 off of this land for generations.

19           It's not taken into consideration the fact  
20 that we live off the land, that we eat animals that  
21 walk around on the grounds on this facility. We  
22 harvest rainwater, we grow gardens. You know, I can  
23 go on and on about how we -- the points of access into  
24 our bodies that aren't being addressed in these  
25 statements of safety.



1           And so please to keep that in mind when  
2 you're thinking about the larger picture of standards  
3 of safety when you have actual people that are  
4 sustaining themselves from the environment surrounding  
5 these facilities. Thank you very much. (Applause.)

6           CHAIRMAN: Thank you. Does anybody else from  
7 the public wishing to speak at this time? Seeing  
8 nobody -- do you have a comment?

9           MR. BLOCK: Jon Block. I spoke earlier. And  
10 I would just like to add one observation having  
11 listened to the proceeding. I would add my voice in  
12 thanking all of you for your patience and for having  
13 made this possible, particularly to the staff who  
14 helped prepare you for this.

15           I think that all of you were splendidly  
16 prepared. And it really is a refreshing thing. I've  
17 been attending these kinds of proceedings, you know,  
18 for nine out of 16 years. And I do say sincerely that  
19 I am quite pleased to see this. One tends to lose  
20 faith in our government. And it's good to see a  
21 reasonable showing. So thank you.

22           My added comment is that there have been  
23 efforts to clean up this site since 1985. Word has it  
24 that a billion dollars has been invested and that of  
25 that less than a million has actually been used to

1 clean it up.

2           It's time for the highest level of our  
3 government to take a very, very hard look at that  
4 situation. The people who are getting that money,  
5 whether it's LANL, whether it's the State of New  
6 Mexico, they obviously have taken it and incinerated  
7 it.

8           We need to clean up the legacy waste. That's  
9 a very clear message. And it should be a fundamental  
10 principle at each one of these sites that we do not  
11 continue to use them for these dangerous activities  
12 until we have cleaned them up, certified them as being  
13 safe for continued use, and then made a decision as to  
14 what to do in the future of each one of these sites.

15           You're well aware of each of them, I don't  
16 have to name them for you. But you know what's  
17 happened there. And this site is no different. It's  
18 the oldest, it may be the filthiest, and it's the one  
19 that has the largest gathering of people in what would  
20 be called environmental justice communities around it.  
21 I urge you to take that into consideration in your  
22 report to the President. Thank you. (Applause.)

23           CHAIRMAN: Okay. Thank you. Once again any  
24 other comments from the public? With that I'm going  
25 to turn to the Board Members for their closing

1 comments. And I will end with my comments.

2 Ms. Roberson.

3 VICE CHAIRMAN: I don't have any -- I don't  
4 have any additional comments. I'd like to -- I would  
5 like to thank the members of the public that have  
6 endured with us and the members of all the panels.  
7 Thank you very much.

8 CHAIRMAN: Dr. Mansfield.

9 DR. MANSFIELD: I just want to say that I'm  
10 honored to be here and to meet you people and to see  
11 how obviously concerned you are with the safety of Los  
12 Alamos as we are.

13 CHAIRMAN: Mr. Bader.

14 MR. BADER: I would just like to second  
15 Jessie's comments. And I have found this to be an  
16 extremely informative evening. And with that thank  
17 you.

18 CHAIRMAN: Thank you. I'll now provide some  
19 closing remarks. First I want to acknowledge the  
20 hospitality of the Los Alamos National Laboratory and  
21 the local community. I would like to thank our  
22 witnesses and all the members of the public who  
23 participated in this meeting and hearing.

24 I particularly want to thank the elected  
25 officials and other key members of the community who

1 participated here today. An active community with  
2 engaged leaders is a vital part of any successful  
3 program of this nature.

4           The Los Alamos National Laboratory has a  
5 long-term mission with critical importance to our  
6 nation. Los Alamos is also a complex site that  
7 presents an array of safety challenges. To face these  
8 challenges NNSA, the National Nuclear Security  
9 Administration, must ensure that the laboratory's  
10 nuclear facilities are equipped with effective safety  
11 controls that provide adequate protection of the  
12 public and workers.

13           The Board explored three topics of interest  
14 today. Plutonium Facility seismic safety, emergency  
15 preparedness, and safety at the Los Alamos defense  
16 nuclear facilities. The Board believes that no safety  
17 problem in the NNSA complex is more pressing than the  
18 Plutonium Facility's vulnerability to a large  
19 earthquake.

20           Today NNSA and the contractor described their  
21 plans to fix weaknesses in the building structure and  
22 to upgrade these safety systems so they can survive a  
23 large earthquake. These plans are promising and  
24 progress to date has been sound, but this work must  
25 continue to be executed with the utmost urgency to

1 ensure adequate protection of the public and workers.

2           From the Board's perspective, additional  
3 modeling and analysis will be required to ensure that  
4 all seismic vulnerabilities for the Plutonium Facility  
5 that can lead to its collapse and loss of containment  
6 are fully addressed.

7           At this hearing the Board has continued to  
8 engage the Department of Energy and NNSA to better  
9 understand its regulatory framework for ensuring  
10 adequate protection of public and worker safety at its  
11 defense nuclear facilities.

12           The Board is particularly concerned that NNSA  
13 has approved a 2008 documented safety analysis and a  
14 2011 justification of continuing operations for its  
15 Plutonium Facility under circumstances where offsite  
16 dose consequences to the public exceed the Evaluation  
17 Guideline of 25 rem by one or more orders of  
18 magnitude.

19           The Board believes that a strong emergency  
20 preparedness and response program is critical at a  
21 site like Los Alamos, where the hazards are  
22 significant and threats from natural disasters are  
23 inevitable. The Board recognizes the work that's been  
24 done to mitigate risk from wildland fires at Los  
25 Alamos. But priority for improving and maintaining

1 these measures must be sustained, even after the vivid  
2 memory of the most recent fire begins to fade.

3 The Board also sees ample opportunity for the  
4 laboratory to improve its response planning for large  
5 or cascading events that could affect multiple nuclear  
6 facilities and impact critical infrastructure.

7 The Board believes that improving nuclear  
8 facility safety bases and strengthening formality of  
9 operations are two key steps needed to continue the  
10 safe operation of aging facilities until robust  
11 replacement facilities can be designed and  
12 constructed.

13 The record of this proceeding will remain  
14 open until December 19th, 2011.

15 I would like to reiterate that the Board  
16 reserves its right to further schedule and regulate  
17 the course of this public meeting and hearing, to  
18 recess, reconvene, postpone, or adjourn this public  
19 meeting and hearing, and to otherwise exercise its  
20 authority under the Atomic Energy Act of 1954 as  
21 amended.

22 This concludes this public meeting and  
23 hearing of the Defense Nuclear Facilities Safety  
24 Board. We will now recess and take up the call of the  
25 Chair if and when that becomes necessary. Thank you

1 for all attending.

2 (At 10:00 p.m. Session II concluded.)

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

REPORTER'S CERTIFICATE

I, JAN A. WILLIAMS, New Mexico CCR #14, DO  
HEREBY CERTIFY that on November 17, 2011, the  
proceedings in the above matter were taken before me,  
that I did report in stenographic shorthand the  
proceedings set forth herein, and the foregoing pages  
are a true and correct transcription to the best of my  
ability.

---

JAN A. WILLIAMS, RPR  
Bean & Associates, Inc.  
New Mexico CCR #14  
License Expires: 12/31/12



