CHEMISTRY
METALLURGY
RESEARCH
REPLACEMENT

CMRR Public Meeting, September 23, 2009

Volume 8

Los Alamos National Laboratory
Los Alamos, New Mexico

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National Nuclear Security Administration

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CMRR Public Meeting

Wednesday, September 23, 2009

Best Western "Hilltop House", Los Alamos, NM

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II. Transcript

TRANSCRIPT
of
Public Meeting

Chemistry and Metallurgy Research Replacement (CMRR) Project
September 23, 2009

[The meeting was called to order at 6:30 p.m. in the Hilltop House, Los Alamos, NM, by Meeting Facilitator Bruce MacAllister. A poster, LA-UR 0905996, was on display.]

[LANL Slide 1]
[BRUCE MACALLISTER, FACILITATOR]
It's 6:30.

[RICK HOLMES, CMRR DIVISION LEADER, LOS ALAMOS NATIONAL LABORATORY]
Thanks for getting us off to a good start.

[Laugher]
[Pause]

[BRUCE MACALLISTER, FACILITATOR]
Good evening folks. It's time to get started. My name is Bruce MacAllister. I'll be your facilitator for this meeting. Those of you who were at the meeting last time will hopefully remember me. I am a facilitator and business consultant located in Santa Fe, New Mexico. If there, if you want to know more about me, there's a biography over on the table.

[BRUCE MACALLISTER, FACILITATOR]
I'd like to just remind everybody about some of the ground rules. The— Just for starters, as you know, this program is part of a settlement arrangement between a number of parties. The questions— There is an arrangement by which questions are submitted. And those questions have been folded into the presentation that you'll see tonight. You will also see a presentation, another presentation, by the parties— some of the other parties involved. And, uh, as we go through the slides, I will remind everybody else of ground rules.

[BRUCE MACALLISTER, FACILITATOR]
Couple of logistics if you need it: Of course the emergency exit, there are two stairwells in this hallway, one to the left and one to the right as you exit the door. If you need facilities, the restrooms, exit this doorway here. Go to your left. They are located immediately across from the stairway on this side.

[BRUCE MACALLISTER, FACILITATOR]
And without further ado, if we can move through some of the slides.

[LANL Slide 2]
[BRUCE MACALLISTER, FACILITATOR]
This is the agenda for the evening, and as far as the background, I'll just remind everybody what the background is. And there should be materials at the desk that have copies of the information as well.

[BRUCE MACALLISTER, FACILITATOR]
[I'd like to] remind everybody that we have a sign-in sheet. We'd appreciate people signing in for the program.

[LANL Slide 3]
[BRUCE MACALLISTER, FACILITATOR]
Uh, and just to remind everybody, this is the outgrowth of an arrangement brought [about] through a settlement agreement where the Laboratory and a number of parties involved in a potential litigation agreed to resolve their concerns. I'm not gonna read everybody involved here. You can see it for yourself on the slide. The outgrowth of this was to agree to having a bi-annual meeting, one in Spring and one in Fall, during which the Laboratory would provide an update on its progress with respect to the construction project that we will be talking about. And, uh, during which time we've arranged to have, to provide an opportunity for people to, in advance, submit questions, have those questions folded into the information— the answers to those questions, folded into the information which the Laboratory provides to, to the community.

[LANL Slide 4]
[BRUCE MACALLISTER, FACILITATOR]
So, as far as ground rules, if we can move ahead to the ground rules, uh, since we are transcribing proceedings here, and as your facilitator, it's very helpful if we speak one at a time. Because we can't even record, let alone track when we transcribe if we've got dueling conversations going on. So, number one, if we can listen and let people finish their complete thoughts. If we can share the conversation time amongst all the participants so that if you make your point, making a point once is probably adequate. Making it three of four times is maybe a little overkill.

[BRUCE MACALLISTER, FACILITATOR]
As far as cell phones, please put them on mute if you can. It's very distracting to those of us, especially me, trying to keep everything on track.

[BRUCE MACALLISTER, FACILITATOR]
Um, let's keep this issue-focused. Let's be hard on the subjects. If you are concerned about something and want to really hear it, we want to encourage the input from everyone. Uhm, but let's keep it focused on the issues and not on the individuals involved.

[UNIDENTIFIED PERSON]
[Unintelligible words off microphone]

[BRUCE MACALLISTER, FACILITATOR]
Yes?

[KEN LAGATTUTA]
On the first viewgraph [Slide 3], would you say something about what is meant by "air permitting to be segmented to match phased project development? On the very first viewgraph. On the background and purpose of meeting. [unintelligible words off microphone] Settlement [unintelligible words] allows air permitting to be segmented? [more unintelligible words off microphone]

[RICK HOLMES, CMRR DIVISION LEADER, LOS ALAMOS NATIONAL LABORATORY]
I'll touch on that. I'm Rick Holmes. I'll touch on that. I have a chart on permitting and I'll hit on that before we— before I'm done.

[RICK HOLMES AND BRUCE MACALLISTER briefly talking over each other]

[RICK HOLMES, CMRR DIVISION LEADER, LOS ALAMOS NATIONAL LABORATORY]
So, if I don't hit it enough, let me know.

[BRUCE MACALLISTER, FACILITATOR]
I'll restate it. Rick Holmes from the Department of Energy, —

[RICK HOLMES]
From the Lab.

[BRUCE MACALLISTER, FACILITATOR]
—has indicated that he will— from the Lab— has indicated that he will respond to that. To clarify the question: the question was about air permitting. So we'll make sure that that is covered.

[BRUCE MACALLISTER, FACILITATOR]
Um, as far as other ground rules, please wait for me to get to you with a microphone, or use the microphone. Please identify yourself at the outset of your comment. And please remind me to remind you if I get going and I forget to do that. Because it's really important as we transcribe these things, uh, that we are able to keep track of who's saying what. Otherwise it gets confusing.

[BRUCE MACALLISTER, FACILITATOR]
Um, that is true for each time I pass the microphone to you. And I'll try to be good about that as well. So, without further ado— Are there any other process questions or other issues around ground rules?

[TOM WHITACRE, PROJECT MANAGER, LOS ALAMOS SITE OFFICE, NNSA, DOE]
Should we have everybody introduce themselves, like Steve [Fong, Project Manager, Los Alamos Site Office, National Nuclear Security Administration, DOE] has had us do?

[BRUCE MACALLISTER, FACILITATOR]
Yes. So let me just start the microphone here and we'll just start.

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

[TOM WHITACRE, PROJECT MANAGER, LOS ALAMOS SITE OFFICE, NNSA, DOE]
I'm Tom Whitacre with the local NNSA site office. I'm one of the federal project directors—the rad lab construction.

[SCOTT KOVAK, NUCLEAR WATCH NEW MEXICO]
I'm Scott Kovak with Nuclear Watch New Mexico.

[PHIL WARDWELL, LABORATORY LEGAL COUNSEL]
I'm Phil Wardwell. I'm an attorney with the Laboratory's legal office.

[RICK HOLMES, CMRR DIVISION LEADER, LOS ALAMOS NATIONAL LABORATORY]
Rick Holmes. I'm the CMRR project manager.

[JONATHON VENTURA, WEAPONS PROGRAM, PRINCIPAL ASSOCIATE DIRECTOR, LANL]
Jon Ventura, in the Weapons Program.

[ROGER SNYDER, ACTING DEPUTY SITE OFFICE MANAGER FOR BUSINESS, ENVIRONMENT, AND SECURITY, LOS ALAMOS SITE OFFICE, NNSA]
Roger Snyder. I'm the Deputy Site Manager here for NNSA.

[DENNY HJERESEN, ENVIRONMENTAL PROTECTION DIVISION, LANL]
Denny Hjeresen. I'm the acting division leader for environmental protection at the Lab.

[SUSAN TERP, RISK REDUCTION OFFICE, ENVIRONMENTAL PROTECTION DIVISION, LANL]
Susan Terp. I'm with the Risk Reduction Office.

[AMY WONG, Integrated Nuclear Planning Office in Los Alamos]
Amy Wong, from Los Alamos. I'm with the CMRR project.

[JOE HONEA, CMRR PROJECT SAFETY MANAGER, LANL]
I'm Joe Honea with the Lab. I'm the environment, safety, and health manager on the CMRR project.

[DEBORAH GUFFEE, DOCUMENT CONTROL AND RECORDS MANAGEMENT, INFORMATION RESOURCE MANAGEMENT, LANL]
I'm Debbie Guffee. I work with the CMRR Project.

[NICOLE SEQUIN, CMRR PROJECT AND SECURITY AND ENVIRONMENTAL COMPLIANCE, LANL]
Nicole Sequin, CMRR Environmental Compliance.

[RICHARD ALEXANDER, SANTA FE]
Rick Alexander. Not affiliated with CMRR.

[UNIDENTIFIED PERSONS]
[Laugher]

[PENELOPE MCMULLEN, LORETTO COMMUNITY]
Penelope McMullen, Loretto Community.

[MARIAN NARANJO, HONOR OUR PUEBLO EXISTENCE]
Marian Naranjo. Honor Our Pueblo Existence, located at Santa Clara Pueblo.

[DEBORA HALL, REMEDY SERVICES GROUP, WASTE & ENVIRONMENTAL SERVICES DIVISION, LANL]
Debora Hall. I work in environmental outreach at the Lab.

[CARRIE WOOD]
Carrie Wood. I'm with the CMRR Project.

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

[JAY COUGHLAN, NUCLEAR WATCH NEW MEXICO]
Jay Coughlan. Nuke Watch New Mexico.

[DIANE WILBURN, GROUP LEADER ECOLOGY AND AIR QUALITY, ENVIRONMENTAL PROTECTION DIVISION, LANL]
Diane Wilburn, Los Alamos National Lab. Group Leader Ecology and Air Quality Group.

[GREY W. WILBURN, LANL]
I'm Grey Wilburn. Um, I have no affiliation to this project.

[UNIDENTIFIED PERSONS]
[Laugher]

[BONNIE BONNEAU]
I'm Bonnie and I'm from Taos.

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

[KEN LAGATUTTA, X DIVISION, LANL; CITIZENS ADVISORY BOARD TO THE DOE]
Ken LaGatutta, Citizens Advisory Board.

[ROGER SNODGRASS, LOS ALAMOS MONITOR]

Roger Snodgrass, Los Alamos Monitor.

[JEANNE GREEN, CITIZEN]
I'm Jeanne Green, Taos.

[BRUCE MACALLISTER, FACILITATOR]
And last but not least— well, we have a few more.

[MORRISON BENNETT, TRANSCRIBER]
Morrison Bennett. I'm your transcriber.

[MARILYN HOFF, CITIZEN]
Marilyn Hoff of Taos.

[BRUCE MACALLISTER, FACILITATOR]
Thank you. Sir, did we— We've got you. Anybody else that we've missed? Sir?

[ROGER OLSON, OPERATIONS PROCEDURE WRITER, CMRR DIVISION, LANL]
Roger Olson. CMRR Project.

[BRUCE MACALLISTER, FACILITATOR]
Ah, as far as questions, there will be windows of time to answer questions. As questions arise during the presentation, if it's not throwing us off our time too much, I'll be encouraging, y'know, the question at the point of clarification where it makes sense so we don't have to go back. But likewise, if it starts to, uh, languish where we can't get through the whole presentation, I'll want to keep us strictly to the agenda. Okay?

[BRUCE MACALLISTER, FACILITATOR]
Without further ado, I'd like to turn it over to Rick [Richard A. Holmes, Division Leader, CMRR, LANL].

[Unintelligible words off microphone]

[LANL Slide 5, unnumbered on copy of slide]
[RICK HOLMES, CMRR DIVISION LEADER, LOS ALAMOS NATIONAL LABORATORY]
I've got one [microphone]. [In response to unintelligible words]

[UNIDENTIFIED PERSON]
That's great.

[RICK HOLMES]
Thanks. For those of you who don't know, or forgot, I'm Rick Holmes. I'm the CMRR Division Leader or project manager responsible for all the things that we build and ultimately deliver. I've been here almost three years now, and doing this. So, I'm gonna walk through kinda a little bit about some of the stuff that Steve Fong [Project Manager, LASO, NNSA, DOE] would normally

cover. Steve is in Chicago at a design review meeting. Uh, and sends his regrets to not be here. Let's go to the next chart.

[LANL Slide 6]
[RICK HOLMES]
So Steve [Fong] would normally cover why we're, why this project exists. Um, and it's essentially to replace and consolidate the capabilities for actinide science and materials characterization, uh, from the old CMR [Chemistry, Metallurgy and Research] Building, hence the project's name. Let's go to the next chart.

[LANL Slide 7]
[RICK HOLMES]
Some of the capabilities that, uh, we are going to ultimately replace through the two buildings that we are planning on building and the engineered installed equipment. But for anything, nuclear materials, stockpile management, nonproliferation, some materials disposition, and essentially to try to co-locate geographically the plutonium infrastructure—make it more efficient and effective from a safety, and a security, and environmental compliance perspective.

[RICK HOLMES]
Let's go to the next chart.

[LANL Slide 8]
[RICK HOLMES]
So the scope—, and you'll notice I have a real picture of a real building, um, that does exist and is done. That's kinda nice. That's called the Rad Lab, the Radiological Laboratory Utility Office Building. Um, I'm gonna talk about how we are nearing the substantial completion which will occur at the end of this month. Um, it's got 19,500 square foot of radiological lab space. I do have an attempt at a pie chart that tries to answer the question about footprint and where things are. And we'll try to tee that up again right before I get to the end of this discussion, which I'm sure'll be the subject of at least one question.

[RICK HOLMES]
A lot of office space, for 350 workers. Uh, and a consolidated training facility. That doesn't mean they are gonna hire 350 new people. It's the people who work either in TA-55 or at CMR. They need a place that is secure where they can go do office type work and so that's what that does. I'm gonna talk about it in detail kinda where we are relative to completion. But we committed to be done this month, or substantially complete this month. And we will do that.

[RICK HOLMES]
Uh, the next phase in that building— by the way, the project is broken up— is called "equipment installation" — and since the last time we met that work has been authorized by the Department [of Energy] to move forward. And I'll talk about the scope of what that work is and how that schedule fits. And these two phases get the entire building to a ready-for-radiological operations. And Roger [Snodgrass, Los Alamos Monitor] we can send these to you in PowerPoint if that would help too.

[ROGER SNODGRASS, LOS ALAMOS MONITOR]
[Reply off microphone]

[RICK HOLMES]
Okay. We can do that. Might be a little better.

[RICK HOLMES]
Um, the second building is a nuclear facility, um, Security Category I, Hazard Category 2. It is still in design at this point. I'm gonna talk about a couple of things where we are. Since the last time we met we have finished the certification process, and I'll explain for those of you who don't remember what that was, but that has been done and is complete. And we'll talk in detail about that. So, two buildings with associated engineered and installed equipment on a relatively small footprint.

[RICK HOLMES]
Next chart, please.

[LANL Slide 9]
[RICK HOLMES]
Uh, this is Pajarito Road. Um, the Rad Lab Building in, in sketch form, and the nuke facility in the existing TA-55 infrastructure, and ultimately the entire complex, with the rad lab being on the outside, will be inside of the security perimeter. By the next time we meet I'll have arranged for an aerial photograph and actually have this, the rad lab, really in the picture.

[RICK HOLMES]
Uh, let's go to the next chart.

[LANL Slide 10]
[RICK HOLMES]

[SCOTT KOVAC]
[Unintelligible words offering an aerial picture]

[RICK HOLMES]
Oh, that's— I can get them, thank you.

[UNIDENTIFIED PERSON]
[Unintelligible words]

[RICK HOLMES]
We do have means. [Laughs]

[RICK HOLMES]
So, um, the direction to the project has not substantially changed. It is finish the rad lab facility within the baseline, which we are about to say, "Yep, we're done." Prepare for and get started on the equipment installation, and we've done that. Um, resolve the certification issues. And we've

done that too. And keep working on the design, essentially, to maintain continuity of the design teams. And then, the budget for '09 was 97.2 million. For '10, the House [US House of Representatives] mark is at 55 million. We're at 97 million in the Senate [US Senate] version. I don't think the two committees have joined yet to reach a conference committee decision, um, because I think Congress has been a little busy lately. So the direction has not changed substantially to the project.

[RICK HOLMES]
Next chart.

[LANL Slide 11]
[RICK HOLMES]
Kinda the highlight schedule. For those of you that haven't seen the history of the project, it's been around for a very long time. Um, a couple of things that have been done is the Congressional Commission on Strategic Posture, sometimes known as the Perry Commission Report, is out there and available. Uh, the Nuclear Posture Review is now planned. We're hearing sometime in February. And we don't control any of that. It's, y'know, the administration's document. Um, and I'll talk about the details of the rad lab schedule and how we get into, ready for radiological operations in that building, when we get to the REI [RLUOB equipment installation] part.

[RICK HOLMES]
Next chart.

[LANL Slide 12]
[RICK HOLMES]
Go ahead

[LANL Slide 13]
[RICK HOLMES]
So, the rad lab itself is essentially three stories of offices. So the fourth floor is the training center, which is intended to replace the training center that's located currently downtown. It will have a couple of simulated laboratories in it, meaning there's some equipment that people can get, get their training on. There are two full levels of office spaces: some hard-walled offices; some are cubicles.

[RICK HOLMES]
The first level has all of the radiological labs in it, in 26 modules. It's scope has not changed in terms of that. And in below grade in the basement, with the mezzanine in it, is all the utility infrastructure: the ventilation systems, etcetera, to run the laboratory, er run, run the building. Adjacent to the rad lab itself is a centralized utilities building. And that building provides for certain commodities: hot water, chilled water, those types of things that support the rad lab operations.

[RICK HOLMES]

The building is divided into two parts: a limited access side and an uncleared side so that there are— is the opportunity to bring people in who are new or others who need to do science, and can do science in the building and not have to go through the clearance process before they do that.

[RICK HOLMES]
Um, again the building is still going to be LEED [Leadership in Energy and Environmental Design] certified at the Silver level. This will be the first building at the Laboratory that goes through the actual certification process. Uh, the Lab— We as a Laboratory have taken over that process so that the application is, is within the Lab's, the Lab's name, because we have a responsibility for delivering that certification documentation to the US Green Building Council for their review and approval.

[RICK HOLMES]
Um, built to the NQA-1 [Nuclear Quality Assurance] level of quality. That serves a number of things for the project. (A) It insures certainty of outcome for this building itself. But it's also created the opportunity for my team and the Laboratory to learn some things about how to go do this and do it right as we build to what,— somebody might, somebody has told me to be ready to build a nuke facility,— whether we actually do it or not, not germane. But I'm trying to be ready in case they say, "Yep, go do it." So, we've used that experience of NQA-1 in other things as we've done the easier parts of the job so that our procedures are more mature, and we've learned our internal lessons that we need to go forward and do that.

[RICK HOLMES]
Let's go to the next chart.

[LANL Slide 14]
[RICK HOLMES]
So some photos, which I think show up a little bit better in PowerPoint. Boilers inside the building, office space, lots corridors and walled offices, uh, and some of the utility systems. Go ahead, next chart.

[LANL Slide 15]
[RICK HOLMES]
The atrium, which has an awful lot of glass in it, which allows you to get LEED credit. If you look at the side of the building and it reduces the use of light and energy as necessary. The other thing inside the building is the chilled water system. [It] is a, is a glycol system where we chill the glycol very cold during the night using the power, and then during the day, when everybody else is using electrical capacity, we rely on the cooling capacity of the glycol that we have essentially close to frozen to chill water for the lab operations during the day. That's part of LEED. That reduces the demand that the building places on the utility infrastructure around here, particularly in this case. In this case, electrical.

[RICK HOLMES]
Um, if you notice on the outside of the building, on the southern side of some of the windows, you will see what look like fins that are sticking out of the side of the building, and that's to

provide shade and reduce the heat load that goes in through those windows. That's again part of, part of LEED reducing the energy demand on the building. The roof is entirely white for reflectivity so that you don't create the heat load. And I think there has been some discussion about ultimately putting solar panels on top of the roof to generate electrical power as part of another program for generating power and then selling it back to the Laboratory.

[RICK HOLMES]
Go ahead, next chart.

[LANL Slide 16]
[RICK HOLMES]
So, a couple of exterior photos. You can see the, the atrium, and then the uncleared side and the cleared side of the structure sitting essentially close to ground level on this side and then the ground tapers off as it goes into Pajarito Road to be more than mostly fully exposed on the Southern, on the Southern side.

[PENELOPE MCMULLEN]
Can you tell me what "uncleared" means?

[RICK HOLMES]
"Uncleared" means, for most of the work at the Laboratory, you have to have a security clearance. And so someone without a security clearance is uncleared. So if somebody from France needed to come here, they are probably not gonna hold the US government clearance or somebody from a university or college, that kind of thing. So somebody without a security clearance.

[BRUCE MACALLISTER, FACILITATOR]
Could you say your name for the recorder, please?

[PENELOPE MCMULLEN]
Oh, I'm sorry. Penelope McMullen.

[BRUCE MACALLISTER, FACILITATOR]
Thanks Penelope.

[RICK HOLMES]
Next chart.

[LANL Slide 17]
[RICK HOLMES]
So, let's move on into the equipment installation.

[LANL Slide 18]
[RICK HOLMES]
And, if you remember way back in the early days of the project, the project had three phases. It had the rad lab; it had what was called special facility equipment; and it had the nuclear facility.

And because the special facility equipment— the special facility equipment was originally going to be in both— it is still gonna be, it's in both buildings. And it was gonna be a phase and when the buildings were gonna be done essentially very close to one another, then that could be a phase and provide all of the gloveboxes for both buildings.

[RICK HOLMES]
Well, you know the nuke facility has not happened nearly as fast as the rad lab. So, what the Department [of Energy] did is said, "Give us a plan to install, to fabricate, install the gloveboxes in the rad lab as a separate element of the overall program. Give us a cost and schedule baseline and go do that. All the scope of work that needs to take the rad lab facility and make it operational and we'll do the gloveboxes for the nuclear facility when we do the nuke facility down the road." So, this phase essentially started in '07. [Points to the left of the timeline] We were authorized to do the design of those gloveboxes in detail back in '07 and have been working on it since that point in time.

[RICK HOLMES]
In July we received the Department's authorization, which is called the CD-2,3 decision. [CD = Critical Decision] The Department numbers them 1 through 4. CD-2 is, establishes the baseline. Here's your cost. Here's your scope. Here's your schedule. And then CD-3 is an authorization to go and fabricate equipment and install that equipment inside of a building, in this case, or start construction. So we got that decision in July. And essentially there's a number of elements that are necessary to make the building and its outside infrastructure ready for radiological laboratory operations.

[RICK HOLMES]
There are a couple of real small things, a fuel oil storage tank, the rad liquid waste line which takes the radiological liquid waste and ties it into the Laboratory's collection system. Um, office telecommunications, security systems, the gloveboxes themselves, finishing the walls in the laboratory floor so that they can hold up the pipe supports for the gloveboxes themselves, and a couple of other things. There's a parking lot put in there because the people, the 350 people that we talked about, need a place close by to park, and there's not one up there now. So, a number of other elements that make the rad lab itself fully complete and operational. That way then, build the nuke facility, don't build the nuke facility— in either case the Laboratory has a facility and equipment that can do some beneficial operations.

[RICK HOLMES]
Generally the schedule ends the, in October of '11. The people will move into the building and we will be done enough with the tie-ins to the utility systems that we will turn over the building except for the laboratory equipment, to the Laboratory, and people will move into the building. So later on down the road you may hear the phrase "beneficial occupancy." That's what that means.

[RICK HOLMES]
[Points to the right end of the timeline] And then finishing and being operational to include whatever is the readiness assessment process that has to be done to say, "Yes, it is safe and

secure and environmentally compliant, etcetera, to do laboratory operations," will be in the fiscal year '13 or early calendar year '13 for those of you who don't necessarily think in fiscal years.

[RICK HOLMES]
And a total of about $200 million dollars worth of work. A lot of other things put in there in order to make the rest of the system operational. It's not just about gloveboxes. Um, we have been out on the street— one second— we've been on the street with the bid process and we'll probably award the glovebox fabrication contracts, either late, probably in the first half of October. Because we didn't wait, we kept working what we had authorization to go do. And that way we can try to be ahead of plan overall.

[BRUCE MACALLISTER, FACILITATOR]
Your name?

[MARIAN NARANJO, HONOR OUR PUEBLO EXISTENCE, SANTA CLARA PUEBLO]
Marian Naranjo, HOPE. How many people [are] in the design phase from 2007 to 2009?

[RICK HOLMES]
For the gloveboxes?

[MARIAN NARANJO]
For the whole design.

[RICK HOLMES]
For the design of the glovebox work? This work?

[MARIAN NARANJO]
Yes.

[RICK HOLMES]
So, on my team I have probably fifteen people dedicated to that effort, and the contractor has probably another thirty people.

[MARIAN NARANJO]
And how many for the whole design of the structure?

[RICK HOLMES]
For the—

[MARIAN NARANJO]
For the whole—

[RICK HOLMES]
For the facility itself?

[MARIAN NARANJO]

For the facility itself.

[RICK HOLMES]
For the rad lab itself, I think the contractor had about a hundred people working on design.

[MARIAN NARANJO]
And that was for two years also?

[RICK HOLMES]
Well no, the facility started design back in ’05 and—

[MARIAN NARANJO]
Thank you.

[RICK HOLMES, CONTINUING]
—then was essentially finished almost yesterday. I mean there’s a lot of stuff they have been wrapping up in terms of as-built documents and those kinds of things. They’ve tapered way down from there— probably at peak they probably had about a hundred people. On the rad lab.

[MARIAN NARANJO]
Thank you.

[BRUCE MACALLISTER, FACILITATOR]
Rick, can you take another question?

[RICK HOLMES]
Sure.

[KEN LAGATUTTA]
What’s the source— Ken LaGatutta. What’s the source of the radiation that the rad lab is gonna be working with? Radionuclides but not actinides?

[RICK HOLMES]
I think there are some actinides too, yes?

[UNIDENTIFIED PERSON]
[Unintelligible words off microphone]

[RICK HOLMES]
It is actinides.

[Another Unidentified Person]
It is actinides.

[RICK HOLMES]
Most of the work in the, in this building is analytical chemistry.

[KEN LAGATUTTA]
Uh huh.

[RICK HOLMES]
And a max of 8.4 grams of plutonium.

[KEN LAGATUTTA]
A max of 8.4?

[RICK HOLMES]
In the whole building.

[KEN LAGATUTTA]
Okay. And then the nuclear facility which is still to be built, they'll be using larger quantities of the same material? Or somewhat different material?

[RICK HOLMES]
It'll be sometimes different material because material, material characterization will also go on in the nuclear facility.

[KEN LAGATUTTA]
Unh huh.

[RICK HOLMES]
And it also has a vault. And the vault holds—

[KEN LAGATUTTA]
How much—

[RICK HOLMES]
And the vault can store six metric tons

[KEN LAGATUTTA]
And will they have hot cells in the rad lab?

[RICK HOLMES]
No hot cells in the rad lab. Nor in the nuke facility.

[KEN LAGATUTTA]
Really? And no plans for any hot cells?

[RICK HOLMES]
No plans for any.

[KEN LAGATUTTA]
And if the Lab happens to need hot cells, what are they gonna do?

[RICK HOLMES]
Uh, the only thing that comes close to— and I, I'm, I don't want to get too far out of my lane— I think the only thing that come— Right now that work gets done at CMR.

[KEN LAGATUTTA]
Right.

[RICK HOLMES]
Okay? And I think the only thing that may, as I have a responsibility to prepare for, potentially, a large-vessel handling, in case— okay, in case that mission's done. So I have the infrastructure and safety analysis. I don't provide any equipment to do that. 'Cause right now someone has not yet decided if that's ever going to occur. But that's the only thing I have that might even come close. I get that right?

[RICK HOLMES]
Nobody wants to dive in any more. Okay?

[RICK HOLMES]
Okay? I learned from Tim Nelson [Project Director, Integrated Nuclear Planning, LANL].

[RICK HOLMES]
Next chart.

[LANL Slide 19]
[LANL Slide 20]
[RICK HOLMES]
So let's talk about the nuke facility. Um, we're still in the design phase. Um, and sometime next fiscal year NNSA is gonna decide, "Stop, don't stop, go faster, go slower," whatever. But right now, um, right now, we have essentially maintained a core staff of designers who are working, uh, they are working design issues, so they are working on, we are working on design, getting ready ultimately to be able to release products that you can go construct. I'm told that the pace will be set after the national decisions are rendered. And essentially that's the Nuclear Posture Review that people are looking for, that now is supposed to come out in February. But, like I said before, I am the last person who has any control over that schedule.

[RICK HOLMES]
Um, we've talked about the certification process to resolve the issues by the Defense Nuclear Facility Safety Board, or DNFSB. They are a highly independent, free-thinking organization. They do provide advice and recommendations. Um, they had a number of issues, and certification was, was mandated by [the US] Congress. And the last $47 million dollars of the fiscal year '09 money could not be applied to the project until fifteen days after both the Defense Board and the NNSA administrator certified to Congress that the issues the Defense Board had

with seismic design, equipment qualifications, documenting the safety functions and function requirements and the safety documentation, all of those things had been resolved. Both documents were delivered on September 14th. And the Defense Board report is on the dnfsb.gov page. As of today it was on the front, but if they've moved it to the back, they have a section on Los Alamos that says "congressional reports." You are nodding your head like you've already seen it.

[RICK HOLMES]
On the CMRR external web page we wrote, and and Herman Ledoux [Project Team Leader, Los Alamos Area Office] signed off on, kinda of the, what the project had done and accomplished in order to achieve certification. So if you go to the, my external web page, and go under the, the public meetings, in there is that, is that document. And I'm gonna leave it there for a little bit. But ultimately I'm gonna move it to the front because I think we've got some reference documents, and somebody who doesn't know about us and this process may wanna go get, and I'd like them to see that on the front.

[RICK HOLMES]
That report, that Herman Ledoux and I signed off on, Herman's the federal project director, became the appendix that the administrator used, plus his other processes, for his certification. So it also is intended to mimic and say, "Here's what we did here in Los Alamos. The Defense Board graded our paper, and wrote their report; both of them are open and available for your reading enjoyment."

[RICK HOLMES]
And I think that if you read them you'll see— I think they agree. Um, so [the fact that] we have resolved the issues by no stretch of the imagination means we are done. Right? A lot of work to go do to finish the design, to make sure that it's done properly. The Defense Board is still gonna keep watching over— in fact I had a phone call from them last week about "Here's future projects that we are gonna share with you while we go execute the things that we have agreed to." And their certification is contingent upon the project, my team, doing the things we committed to do. So there are certain things that we are gonna go forward as we move through the design process that we would share with them and let them give us advice and counsel on, uh, that'll be moving forward.

[RICK HOLMES]
So, we've achieved the milestone with the Defense Board, but no way near hear that we are finished because there is still a lot of work left to do. But I think we are in pretty good alignment. In my view, this has been a good process. It was painful. It was a huge amount of work. But I think in the end, having gone through this process, the design has a lot more depth to it at this point than I think we would have had we not gone through it. Now I'm not suggesting that anybody else ever try to sign up for this again, but I think for this project, it's turned out to be a good thing.

[RICK HOLMES]
Next chart.

[LANL Slide 21]
[RICK HOLMES]
So, I'm gonna take another cut at square footage. [Laughs] In the CMR Building, and this is kinda talking about laboratory space, but I tried to scale the two pie charts to be based on proportional to facility size in total. And then tried to communicate, of the pie wedges, and this is the existing CMR [points to the largest pie chart on the left side of the slide], and this is the rad lab [points to the pie chart on the upper right side of the slide], and this is the plan for the nuke facility [points to the pie chart on the lower right side of the slide], where things are used in terms of space. So CMR had 134,500 square feet of laboratory space, and we all remember the numbers on the rad lab and nuke facility. There's a lot of space, particularly in the nuclear facility for structural concrete members, because we are gonna support that entire building. Um, huge corridors for ventilation ducts. My experience comes from chemical weapons disposal in the past and a lot more ventilation capacity in these buildings than we had, and I'm thinking, you know, six- to seven-foot diameter ducts as you move into the collection system for the number of hoods that could be put into that building. Um, a lot of utilities, laboratory support. Um. You can see offices in the rad lab itself. So, I tried to take a cut at it. The size of the pie circle is intended to be proportional to the total building footprint. And then we tried to articulate as percentages, so that I can share it pretty freely, is the pie wedges that go to various components and bins inside of each of the buildings.

[BRUCE MACALLISTER, FACILITATOR]
Rick, question?

[SUSAN GORDON, ALLIANCE FOR NUCLEAR ACCOUNTABILITY]
Susan Gordon. What is the, ahm, the vault size comparison from the current CMR Building into the nuclear facility?

[RICK HOLMES]
So, here's the wedge of the vault in terms of the footprint. And I don't have the exact percentages of each. Um, but the vault is pretty small, you can see, relative to the total inside. So I don't know if this wedge here of vault is the same square footage as that vault.

[SUSAN GORDON]
That's my question.

[RICK HOLMES]
Okay.

[SUSAN GORDON]
Can you give—

[RICK HOLMES]
We can get that for you. 'Cause there's also a vault in PF-4 too, by the way, that I'm not sure I can tell you much about. But we'll, we can answer that question. We try to come close.

[BRUCE MACALLISTER, FACILITATOR]

Another question?

[KEN LAGATUTTA]
Ken LaGatutta again. So, so the CMR Building, the part of it, the nuclear laboratory area is about 134,000 square feet, but the entire laboratory, if I read that chart correctly, is more like 500,000 square feet. Is that right?

[RICK HOLMES]
Yeah, it's bigger than 500,000—

[KEN LAGATUTTA]
Un huh.

[RICK HOLMES]
In total. I think it's 550 if you wanted to be closer. I think there's one up here. Did you still have one?

[KEN LAGATUTTA]
Yeah.

[JEANNE GREEN, CITIZEN]
Jeanne Green. I'm confused. The CMR Building is the one that is near completion?

[RICK HOLMES]
No. The rad lab is near completion. [Points to the pie chart on the left hand side of the slide.] This building was completed in the 1940s.

[JEANNE GREEN]
Okay, so that's the older building.

[RICK HOLMES]
Right. This is the building I just—

[JEANNE GREEN]
The CMRR is—

[RICK HOLMES]
The rad lab is the one I just finished. [Points to the pie chart on the upper right portion of the slide.] The facility.

[JEANNE GREEN]
And this— And the one on the bottom is not yet approved?

[RICK HOLMES]
It's only on paper.

[JEANNE GREEN]
And that will wait for the Nuclear Posture Review?

[RICK HOLMES]
That's what I'm told, yes.

[JEANNE GREEN]
Okay. Thank you.

[RICK HOLMES]
So I will leave that with you to digest unless you want to go for more questions now.

[UNIDENTIFIED PERSON]
I knew you'd go there.

[Laughter]

[BRUCE MACALLISTER]
One more question.

[SCOTT KOVAC, NUCLEAR WATCH NEW MEXICO]
Scott Kovac. Um, the rad lab shows a little vault storage, and that's just classified media?

[RICK HOLMES]
Yeah, that's paper and electronic stuff only.

[SCOTT KOVAC]
Now the vault in the old CMR Building is not classified media? Or is it?

[RICK HOLMES]
Only if you consider plutonium classified.

[SCOTT KOVAC]
Um, could you explain how much of the CMR Building existing nuclear lab space is actually being used? Does that, does that pie, does that part of the pie represent— 'cause I know that some of the Lab's, some of the wings have closed down. Does that include the closed down wings also?

[RICK HOLMES]
This pie wedge [points to pie chart on left side of slide] does include the wings that are closed down. Today, in operation, is about half of that, is being used.

[Someone nods]

[RICK HOLMES]
I guessed right.

[Laughter]

[SCOTT KOVAC]
Thank you.

[RICK HOLMES]
Okay.

[BRUCE MACALLISTER, FACILITATOR]
One more question?

[RICK HOLMES]
At least?

[KEN LAGATUTTA]
Ken LaGatutta again. What's the uh, can you tell me an estimate of the actual floor space in Wing 9?

[RICK HOLMES]
Not off the top of my head. But we can get that for you.

[KEN LAGATUTTA]
It's where the hot cells are, right?

[RICK HOLMES]
Yeah, I know. I don't know. We can get that for you though.

[RICK HOLMES]
Okay. Next chart.

[LANL Slide 22]
[RICK HOLMES]
So, Ken [LaGatutta], you asked a question about segmentation of permits. Because the project is essentially being authorized in phases, the permitting process goes forward in phases too. And so that's what that segmenting means. Okay. It's not intended to divide it all up; it's, okay, when the Department [of Energy] or the Laboratory are ready to go forward with the part, make sure you have the right permits in place for that part. And so one of the things we try to do is to make sure that you know when we think we would have documents in the review process for, to support the permitting. Um, and so, there's a, there's a number of them that have to go forward. One's a Title V operating permit mod for the rad lab. And you can see that would be in 2010. Um, we do have a New Source Review permit that has to be prepared and we would start that in the first part of 2010 unless we are told to stop.

[RICK HOLMES]

Um, there's an air permit for a batch plant for concrete. And so, and that may not be titled "The CMRR Batch Plant" because there are other construction projects at Los Alamos that need concrete and need it to the right quality level and need it delivered at rates that can't be done today, um, with the existing infrastructure. And so, we debated whether this stays on the list or not. From my view, it stays on the list, because we are gonna be one of the major users of that batch plant. And we've talked about it before. And that one would be in the, sometime in the 2010, the summer of 2010 process as it gets into the review and approval process. Relatively straightforward, but important to get done and done properly.

[RICK HOLMES]
And then, if necessary, if somebody says, "Go build the nuke facility," um, we would be in, again, late in 2010, for a pre-construction approval for the nuke facility, which is part of the radionuclide permit. So, I know for sure, the Title V permit for the rad lab will go forward, because we got authority to build it. And since we are building it, people intend to use it, so that one definitely would go forward. The rest of these will go forward if somebody says, "Yep, we still want you to build a nuke facility here at this footprint with that design, etcetera." So I think I've hit the segmentation, so we do all the rad lab stuff first, and then we'll come back with the nuke facility. 'Cause that way we know enough about it to do the permitting and can put the right level of documentation in, in everybody's hands who has a stake in that world.

[RICK HOLMES]
And finally, that's my piece of the pitch. Um, if there are any other questions, you wanna go forward now?

[BRUCE MACALLISTER, FACILITATOR]
Okay, questions? Remember to identify yourself again.

[UNIDENTIFIED PERSON]
All right.

[BRUCE MACALLISTER, FACILITATOR]
Thank you.

[UNIDENTIFIED PERSON]
Hold on.

[SCOTT KOVAC]
Um, back on Slide, um, 20. Did the DNFSB certification approval cause any changes to the design? Or proposed changes? Or changes to the proposed design, I should ask? This is Scott Kovac.

[LANL Slide 20]
[RICK HOLMES]
Um, as a result of going through that process, and getting asked hard questions by smart people, is what I'm defining as the process, there's nothing that they directed to be done. Um, I think there are number of things that we have done to make improvements in the design and what we

know about the design. Specifically, we've made some improvements in the structural design, um, that will reduce the seismic demand that will be imposed on equipment. Um, y'know, this is an area that can have an earthquake potential, that we must design for and take into account in the design. And the ground underneath the building is not very good from that perspective. So, we not only are making, made some changes to the building to make it stiffer, so that it would not translate that energy into the equipment, but we are also going to remediate, either replace or pressure grout inject the soil directly underneath the facility to make it more robust in a seismic event.

[RICK HOLMES]
So we've made some pretty substantial modifications to the building in terms of— it still looks the same, the design is basically the same, the columns are thicker. In some areas we have a floor slab that extends over, over the top of the vault directly instead of having it segmented. So certain tweaking or adjustments in the design, as well as the soil preparation that'll occur directly under the building. So that came about as part of this particular process. Now, I don't know what the end results are yet, because it'll be into next year before we finish the soil structure interaction which is the last document you get in that, as part of that overall design process. So that's part of what the Defense Board's gonna keep watching.

[RICK HOLMES]
We also have furthered the understanding of how equipment is likely to respond to a seismic event, that we put inside the building. As part of this process we brought an expert out who has a lot of experience at Palo Verde nuke facility where they have a high seismic demand on that facility, where he has done a lot of equipment qualification. He looked at the types of equipment that would be in this structure, and the data that they have got, and came forward and said that, "You have, can have confidence that if you say you are gonna buy a safety class fire water pump, 'cause that's our commitment, that, yes, you are going to be able to do that."

[RICK HOLMES]
So, two things. One is that confidence in that equipment part because the Defense Board didn't want us to say today, "We're gonna have safety class fire water pumps," and then down the road after everything is too far, and say, "Well, we thought we could, but we can't." So we have confidence there. We made changes to the structural design of the building to make it more robust should the earthquake occur. And then the other part of the process that really doesn't manifest itself, that you see directly in design. But I think the depth of our safety analysis, and how we have documented the safety functions and functional requirements that our equipment must meet, given a potential for certain accidents, should they occur, is extremely defensible. And it's very clear and articulated when the linkage from the accident scenarios that have been postulated, where you get a bunch of smart people and sit down and say, "What could happen?" And then now you have to translate that into engineering terms and procurement terms so that you can design and go buy that equipment. And the, and the process that we came up with as a result of being challenged in this area I think gives us what the Defense Board has been telling us, that says, "Go share this with the rest, of the La—, go share this with the rest of the community in terms of UPF [uranium processing facility] and other sites because it's, it's clearly defensible and understandable. That doesn't really manifest itself in terms of a design change,

but, it will help us make sure that we deliver ultimately on the commitments that come out of that particular analysis.

[TOM WHITACRE]
[Trying to start a comment]

[RICK HOLMES]
And those are some of the major things that came about as part of this particular, this particular process.

[TOM WHITACRE, PROJECT MANAGER, LOS ALAMOS SITE OFFICE, NNSA, DOE]
And I'll add to that— Tom Whitacre at NNSA— Typically at a high level, y'know, Rick is talking about the details, it is true. But if you look at a really high level the amount of detailed information and calculations in design you have. For a typical project in a preliminary design phase we've way exceeded that requirement, the type of analyses that are done, the type of design and engineering. There's more, if you want to consider design phase 30% complete, 60% complete, 90%, then done, y'know, we're supposed to be in preliminary phase, maybe 30% complete. But a lot of the analysis that's been done, and the engineering, we're pushing the more 60% type complete. So, the amount of information we are having for our preliminary design level compared to pretty much any other project the NNSA has ever done, we are much, we have exceeded that greatly in the amount of analysis and detailed calculations. So, y'know, [we've] kinda pushed the envelope in that way as well. So at a high level, that's, y'know, that's—

[RICK HOLMES]
Some would say "about time."

[RICK HOLMES]
But I think— But there have been some specific changes that we did. I think that the depth of what we have I think is, is much more, the technical foundation is much stronger than what we had before this particular process.

[BRUCE MACALLISTER, FACILITATOR]
Question over here, Rick. Ma'am?

[MARILYN HOFF]
Yes, my name is Marilyn Hoff. You were talking about, um, accident scenarios that you considered. Could you give us examples of some of those accident scenarios, um, as apart from the seismic event scenarios?

[RICK HOLMES]
Sure. Y'know, the hazard analysis looks at anything that potentially could happen. A drop of something. A spill of something else.

[MARILYN HOFF]
You look at fires?

[RICK HOLMES]
—looks at fires in the building and how they translate to other places inside the structure. So it looks at almost anything you could think of. Ranging from terrorist act to fires in the building and how they might promulgate to certain areas. Um, loss of ventilation systems for whatever reason. Drops, spills. Not only of plutonium, but also of chemicals that would be inside the building structure. And so we actually looked at the operations that the laboratory people would be performing and not just from a plutonium perspective, but what chemicals would be in the building. And if they spilled, would they, how would they translate should that accident occur, to not only a public person, but also a co-located worker, which is someone who is defined as, I think it's a hundred feet or a hundred meters away from where the accident does occur. So it looks at safety from the perspective of the workers in the building, which is, if you get that right first, then everything else kinda takes care of itself through a range of in-facility events, external events (weather, wind, volcanos, that type of thing— um, I don't think I have a hurricane one in here, but uh, I've done it elsewhere), uh, to almost anything you can think of would be in there.

[MARILYN HOFF]
How confident do you feel that you've solved the problems of dealing with these kinds of extraordinary events?

[RICK HOLMES]
I think— I'm very confident that we have the technical answer. So we know what we need. We know we need a safety class fire suppression system. And what that means is, we have a fire suppression system that will not only function during an earthquake, but after an earthquake, should it occur. And so, we know, I'm confident that we know what we need and we know how to get it. We'd have to go get— go out and, we have to go execute now, we have to go get all that stuff here. But we know, I'm confident we know what we need to go do this building and do it right and safely ultimately.

[MARILYN HOFF]
What is the fire suppressant system that you envision?

[RICK HOLMES]
Water. It's a water system. Yeah. And we have to then think about criticality, for those of you who have been around for a long time period. So, okay, if I dump all this water, what do I do? But, and how do I store the water inside the building and make sure that it's, y'know, that it's fully redundant, all those kind of things.

[MARILYN HOFF]
Um, —

[RICK HOLMES]
You might as well just keep the microphone.

[MARILYN HOFF]
Um. I uh, this is just something I had heard, um, is that water in relation to plutonium is kind of dangerous because it is a neutron reflector and, and could inspire criticality, so is— How do you take that into account?

[RICK HOLMES]
It had to be thought about. Had to be analyzed by, I have some, we have people on the team who do the criticality assessments, and they had to look and say, okay if you use this fire suppression system, where does the water go? And make sure that the water goes to a place in a geometry that would not create the criticality event. So that, the ripples of, it's not enough in the analysis to just know what is your solution to the problem; you have to understand the ramifications of that solution on potentially creating other problems. So it's not just a one-step through, it has to be thought out completely. And I think, I'm pretty confident that we've done that well enough to say, "This is, we know what it is we need to go do this building properly."

[BRUCE MACALLISTER, FACILITATOR]
Questions? Other questions? Sir? In the back.

[JAY COUGHLAN, NUCLEAR WATCH NEW MEXICO]
I'm Jay Coughlan with Nuke Watch New Mexico. I'd like to go back to Slides 6 and 7, which address mission need.

[RICK HOLMES]
Um hmm.

[LANL Slide 6]
[JAY COUGHLAN]
Um, there on 6 it's stated that the capabilities necessary to support current directed stockpile work and campaign activities beyond 2010. That seems like an assertion to me that's not necessarily supported at this point in time. It's not determined, at least not until the Nuclear Posture Review comes out. You've, you referred to that a couple of times already. Um, but I think it's been that kind of assertion that, y'know, that has driven the Laboratory's desire for the, for this project, and particularly the nuclear facility all along. Specific to Slide 7, I've always understood that the main mission for the nuclear facility is going to be analytical chemistry and material characterization.

[LANL Slide 7]
[JAY COUGHLAN]
Now, I understand that the old CMR's mission of material characterization has already been moved out and relocated at PF-4 according to a letter that Tom D'Agostino [Thomas P. D'Agostino, Administrator, NNSA] wrote the Defense Nuclear Facilities [Safety] Board. Uh, so, one, one of the twin pillars of future mission need for the nuclear facility has already been successfully relocated. To finally bring this down to a question, why can't analytical chemistry be also relocated at PF-4, or perhaps performed in a limited fashion at the rad lab? In other words, why do we really need the nuclear facility and has Los Alamos really studied essentially how to get along without the nuclear facility?

[RICK HOLMES]
So, if Steve [Fong] were here, you know what Steve would say. Steve would— okay— okay— Because I'm not the policy guy. Right. And that mission need statement, that's written in my mission need document signed by NNSA, which says, "We want you to be prepared to go do this." And there's a lot of set of requirements that flow out of that particular document that my team is responsible to meet. So, from a, from a program perspec— I'm not the program guy. And, and Steve would say, ya' know, we're trying just to stay focused on updating information that comes here. I know PF-4, and I've been in there lately, is pretty crowded right now. Um, and the, ah, there's lots, we could talk for a long time about, about strategic defense and a deterrent-based defense, and flexible response, and all that kind of stuff, in terms of what you might need in terms of infrastructure. We probably wouldn't reach a conclusion. So, that's, that's kind of my non-answer. But you knew I was gonna give you the non-answer.

[BRUCE MACALLISTER, FACILITATOR]
Ma'am, you had a question?

[JEANNE GREEN]
Jeanne Green. Um, I'm just wondering, how can it make sense to you to build nuclear weapons in a location where earthquakes are likely?

[RICK HOLMES]
I didn't say earthquakes were likely because there hasn't been one for a really long time. But because there was one, it has to be planned for. So you have to take boundary conditions in terms of things that have happened thousands of years ago and say, "Okay, happened then. None of us have been around long enough to know what's gonna happen next, and have the plan for that potential." Doesn't mean it's probable. But it has to be planned for in that potential space. And so I'd rather plan for it and not have it happen than the opposite. So. The hazard analysis does not make any claims about probability. There are specific guidelines and requirements which mandate, if something has happened within a very, very long time span, then, you have to be able to say, "Plan for it."

[BRUCE MACALLISTER, FACILITATOR]
A follow-up?

[JEANNE GREEN]
A thousand years?

[RICK HOLMES]
No, it's thousands.

[JEANNE GREEN]
Thousands of years?

[RICK HOLMES]
Tom [Whitacre] can answer more details, but, because he's the geo-guy.

[TOM WHITACRE, PROJECT MANAGER, LOS ALAMOS SITE OFFICE, NNSA, DOE]
So, Tom Whitacre. NNSA. So what we have in the facility requirements for this type of facility, since it's a high hazard facility, DOE uses different performance categorizations of buildings. PC-I is like an office space. A PC-II building, Performance Category II, is like the rad lab. It's kind of a more essential building. And PC-III is like a high hazard facility. And PC-IV is like a nuclear reactor. Okay. So there's different levels of risk you account for in those types of facilities. So we have a PC-IV facility for our nuclear facility. So basically you have to design, you know, everyone's kinda familiar with the 100-year flood event, like the folks in Georgia had this past weekend. Right. So, the building here accounts for a one in twenty-five hundred year earthquake. That's what it's designed to operate and to account for, one in twenty-five hundred year earthquake. So, that earthquake could happen tomorrow, it could happen in ten thousand years. It's just, we don't really know when it's gonna happen, but there's a design basis for the earthquake, in the structure to account for the one in twenty-five hundred year earthquake event. And so, if you do kinda of a regular type of building, like an office building here is about a one in five hundred year type of earthquake, is what you account for. So to kind of put that into perspective. So we're looking for a longer period of time you have between the earthquake events, the bigger potential earthquake. So, the one in twenty-five hundred years is a pretty significant seismic load that you have to account for in the building structure. So that's kinda how you incorporate the seismic into the building.

[LANL Slide 23]
[BRUCE MACALLISTER, FACILITATOR]
We've got time for about one more question before we move on.

[KEN LAGATUTTA]
Ken LaGatutta. At the rad lab now, or soon, presumably, and in the nuclear facility much farther down the line, they are going to be doing work that is gonna generate at lot of radioactive and chemically toxic waste, and, uh, I wonder what plans are being made to deal with that waste. What's gonna be the disposition of that waste?

[RICK HOLMES]
So the waste, and I'm not sure, I'm not sure of the quantification, whether it's a lot, a little— okay, but if its one little thing, it's gotta be taken care of properly, right? So, the Laboratory does have infrastructure in place today for— and it's, and it's working to improve that infrastructure in, in other projects, the Rad Liquid Waste Treatment Facility, etcetera, in order to be able to compliantly and environmentally safely treat and process that material. These facilities would use that same laboratory infrastructure, with their ultimate improvements, if they, if they get implemented.

[BRUCE MACALLISTER, FACILITATOR]
Okay. We need about two minutes to get set up here, and uh—

[SCOTT KOVAC, NUCLEAR WATCH NEW MEXICO]

I have a slight problem. I believe I did not bring my adaptor to plug my computer into the projector, because this is a Mac, and I was wondering if anybody had a non-Los Alamos official PC, or a Mac adaptor for the thing?

[UNIDENTIFIED PERSON]
I just got out without mine.

[BRUCE MACALLISTER, FACILITATOR]
Does anybody have an adaptor or a non-LANL laptop that we can use.

[SCOTT KOVAC]
I have handouts so maybe we can just do it off those if—

[BRUCE MACALLISTER, FACILITATOR]
We'll make it—

[SCOTT KOVAC, continuing]
—I have enough.

[BRUCE MACALLISTER, FACILITATOR, continuing]
—collegial and informal. We can't— the LANL security rules, right?

[UNIDENTIFIED PERSONS]
[Unintelligible words]

[BRUCE MACALLISTER, FACILITATOR]
Sorry?

[SCOTT KOVAC]
I have a CD, I have a CD with the PowerPoint on it.

[Pause]

[SCOTT KOVAC]
Where is that?

[RICK HOLMES]
We can uh—

[BRUCE MACALLISTER, FACILITATOR]
I can't speak to the LANL security rules.

[RICK HOLMES]
We can do that. We can scan 'em— we can swipe it after. I can swipe it.

[SCOTT KOVAC,]

Okay.

[RICK HOLMES]
So, if you've got a disc.

[SCOTT KOVAC,]
Yes, I have a disc.

[UNIDENTIFIED PERSON]
Okay.

[UNIDENTIFIED PERSON]
I'm sorry.

[RICK HOLMES]
Okay. So, if that disc can be read by a, I know you Mac guys don't necessarily like PCs, but— We'll just, we'll just swipe it afterwards.

[BRUCE MACALLISTER, FACILITATOR]
Solution reached.

[SCOTT KOVAC]
Thank you.

[RICK HOLMES]
Anything for you Scott.

[BRUCE MACALLISTER, FACILITATOR]
So we'll just take about two minutes to just get set up here.

[More unidentified voices]

[UNIDENTIFIED PERSON]
Yeah, the Mac takes a different out port, I/O port, to go—

[Pause as recording tape is being turned over. Discussion of lack of a sufficient number of copies of the slides for distribution to participants.]

[BRUCE MACALLISTER, FACILITATOR]
And we are looking forward to hearing it.

[SCOTT KOVAC]
You have extra ones— Does everybody have someone to look over— You have this one.

[UNIDENTIFIED PERSON]
Thank you.

[BRUCE MACALLISTER, FACILITATOR]
Anybody else need a—

[UNIDENTIFIED PERSON]
Sure, there seems to be a couple here.

[BRUCE MACALLISTER, FACILITATOR]
—a copy.

[SCOTT KOVAC]
I'm so sorry.

[Pause]

[SCOTT KOVAC]
Yeah. Yeah. And um, these will be in the meeting proceedings on the LANL website, CMRR website, and we'll post them on our websites and—

[Interested Party Slide 1]
[SCOTT KOVAC, NUCLEAR WATCH NEW MEXICO]
Thank you very much. Slide number 1. The, um— Welcome to our presentation.

[Interested Party Slide 2]
[SCOTT KOVAC]
We are the interested parties. We have Loretto Community and HOPE here tonight. Thank you. And we all worked hard on this, the New Mexico Environmental Department, Environment Department, and Los Alamos Laboratory all worked on this settlement agreement very hard and I really appreciate it.

[Interested Party Slide 3]
[SCOTT KOVAC]
Um, Slide 3. Read the outline of our presentation. We're just gonna look at some NF [nuclear facility] design issues, some other project costs, and some rad lab equipment costs. And, the, the empty, some empty space again at the Rad Lab.

[Interested Party Slide 4]
[SCOTT KOVAC]
Number 4. The Fiscal Year 2010 budget does not include a placeholder for construction. Um, it has been taken out. In past years it was, they were estimating $250 million a year for construction until they reached the end. Um, so it is, it is not a given as far as the budget request. Or how much the final, final nuclear facility will cost.

[Interested Party Slide 5]
[SCOTT KOVAC]
Number 5. The CMRR Project is now in its seventh year of planning and design.

[Interested Party Slide 6]
[SCOTT KOVAC]
When it first started, and I have the— the planning actually started back in 2002. Beginning of Fiscal Year '03, ah, the Lab got like $7 million to begin planning the new CMR replacement project. Today's mission is not clear. The CMRR cost keeps increasing, or has increased in the past. It was originally estimated at $500 million, plus $55 million for design back in '03, and now it [has] climbed over to, over $2 billion. We know there are seismic issues. We know there's reasons why this may have happened, but, um, it just seems to be going up. And actually the $2 billion is an unknown number. The actual total project costs at this time is unknown. At least to me.

[Interested Party Slide 7]
[SCOTT KOVAC]
At one point back in, between '05 and '06, Fiscal Year '05 and '06 budget, um. At one time back in '05, the nuclear facility had 45,000 net square feet of lab space. That was to account for some Hazard Category 3 material which was taken out of the project before the Fiscal Year '06 budget. So that knocked, ya'know, 20— 22,000 square feet of lab space out of the design. So a third of the lab space was taken out, yet the, yet the project increased by a third. Just in that one year there.

[Interested Party Slide 8]
[SCOTT KOVAC]
Um, the problem with all this budgetary stuff is that the, the, the size keeps, we're not really sure, ya' know, these presentations, the laboratory space is always given as 20 for the Rad Lab and 22,500 for the nuclear facility. Um, the [US] Senate authorization committee stated that the CMR, CMRR has significant unresolved issues, including the appropriate size of the facility. And, as, as Rick said, some of the decisions will not be made until the Nuclear Posture Review is completed at the end of the year.

[Interested Party Slide 9]
[SCOTT KOVAC]
Okay. Slide 9. Um, the, uh, the complex transformation Record of Decision [ROD] stated clearly that the same size, there's a little difference in size between a building for one, to produce one pit, and to produce 80 pits per year. Or even more. Maybe, even up to 125 pits per year. Nowhere does the ROD say that the NF [nuclear facility] is needed for less than 20 pits per year. One of our bigger problems is that the, uh, NNSA has not identified to date, today, has not identified a need to manufacture pits beyond about 2010.

[Interested Party Slide 10]
[SCOTT KOVAC]
Number 10. Yet the design work continues on this very large facility. Um, the need for the NF is not urgent. There are no— RRW [Reliable Replacement Warhead Project] has been cancelled. New design warheads are not on the horizon. Um, pit lifetime study found that pits last at least 85 years. There are thousands of pits in storage in Pantex. And the existing stockpile is certified annually.

[Interested Party Slide 11]
[SCOTT KOVAC]
Just a brief— Number 11 is just [an] intro for our DNFSB.

[Interested Party Slide 12]
[SCOTT KOVAC]
As was covered, the, there were some, uh, the, uh, DNFSB and NNSA were requested to limit some of the funding until certain concerns were met.

[Interested Party Slide 13]
[SCOTT KOVAC]
Number 13. One of the main concerns was the complex geologic setting under CMRR and the seismic issues there. Um, I've placed the approximate CMRR location over a hydrogeologic synthesis report map showing— All those different colors are different layers and different types of geology underneath there.

[Interested Party Slide 14]
[SCOTT KOVAC]
The Safety Board [DNFSB] did sign off on all the issues, and— Congratulations. And, I, uh, so I assume the $50 million will be released soon.

[Interested Party Slide 15]
[SCOTT KOVAC]
Number 15. But, just because the CMRR NF can be built is no reason that it should be built. And the, the design still goes on for a large facility.

[Interested Party Slide 16]
[SCOTT KOVAC]
Number 16. Um. I guess the question is, what effects would a redesigned NF have on the certification. What has, what has been done? What if, what if the powers that be, y'know, request a smaller nuclear facility? With less capabilities. Would you have to start over with your old design process that's been going on for seven years now? And what can, y'know, what can be done to save money on the project? And what other options has NNSA explored? Are some of my questions, which, kind of, kind of relate to construction here.

[Interested Party Slide 17]
[SCOTT KOVAC]
Um, I ran across this presentation, number 17, that I was hoping to get some explanation on. Um, at the bottom of this it has a LA-UR number, and I have the title also, I can give to you. It mentioned 350 new fissile material operations. Um, I'll ask that at the end of my thing, if anybody knows, if anybody can help me with that.

[SCOTT KOVAC]
Um, ya' know, it just seems like a lot. I mean, it just seems like the, the Lab is still designing this very large building. Okay.

[Interested Party Slide 18]
[SCOTT KOVAC]
Um, one of my questions was about the other, that I had sent in, was about the other project costs. And, um, I believe that the total to date is $49 million, um, in the, in the Congressional budget request. And, um, I'm not really sure [of] the break-out of that. So, I found that I've come up with a few things. One of them is Slide 18.

[SCOTT KOVAC]
The current design of the NF service road and stand-up distance will require the realignment of Parajito Road. These are all things that this facility is, driving the cost up because of where it is and where the size, y'know, and the size of it.

[Interested Party Slide 19]
[SCOTT KOVAC]
Number 19. Other costs. The nuclear facility was to be connected to PF-4 by an underground tunnel. Uh, there's a radiographic facility using that tunnel now, using the tunnel that they were going to tap into. Ahm, and it may still be there. The facility, that was supposed to be a temporary issue, and, um, the facility that that radio— radiographic project was supposed to move into is not being built yet. So this will likely require the CMRR project to design a new tunnel.

[Interested Party Slide 20]
[SCOTT KOVAC]
Okay. Number 20. Another cost would be this, the D&D of the old CMR. We wonder, um, what D&D means to everybody. If we know that, is NNSA still planning on demolitioning, demolishing, the old CMR? I ran across a, a presentation that stated that, ya' know, that D&D meant "decontaminate" and "decommission" the old CMR, upon CMRR completion. And it did not mention demolishing.

[Interested Party Slide 21]
[SCOTT KOVAC]
Number 21. Just a little history of where we are to date on the appropriations of the total CMRR project to date. So far, through Fiscal Year '09 we will have appropriated $438 million dollars, um, out of the estimated $2 to $2.6 billion.

[Interested Party Slide 22]
[SCOTT KOVAC]
Slide 22 is, that I made, um, this is just, representing, if, if in fact, as in, as in past Congressional budget reports, if in fact the nuclear facility received $250 million dollars per year for construction, what that would look like on a graph. And it looks like the black part is the, um, the, how much that is, compared to what has already been spent.

[Interested Party Slide 23]
[SCOTT KOVAC]
Okay, number 23. Now I ran across a, uh, a slide show from Mr. Rick Holmes, and, um, and I notice, I recognize some of—

[RICK HOLMES]
Was it good?

[SCOTT KOVAC]
It was very good, and you actually had some of your— some of these slides in here.

[RICK HOLMES]
I was consistent, wasn't I?

[Interested Party Slide 24]
[SCOTT KOVAC]
Yes. You were very good. And, um, one of them that you didn't have in here was this one, my slide 24, is from Rick's presentation listing the actual kind of, another break out of the work elements of the equipment installation schedule or the equipment installation. A couple of years ago the equipment installation was called the special equipment installa—, special facilities equipment. And now it's just called equipment installation, and, ya' know, some of these things on this list, y'know, possibly are not so special, like parking lot. Okay. But I was, I wasn't very, I wanted to make sure that everybody caught that the equipment for the rad lab was, was gonna be $199.4 million estimated today, which is more than the cost of the construction of the building. Of the rad lab itself.

[Interested Party Slide 25]
[SCOTT KOVAC]
Um, in, 25 lists what the Congressional budget request lists as equipment, uh, gloveboxes, hoods, ACMC [actinide chemistry, materials characterization] instrumentation, security, facility tie-ins. Doesn't mention furniture or parking lot.

[Interested Party Slide 26]
[SCOTT KOVAC]
Back to the, back to the CMR. On Slide 26. Um, NNSA has requested [LANL] to move out of the CMR, the old CMR facility as soon as practicable. If in fact LANL and NNSA, if in fact LANL is able to do that in the next year or so, and if in fact the CMRR Building takes ten years or nine years to complete, there's gonna be a gap, up to a nine year gap between the closure of the CMR, the old CMR and the new CMRR completion. My point is that, ya' know, the operations that are going on during this nine year gap, is there no reason why they just can't continue to go on wherever they are during that gap.

[Interested Party Slide 27]
[SCOTT KOVAC]
Um, another question I had, in the, on Slide 27, the Fiscal Year 2010 Congressional budget request still is listing that four out of 26 labs when, when four out of 26 labs get built or get their

equipment in 'em, then they will be considered done with the RLUOB [Radiological Laboratory Utilities Office Building]. And in previous public meetings, we had, we had a higher number, like nine or so. And I was wondering what the difference between those might be. It's, ya' know, when does that get updated? Is the, is any of the lab equipment for more than four modules? Is that in some other budget? Um, I'm just wondering what that is.

[Interested Party Slide 28]
[SCOTT KOVAC]
Number 28 shows a picture of, of uh, just kind of the artist's rendering of— It's actually a very good detailed drawing— of the rad space with 40, with four lab modules outfitted, and the space that's still left there.

[Interested Party Slide 29]
[SCOTT KOVAC]
Um, once again, we think, we think that the nuclear facility stands in the way of LANL's future. Um, LANL should be expanding, expanding, should be getting more into science. We need to, we need to seek other missions rather than building for further entrenchment in the shrinking nuclear weapons business.

[Interested Party Slide 30]
[SCOTT KOVAC]
And today our president said, "We will complete a nuclear posture review that opens the door to deeper cuts and reduces the role of nuclear weapons." So I'm just hoping that, y'know, I'm wondering when the design of a smaller facility will start.

[SCOTT KOVAC]
Thank you. Any questions?

[BRUCE MACALLISTER, FACILITATOR]
Questions? Comments?

[RICK HOLMES]
I heard a number of questions.

[SCOTT KOVAC]
I have a question.

[RICK HOLMES]
No, I don't have a question, but I think— This is Rick again— I read that as a number of questions in here. And I, I think you'd like me to help you with some of these?

[SCOTT KOVAC]
Sure. If it's okay.

[RICK HOLMES]
We've got time today.

[SCOTT KOVAC]
I just—

[RICK HOLMES]
No, I think— We've got time now. We can do that. 'Cause I heard a number of things in here, some of which is, — I don't know who that, what that presentation is to the EFCOG [Energy Facility Contractors Group] guys, but—

[Laughter]

[RICK HOLMES]
So, um, a couple of points. And I'm, I'm gonna try to help clear some, some facts in here to help a little bit. Um, on the building size itself. Yes. There have been a number of studies looking at the building size. But I will tell you, knowing how the building is built, the ultimate footprint for the building is not driven by the number of laboratory modules in the nuke facility. It's driven by the infrastructure in the basement that's below it to support the laboratory modules. Now there is some point that, if you cut out an entire wing, or thirty percent, you might reduce the ventilation requirements to a point where you could postulate a smaller size building. But, for the most part, — A couple of points: one is, all of the analysis says that the building size is not driven by pit production. And so whether you have one weapon in the stockpile or you have to do all these missions, or if you are doing other plutonium science. Because, just because we say, "No nukes," doesn't mean everybody else is gonna say, "No nukes." And after the shot went off in, in Korea, the airplane that collected air samples came here for analysis. And so somewhere that science has to be done. And there's a whole host of other things that the program people can much better articulate than I, in terms of all the other things that are science-related, they are actinide science, chemistry related, that happen in some sort of a laboratory structure. So, building size as it is today— not driven by the number of pits. That was, that was recognized, and also documented in what I'll call the Perry Commission Report that came out last Fall. Is another source so you don't have to believe me.

[RICK HOLMES]
Um, where I do say kinda "Believe me" is, if you took out a few of the labs, the buil— the lab— you'd have free space on the laboratory floor. But the building footprint would not change. Because it's driven by the other infrastructure to support— And at some point, if you went down and said, "What if I only had one laboratory module," obviously you'd have a smaller facility. But, for the, for the sizes that people have postulated today, building footprint is not driven by the number of labs. That's the two parts of that on building size. So, yes, it has been looked at. Lot of external people have looked at it, too, in terms of what drives the footprint for the building itself.

[RICK HOLMES]
Um, on the road. And let's talk about OPC [other project costs] costs. And I apologize. I intended to talk about that in the equipment installation, and, and forgot. And so thanks for reminding me. Other project costs are the things that are not capital equipment. Construction, design-related. Start-up, operations activities, certain procedure development. Those kind of

things are defined as “other project costs.” And those are— that budget that you saw is part of the rad lab equipment installation because from today, I own the building. And I have people who have to operate and maintain the equipment in the building for the next two years before I give it to the Laboratory for its use. And so those kind of things show up in “other project costs.” Your charts on Parajito Road has to move and other things, those are in the capital, or the TEC [total estimated costs] portion of the budget. They are not OPC funded, other-project-cost funded. It’s operations, start-up, readiness reviews, those kind of things are OPC costs.

[RICK HOLMES]
The road, if you— The only way you don’t have to move the road is if you never build any nuke facility. The size of the nuke facility is not what’s pushing the road. It’s the size of the security perimeter fence and the need to keep offset so that a portion of it can stay around PF-4 while we do construction. And, since I’ve been here, people didn’t wanna recognize it necessarily, but the security perimeter fence would have touched the road, even in the old size of the nuke facility. Um, they got de-scoped. Go do that work. Finishing that perimeter fence, dealing with the road, a substation is also part of this project scope because it’s related to having the infrastructure necessary so that the building can ultimately be completely usable.

[RICK HOLMES]
So, and we are not moving the road far. It’s essentially gonna move next to itself. And we are doing the environmental studies now. And make sure that we are doing the right thing in terms of archeological and environmental and other kinds of studies to go and see if that make sense. And I have a preliminary design that comes to me shortly that the next time we are here we can talk about what that means and where we are on that process.

[RICK HOLMES]
But those are necessary things that you have, but those are not other project costs.

[SCOTT KOVAC]
Okay.

[RICK HOLMES]
Um,—

[TOM WHITACRE]
Number of modules.

[RICK HOLMES]
Oh, the number of modules in the rad lab. So, there are 26 modules in the rad lab. A module is twelve and a half feet wide and sixty feet long. And, modules combine to make up a laboratory. So you may have a one-module lab, or you may have a three-module laboratory. Okay. So sometimes you hear the other ones. So let’s talk in terms of modules as the unit of measure. So there are twenty-six total in the rad lab. The four are outfitted under the facility contract. And that was in one of the pictures that I showed you, which was— And those four essentially have college chemistry benches in ‘em, and a, an industrial fume hood. Because they are just proof that, “Yes, you can build, outfit a laboratory, or a module inside this building.” In the rad lab

equipment installation scope, I make ready all of the rest of the modules, so that twenty-six are ready. I install equipment in nine. And I'm gonna explain where the other thirteen go in a minute. Okay, so at the end of the equipment installation, all of the lab modules are ready with fire protection, ventilation, the seventeen different flavors of air and water that go to gloveboxes, all those things are done.

[TOM WHITACRE]
Including coatings?

[RICK HOLMES]
Yeah. Including coatings. So I am buying the equipment and installing the equipment in nine modules in the equipment installation. So that means thirteen are totally equipped, ready for use. The other thirteen are envisioned to be space to stage gloveboxes to support the nuke facility construction. And in actuality, and, and I can bring it the next time, because that's not a classified thing— I can show you the layout of the rad lab in detail— is there's not a lot of other equipment that goes in those other thirteen modules. And there's not a lot of capacity. There're always intended to be staging spaces to move new instrumentation, new things, into the nuke facility ultimately. So the plan is, at the end of the equipment installation, everything is prepared. Equipment is fully installed and operational in half, and the other half is used as, as staging space for nuke facility construction. And if you've never built a nuke facility— you're at some point in that continuum you would put the benches in those labs 'cause that's really all that's in there. There's not a lot of other equipment.

[RICK HOLMES]
Make sense?

[SCOTT KOVAC]
Yes. Thank you.

[RICK HOLMES]
Um, I don't know anything about 350 new fissile operations. We'd have to look at that LA-UR [Los Alamos unlimited release] number—

[SCOTT KOVAC]
Okay.

[RICK HOLMES]
—and look at it. Um, — But we talked about the tunnel. The tunnel, we are, it is part of the scope of the project to put in a new tunnel between the nuke facility and PF-4. And it's not driven because interim radiography is in the current tunnel. The current tunnel is too small. The, the plan is that solid waste from PF-4 will be processed out through the nuke facility and so therefore that material wants to be moved by forklift. And the current tunnel is not big enough for a forklift. And also, because it's part of today's state-of-the-art design, etcetera, you'd have to go through a very large qualification process for the current tunnel if you tried to append to it and use it, and it just became one of those that just said, "This is not very smart." And so, there is a new tunnel, but not driven because interim radiography is planning to stay there forever, even

though it may— I'm not saying it's not. Okay. Because I don't control that world. But, the new tunnel is required because of size, and requirements. And it will essentially wind up being adjacent to the existing, the existing tunnel. We are gonna lay out, we have already thought about where it would touch PF-4, etcetera. And have worked out kinda some of the details if somebody said, "Go do this," you'd have at least a strategy to go and do that.

[RICK HOLMES]
Um, D&D of CMR is part of the overall requirements base, but I'm not the guy responsible for it. So, and I'm not sure the guy responsible for D&D at CMR has been tapped on the shoulder yet and [told], "Tag, you're it."

[SCOTT KOVAC]
What do those two Ds stand for?

[RICK HOLMES]
Ahm, "decontaminate" and "decommission."

[SCOTT KOVAC]
Um hmm. Okay.

[RICK HOLMES]
So I don't know whether there's a third D in it ultimately or not.

[SCOTT KOVAC]
Sometime I've heard, seen, up to five Ds.

[Laughter]

[RICK HOLMES]
Well, and to be honest with you, part of that is going to be driven by funding, right? Somebody's gotta say ultimately, if you have a nuke facility or if you have missions all go away and it's time to take that apart, okay, somebody has to put money in the budget to make that happen.

[SCOTT KOVAC]
Um hm.

[RICK HOLMES]
Right. And that's gonna be somebody besides us.

[SCOTT KOVAC]
How about the gap between the closure of the old CMR and the finish of CMRR?

[RICK HOLMES]
I'm not sure of the exact date when CMR closes.

[SCOTT KOVAC]

Uh huh.

[RICK HOLMES]
And so, we'd have to get somebody to get back to you and say, "What is that, what is that strategy? If there is a gap, what're you going to do about it? Or is there not gonna be a gap? If there's not gonna be a gap, what are you gonna do about it?" Um, it will take longer to build the new facility. And part of it is driven by how much money you have in the pipe line to go forth and go execute, if someone says go forth and do it.

[RICK HOLMES]
Um, do we have the same scope on rad lab equipment installation, so it hasn't changed from July? And that is a, that is a commitment. So, my commitment, my team's commitment, the Laboratory's commitment is to deliver that scope. And the scope is a little bit different than just special facility equipment. It is essentially says, "Do all of the infrastructure necessary to make that facility usable," from that perspective. So there are other things that have been put into that other than just "buy gloveboxes." And there was some gaps that, that weren't real clear in how things were done. The security infrastructure, to make sure that the badge readers are in the right spot, and the networks that have to be put inside of the building are done under that phase as well. So there's a whole "other things" that happen inside of that structure. So furniture is a pretty small chunk of the budget, and trust me, I'm a tightwad. Doesn't seem that way, but I am. Said, "Hey, all you people come with a chair. That is an ergo chair." And so your chair has wheels, bring it with you kinda thing, so we can be efficient as we go forward and do some of those kind of things.

[RICK HOLMES]
Ahm, ah, what else? Empty space we talked about. You're still the interested parties. And, as I said before, need is not— I'm told, if someone tells me to go do it, I make sure that we do it right. At least we try. I think, I hope I hit them all. If I left one out, let me know.

[SCOTT KOVAC]
Okay.

[BRUCE MACALLISTER, FACILITATOR]
Thank you. Steve, do you have any follow-up on that?

[SCOTT KOVAC]
Scott.

[BRUCE MACALLISTER, FACILITATOR]
Er, Scott?

[SCOTT NOVAC]
Not right now. Thank you.

[BRUCE MACALLISTER, FACILITATOR]
Other questions? Comments? Sir?

[RICK HOLMES]
Jay has—

[JAY COGHLAN, NUCLEAR WATCH NEW MEXICO]
Jay Coghlan, Nuke Watch New Mexico. Um, Rick, I found your brief statement that samples from the North Korean tests came here, um, that's an interesting factoid.

[RICK HOLMES]
I didn't learn that at the Lab. That was on the news.

[JAY COGHLAN]
Okay. Thanks. I missed that for some reason I guess. Guess it was air samples, right?

[RICK HOLMES]
It was air samples.

[JAY COGHLAN]
Yeah. Ahm. So. that figures. That came here to Los Alamos. And I would certainly agree that this nation's going to need nuclear forensics for a long time. That's, I think. that's without question. It doesn't, however, justify the CMRR project, and particularly the, uh, the nuclear facility. Um, if I have my Lab history correct, I think the radio chemistry lab at TA-48 historically did the, most of the shot debris analyses from the Nevada Test Site. Where, where were the samples analyzed? The North Korean samples. What facility were they analyzed [at] here at Los Alamos? Do you know?

[RICK HOLMES]
I don't know. I don't know. I just bring that up— This is Rick again. I bring that up because the, the list of things, we keep talking about this facility. And again, Steve [Fong] would tell me to shut up because it's not part of the scope of this discussion. But, the mission of this facility is not just about pits and pit production. There's a whole thing— a whole lot of science that's done involving plutonium and the actinide series of elements on the periodic table that need a place to go do it. Now, [it's] beyond me to decide whether that's a nuke facility, some other structure somewhere, twenty-two trailers hooked up, environmentally compliant, etcetera. Whatever that means, somewhere that's the mission. And right now, my guidance is, is to prepare a facility to perform those missions. And so, there are a whole lot of other things that drive it, as I've been told to be ready to do today. And to answer Scott's point a little bit about the design still continues, yeah it's taking time because we are not doing it as efficiently as we could because of— There's been a lot of time even since I've been here when we've been in this indecision space. And so, that's probably an okay— It's an "is," right? So therefore it's the world we woke up in this morning. And so we'll deal with it. But it's, it hasn't been an efficient execution of the design. I think, based upon where we are, we are in pretty stead, so that if somebody does say, "Go do it," you can go forward and do it. I do know the consequences of stopping and trying to re-start. There's a whole host of lessons in these kinds of structures, the MOX [mixed oxide] facility for example, out in the, on the East coast, where, if you look up the phrase "Don't do this," there's a picture of, there's a picture of that. And so, had we stopped, some might say

you'd be, you'd never answer these questions, you'd never be ready *if* it does become a political decision that says, "Yes, go do it."

[KEN LAGATUTTA]
Ken LaGatutta. Just as a commentary on what you got done saying, just because there might be things that are unknown about the actinides and actinide chemistry doesn't mean that we desperately need to know them. Um, and, and so there's a mission part of that need. And we need to decide what the mission is. Forensics is a part of that need. But, how much do we need to spend on learning as much as we can learn about actinides. And can we justify it all by forensics? Or do we really need to have a better bomb?

[RICK HOLMES]
We don't know.

[KEN LAGATUTTA]
We don't know.

[BRUCE MACALLISTER, FACILITATOR]
Ma'am?

[PENELOPE MCMULLEN]
Penelope McMullen. And as a follow up from Scott's statement that we seek, or it's time for Los Alamos Lab to seek new missions, I have a statement from the Loretto Community. Um, that the majority of US citizens no longer want our tax money to go toward nuclear weapons production or maintenance. The majority of the world now thinks nuclear weapons are outdated and, um, even their production is harmful and useless. The nuclear weapons era is ending, so it's a waste of taxpayer money to do any further building for plutonium pits or nuclear weapons work. It's time for the Lab officials to wake up to that fact and move on to other projects. There are more pertinent projects for our time in history. The Loretto Community wants our nation to honor Article VI of the Nonproliferation Treaty and dismantle all nuclear weapons now. Thank you.

[BRUCE MACALLISTER, FACILITATOR]
Comments? Responses?

[UNIDENTIFIED PERSON]
There's one over there.

[JEANNE GREEN]
Jeanne Green. Um, my question is, is there a department at LANL that is looking at the idea of shifting the mission to green energy research and global warming research, and, if so, how much money is being put into that?

[RICK HOLMES]
This is Rick. I don't, I don't know the specifics. We'll have to get that answer back to you.

[Some unintelligible voices off microphone.]

[DENNY HJERESEN, RISK REDUCTION OFFICE, ENVIRONMENTAL PROTECTION DIVISION, LANL]
Denny Hjeresen, the Environmental Protection Division. Ahm, the Lab has a vastly expanding program. It's gone from about $25 to $30 million dollars in renewable energy research up to around a $150 million dollars in renewable energy research just in the last two years. So, it's a growth area for the Laboratory and there are a lot of scientific programs looking at it and working on it.

[JEANNE GREEN]
What about global warming?

[DENNY HJERESEN]
Global warming too. The Lab has been one of the leaders. One of the functional uses of our high performance computing system is global modeling, and it has been. The Lab has been one of the national leaders in climate change research. And as a participant in the international panel on climate research for the last decade. Our computers are a mainstay in the modeling program.

[BRUCE MACALLISTER, FACILITATOR]
Other—?

[JEANNE GREEN]
Could this design that you are doing for this, for the new building, be transformed to this other department of researching climate change and renewable energy? Or is it, is there no way that it could be used if it is built and the mission changes?

[RICK HOLMES]
This is Rick again. Ahm, you know the lab modules are designed for flexibility. And so you might not need the extent of the infrastructure in the building because of, depends upon what you are doing, but, um, the gloveboxes, y'know, have ventilation systems in them, so if it's work that requires gloveboxes and ventilation system, in theory, yes it could be done inside that building. You might have extra infrastructure because you built something for plutonium and if you are handling something less toxic or hazardous, then you could get away with less, if that were the case. But, Laboratories are pretty flexible, by, uh, by intent.

[BRUCE MACALLISTER, FACILITATOR]
Okay.

[JAY COGHLAN]
Jay Coghlan, Nuke Watch New Mexico. Um, in our shop we follow the budgets pretty closely. The Congressional budget request, and specifically, the lab tables, and I can't find any money in there for renewable energy R&D at Los Alamos. There's a larger budget category first that's energy efficiency and renewables. And there is some money underneath energy efficiencies. But I'd really like some documentation, um, of the monies that are going into renewable energy R&D at Los Alamos. One thing that we find really opaque, are budgets for Laboratory-directed research. So I can't vouch as to what may or may not be in there. But, but I am certain that there are no monies in the Congressional budget request for renewable energies under the budget

categories that you find in the lab tables of the Congressional budget request. So not necessarily now, but sometime in the future, please enlighten me.

[RICK HOLMES]
This is Rick. We'll pass that along.

[BRUCE MACALLISTER, FACILITATOR]
Yes ma'am?

[MARILYN HOFF]
Marilyn Hoff. I'm curious in this renewable energy research. If there is some kind of built-in prejudice on the behalf of the Lab in favor of nuclear power as one of the solutions to our clean energy requirements, or, or if in fact, um, what fraction of the Lab's budget is devoted to this. If that is, um, if that is really toward renewable energy, or if nuclear power is part of the package that you are studying.

[DENNY HJERESEN]
Let me make clear that that figure is for the energy research at the Lab. It's not limited to renewable energy. The overall focus, though, from the administration, and the focus here hasn't been on the development of nuclear energy. There are portions of that program, but a lot of the work that is going on right now is in distribution, smart grids, modeling, developing new sources. So nuclear is clearly part of our expertise at the Laboratory, so it would be an area of interest, but it is not the sole area of interest. What I think that we can do is provide from— Terry Wallace, the principle associate director for science, has some great presentation materials on what the energy programs at the Laboratory are and what its objectives are. So I'd glad to help provide those to you.

[BRUCE MACALLISTER, FACILITATOR]
Just for our transcriber, your name?

[DENNY HJERESEN]
Denny Hjeresen, ENV Division.

[BRUCE MACALLISTER, FACILITATOR]
Sir?

[PHIL WARDWELL, LABORATORY LEGAL COUNSEL]
This is Phil Wardwell in Legal. Are you requesting that a presentation like that be done at the next six-month meeting.

[MARILYN HOFF]
[Unintelligible, speaking without microphone.]

[PHIL WARDWELL]
Because it will take some of the time. Is that the way you want to use some of the time?

[MARILYN HOFF]
[Unintelligible, speaking without microphone.]

[PHIL WARDWELL]
You do? I'm just asking because—

[MARILYN HOFF]
I wouldn't be the only person to—

[PHIL WARDWELL]
I understand.

[MARILYN HOFF]
[other words off microphone]

[PHIL WARDWELL]
Mine too, but— Do you want to consult among yourselves and, uh, let us know what you're, what you— I sense that there is information that we could take y'know, ten minutes, twenty minutes? Ten? [laughs] Just one thing I personally notice, and I'm not a scientist. I'm a lawyer. One of the Lab [Directed] Research and Development projects was a substitute for platinum as a catalyst in a fuel cell. Now platinum, I mean, is for jewelry. It's very expensive. But if you could have a fuel cell that would store renewable energy, which is a big problem, ahm, and this is a much less expensive substitute, then you are on your way. You can imagine the consequences. This is something the Lab is working on too. This is nothing to do with nuclear, necessarily. It has to do with fuel cells for your car, for your cell phone, for your house, etcetera. So I just want you to understand there's just a lot of things going on with regard to energy.

[SCOTT KOVAC]
Could I? Marilyn,— This is Scott with Nuke Watch. Hi Marilyn. If you have a, get with us before the next meeting, like, y'know, catch up with us in February or sometime and we can work out the details. And that goes for anyone else in the public, if you have a particular question or something you'd like to see at a meeting like this, we can probably work it out. Thank you.

[DIANE WILBURN]
If you're interested— Diane Wilburn, Ecology and Air Quality Group. Another thing you may be interested in: the Laboratory with the Stimulus Act has received about $10 million dollars for geothermal projects and projects to reduce carbon dioxide emissions into the atmosphere. And you can see all that if you go to a website. It's "stimulus.LANL.gov." And then you can also look at the State of New Mexico's web page on that and get some more information. And just another thing that may interest you is, the Lab partnered with the State of New Mexico's Smart Group proposal. So those are some other areas of energy that we are involved with.

[KEN LAGATUTTA]
Ken LaGatutta. The LDRD program is a, is an old Lab program. Been around for a long time. I think they presently they are spending about a $100 million dollars in LDRD, and that supports, I think roughly 200 FTEs. But my understanding of LDRD these days is that it is mostly directed

to helping the weapons program. Ahm, and there's always been an irreducible part of LDRD which was, uh, um, directed toward those who could imagine the most outre, most useless, most in-, inherently impractical projects, but very exciting for scientists, like, what's going on in black holes? and what's going on with dark energy. But that's a small minority, and, uh, I believe. But I think, more and more— and I seem to have read in the Lab's own publications— in fact there's a *Physics Today* article, which, uh, about this subject. That the Lab is trying to push LDRD more and more toward weapons-related activities. They've always had about 50% or so which was directed in that way. But, I think, supposedly more and more are going in that direction.

[BRUCE MACALLISTER, FACILITATOR]
Okay, it seems like we're wandering afar from our original scope, but we'll just, we've got time, so—

[MARILYN HOFF]
Marilyn Hoff. I guess I'd like to go back to the CMRR facility. Um, I'm, I am, I hear all this happy talk about alternative energy and things like and of course, um, y'know, as it's been pointed out, there is very little itemization of this in the budgets. So, um, getting back to what seems to me still to be the hoped-for purpose of the CMRR building, the manufacture of plutonium pits— I would like to know how this building solves all the problems that were rampant at Rocky Flats. Because in fact this building will be taking over from Rocky Flats, um, this function, and Rocky Flats, as we know, had countless fires and many, many problems, and um, and a whole lot of pollution going on from however the facility was designed or run. And how is this in any way going to be an improvement on that because, um, LANL too is, um, upwind of a whole lot of population of New Mexicans.

[RICK HOLMES]
So Rocky Flats was, as I understand it, a— because I remember flying over it when flying into the old Stapleton Airport, was for pit production. No pit production occurs in either the rad lab or the nuke facility. The chemistry and characterization and analysis of product and other things— that's what occurs inside of the nuke facility and inside of the rad lab. If there is any pit production, that pit production equipment and assembly lines are inside of the existing PF-4, which is already part of the TA-55 area. So, specifically, the flippant answer is, it's taken care of because my buildings don't do pit production. But, the other thing, I think, to take into account is that the state of the art in terms of understanding safety, engineering safety into facilities as they go forward, is part of my project team's scope. So, dramatically different set of requirements and understanding of those accidents. We talked before about what could occur and how did you account for those and those kind of things. Way beyond whatever might have been done back in the days when Rocky Flats was first introduced. So, two parts: Safety built into design. That was a big part of the certification process. The second part is: These buildings don't replicate what was at Rocky Flats. We don't— There is no pit production, no pit production equipment, not part of my scope, not part of my contingencies inside of either the nuke facility or the rad lab. That work occurs in PF-4.

[TOM WHITACRE]
Yeah, just to add to that, those accidents you talked about at PF, at Rocky Flats and those incidents, those are lessons learned that went into the safety analysis for this project. They

looked at a lot of those accidents that happened, the fires and so forth, and how they propagated through the system there and what kind of damage was done. Those types of information were used as the basis for the safety analyses that are being done for this project right now. So we have [to] take those lessons learned from those events.

[JAY COGHLAN]
Jay Coghlan Nuke Watch New Mexico. You know Rick, I like your presentation and I got a lot of confidence that you're a straight-shooter, um, y'know, and I believe you when you make the claim that the nuclear facility is not a production facility. Um, but then I'll go on to argue some. And I especially didn't like it— I actually think the Laboratory made a conscious effort about a year ago to start describing the nuclear facility as "not a production facility." And that's true only in a narrow technical sense. Without, uh, actinide special nuclear materials, analytical chemistry, and materials characterization, you are not gonna have pit production. AC and MC are absolutely integral parts of, they're both the precursor and the quality assurance, they are kinda the "before" and "after" and "during" pit production. So, y'know, it depends entirely on how narrow a definition you give pit production. If you are talking about actually forming the hemispheres and welding them or net casting or the glovebox work and all that stuff, you are narrowly correct. But that is not the entire truth. The nuclear facility is very much designed to be an integral part of pit production and is therefore a pit production facility in addition to the other nuclear operations.

[BRUCE MACALLISTER, FACILITATOR]
Okay. Okay. Just a point: we've got five, less than five minutes, so— and I will end the meeting on time. My responsibility, so—

[KEN LAGATUTTA]
Okay. Ken LaGatutta. Just a point. At PF-4 they, they do build pits. And they've built, they've built a few. At least one. And, uh, uh, I wonder if they are using one of the lessons learned that came out of Rocky Flats. I know they, all that machinery from Rocky Flats came down to Los Alamos. And they may be using some of that at PF-4. I don't know. But, but uh, uh, I know they are using some new technologies. But I, but I wonder if they are really making use of all the lessons learned.

[BRUCE MACALLISTER, FACILITATOR]
Any comments, responses?

[TOM WHITACRE]
[Unintelligible words off microphone]

[RICK HOLMES]
This is Rick. I don't either. So.

[BRUCE MACALLISTER, FACILITATOR]
Okay. Um, again, we've got about three minutes left. So we've got time for another question or two, if there are any. [Pause] Other comments? Anybody wanna lob that last zinger?

[Laughter]

[BRUCE MACALLISTER, FACILITATOR]
Okay. All right.

[JEANNE GREEN]
I do.

[BRUCE MACALLISTER, FACILITATOR]
You get the dubious honor.

[RICK HOLMES]
Come on, hit me again.

[Laughter]

[BRUCE MACALLISTER, FACILITATOR]
Make it good.

[JEANNE GREEN]
Okay. Well, the fact that Denny was saying that $150 million is going toward energy research and development, including nuclear, I guess, um, and $2 billion is necessary to build this new facility, this one new facility, um, weights the whole thing toward nuclear weapons production and stewardship. And, um, I would like to see a change in direction. And I think most people in this country and the world would like to see that change happen. Thank you.
[BRUCE MACALLISTER, FACILITATOR]
Thank you. Anything else? Well thank you very much for your courtesy and for working with us in terms of one-at-a-time and [Recording tape turned off. Last few words are missing.]

[The meeting was adjourned at 8:30 pm.]

CERTIFICATION

I hereby certify that the foregoing is a true and correct transcription of the audio recording of the public meeting on the Chemistry and Metallurgy Research Replacement project on September 23, 2009, at the Hilltop House, Los Alamos, New Mexico.

/s/ Morrison Bennett
Transcription completed January 26, 2010.

III. Presentation Slides – CMRR Project

Chemistry and Metallurgy Research Replacement (CMRR) Project

Welcome

CMRR Project Update

Los Alamos, New Mexico
September 23, 2009

Bruce MacAllister, *Meeting Facilitator*

Los Alamos NATIONAL LABORATORY EST. 1943

NNSA National Nuclear Security Administration

LA-UR 09-06065

CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

Agenda

6:30 - 6:40	Welcome Background and Purpose Ground Rules Introductions	*Bruce MacAllister*
6:40 - 7:10	CMRR Project Overview & Update	*Rick Holmes*
7:10 - 7:30	Questions/Comments	*Bruce MacAllister*
7:30 - 8:00	Settlement Parties Presentation	*Settlement Parties*
8:00 - 8:25	Final Questions/Comments	*Bruce MacAllister*
8:25 - 8:30	Closure, Thank You and Adjourn	*Bruce MacAllister*

Background and Purpose of Meeting

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

Ground Rules

- Listen respectfully
- Share the conversation time with other participants
- Turn cell phones off or place on mute
- No personal attacks
- Topic requests for future meetings can be left on the flip chart at any time
- Speak into a microphone
- Say your name each time you speak

Chemistry and Metallurgy Research Replacement (CMRR) Project

CMRR Project Update

Los Alamos, New Mexico
September 23, 2009

Presented by
Rick Holmes, LANL
CMRR Division Leader

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NNSA National Nuclear Security Administration

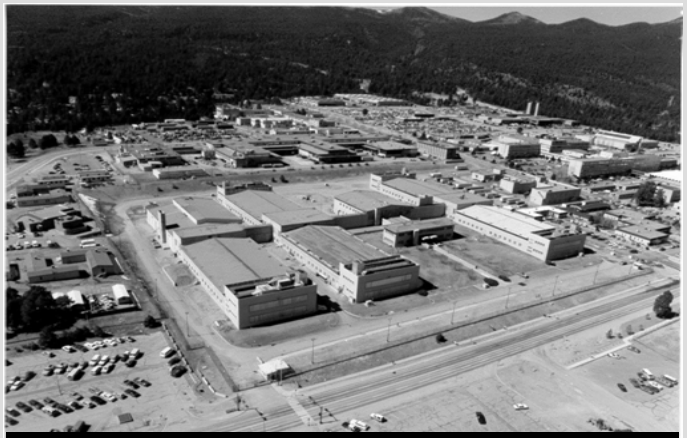
CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

LA-UR 09-06065

CMRR Mission Need Statement

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

1949 CMR Construction Site



Existing Chemistry and Metallurgy Research Building

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CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

Analytical Chemistry & Material Characterization (AC/MC) Capabilities

CMR's AC/MC capabilities support core LANL Programs

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

CMRR will replace CMR's AC/MC capabilities and…

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

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CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

CMRR – Project Scope

CMRR Project

Radiological Laboratory/Utility/Office Building (RLUOB)

Facility Performance Baseline ($164M TPC):

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

Status: Near completion

RLUOB Equipment Installation (Performance Baseline approved)

- Operational equipment to complete functionality of RLUOB

Status: Authorization granted in July 2009

Nuclear Facility (NF)

Baseline under Development:

- CMR Chemistry Replacement Capability
- Security Category 1/Hazard Category 2
- 22,500 square feet lab space
- Special Nuclear Material storage (6M tons)
- Special Facility Equipment

Status: Interim Design

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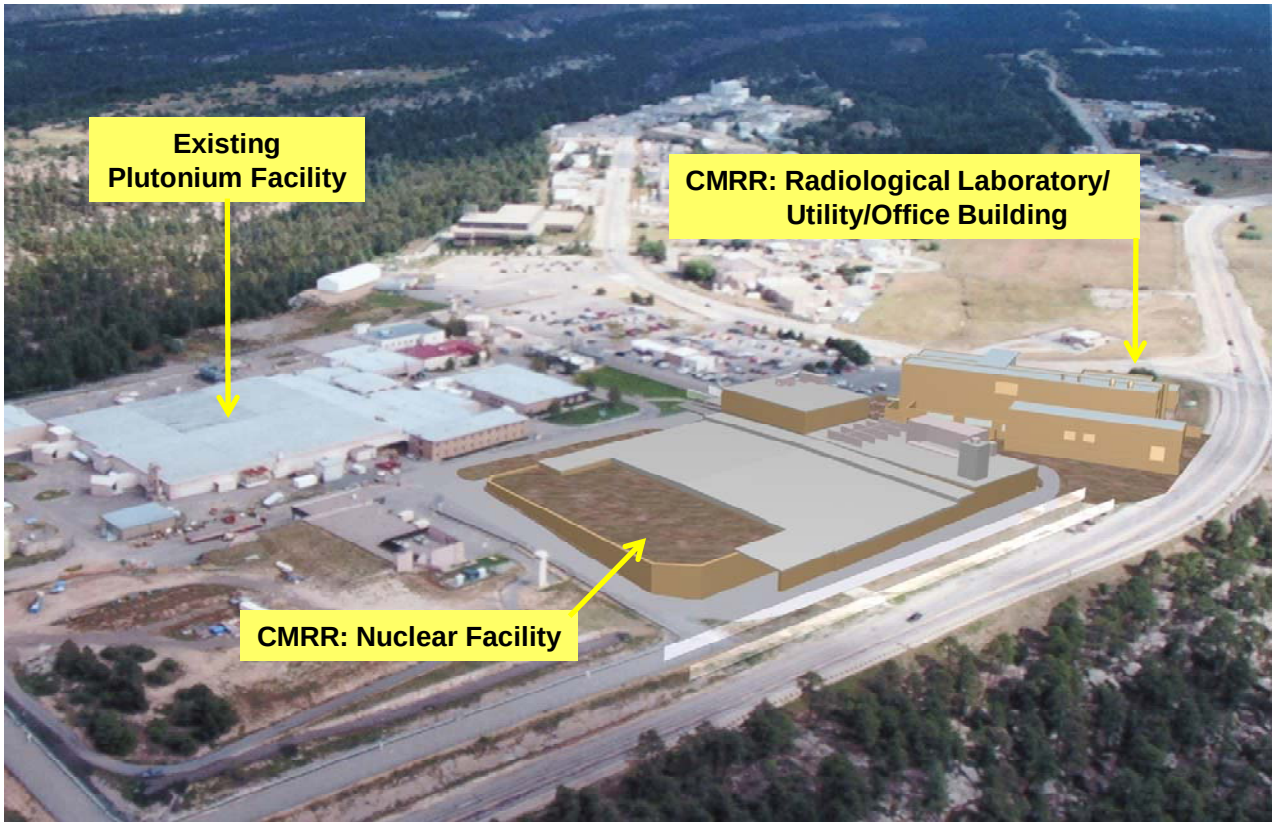
CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

CMRR at Technical Area-55



NNSA Headquarters Direction

- NNSA HQ Direction
  - Complete RLUOB within approved performance baseline
  - Prepare RLUOB Equipment Installation (REI) work activities for procurement/installation approval and begin authorized work as funding is available
  - Resolve all DNFSB “certification” issues (more on this topic later in this presentation)
  - Complete preliminary Nuclear Facility design/safety efforts and prepare for its dedicated final design phase
  - Maintain continuity for Nuclear Facility design teams
- Allocation of FY09 budget authority - $97.2M

High Level Schedule

Complete

- 2002 CMRR Critical Decision (CD) - 0 (*Approve Mission Need*)
- 2004 CMRR EIS Record (ROD) of Decision signed
- 2005 CMRR CD - 1 (*Approve Alternative Selection and Cost Range*)
- 2005 CMRR RLUOB CD - 2/3 (*Approve Performance Baseline/Construction*)
- 2007 CMRR RLUOB Equipment, Final Design Authorization
- 2008 NNSA Complex Transformation Supplemental EIS ROD

This Year

- 2009 CMRR REI CD-2/3
  (*Approve Performance Baseline/Procurement Installation*)
- 2009 CMRR Nuclear Facility Safety Basis and Design Integration, and Technical Reviews
  - DNFSB Certification safety issues resolved
- 2009 CMRR RLUOB Facility Construction substantially complete
- 2009 Congressional Commission on the Strategic Posture of the US (Perry, Schlesinger)
- 2009 Nuclear Posture Review (December)

Future Years

- 2010 CMRR Nuclear Facility final design authorization
- 2011 CMRR RLUOB staff occupancy
- 2013 CMRR RLUOB Radiological Laboratory operations
- 2011~20XX CMRR Nuclear Facility construction

Radiological Laboratory/Utility/Office Building (RLUOB)

Radiological Laboratory/Utility/Office Building

- Over one million man-hours worked with no lost time accidents
- Leadership in Energy and Environmental Design (LEED) – Certified "Silver" award anticipated
- Nuclear Quality Assurance (NQA-1)

Los Alamos NATIONAL LABORATORY EST. 1943 NNSA CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

RLUOB Progress Photos

RLUOB Progress Photos

Los Alamos NATIONAL LABORATORY EST. 1943 NNSA

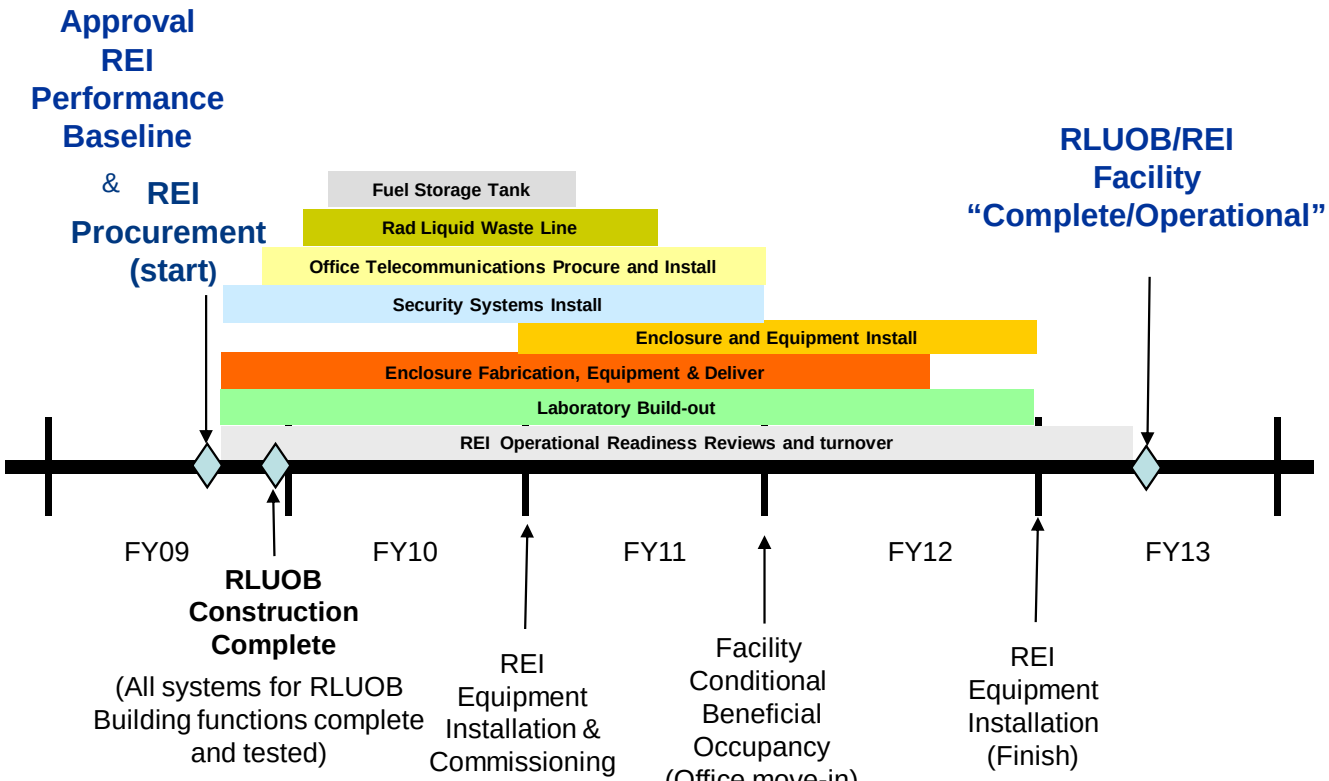
CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

RLUOB Progress Photos

RLUOB Equipment Installation (REI)

RLUOB Equipment Installation Plan

Total Estimated Cost - $199.4M



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CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

Nuclear Facility (NF)

CMRR Nuclear Facility Design & Certification

- CMRR Nuclear Facility is in its design phase
- In FY10, NNSA to decide pace of CMRR. Pace to be set after national strategic decisions are rendered
- Defense Nuclear Facilities Safety Board (DNFSB)
  - Independent Federal Agency - safety oversight of nuclear weapons complex operated by DOE
  - Advice and recommendations to DOE Secretary and President of the United States
- DNFSB/NNSA Certification of Resolve Safety Concerns - *Complete*
  - Certification to Congress required to address concerns raised by DNFSB in their reports to Congress
    - DNFSB/NNSA Certification to Congress – September 14, 2009

DNFSB's certification report to be posted online at:
http://www.DNFSB.gov

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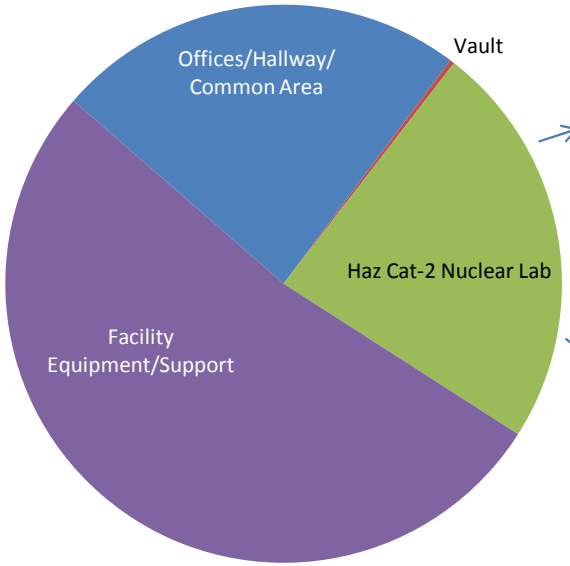
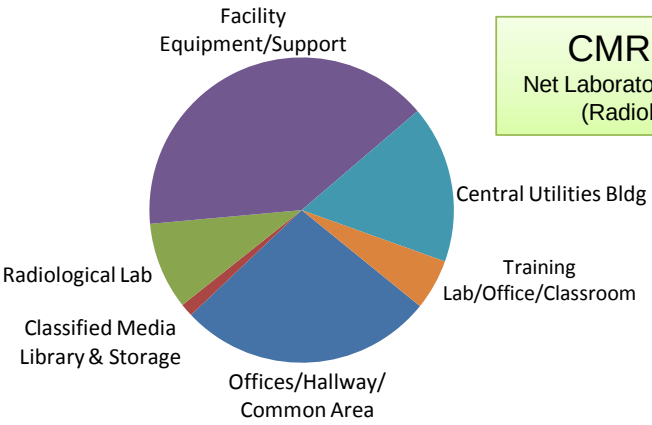
CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

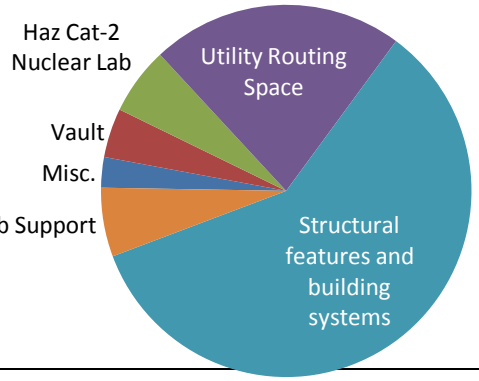
Square Foot Comparison

CMR Building
Nuclear Laboratory Area, ~ 134,500 ft²
(Hazard Category 2 – nuclear facility)





CMRR RLUOB
Net Laboratory Area, ~ 19,500 ft²
(Radiological Facility)



CMRR Nuclear Facility
Net Laboratory Area, ~ 22,500 ft²
(Hazard Category 2)

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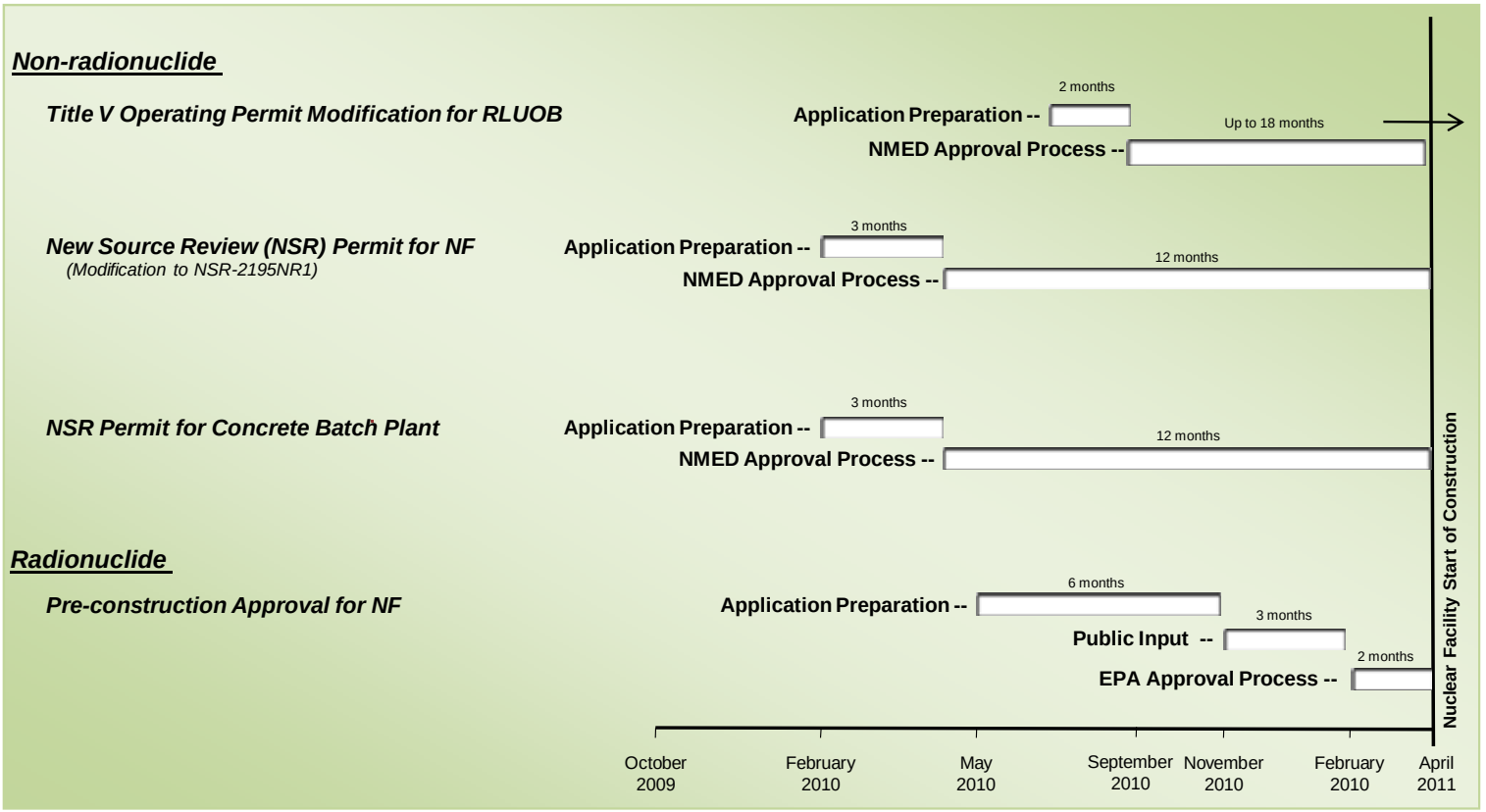
CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

Air Quality Permit Schedule



Chemistry and Metallurgy Research Replacement (CMRR) Project

Thank you for attending.

IV. Presentation Slides – Interested Parties

Interested Parties
CMRR Presentation
September 23, 2009

1

Interested Parties

Who we are:

- Concerned Citizens for Nuclear Safety
- Embudo Valley Environmental Monitoring Group
- Loretto Community
- Peace Action New Mexico
- TEWA Women United
- New Mexico Environmental Law Center
- Nuclear Watch of New Mexico
  - » www.nukewatch.org

2

Welcome to Our 8th Meeting!

- Public Involvement as Per Settlement Agreement

- Outline of Our Presentation
  - CMRR-Nuclear Facility Design Issues
  - Other Project Costs
  - RLUOB Equipment costs
  - Empty Space in the RLUOB

3

No Congressional Funding For NF Construction

- FY2010 budget request does not include a placeholder for construction
- “A future decision to proceed with construction of the Nuclear Facility and associated equipment has been deferred pending the outcome of the current ongoing Nuclear Posture Review and other strategic decision making. “
  - FY 2010 Congressional Budget Request, Vol.1, P. 215

4

CMRR Design Issues

- The CMRR project is now in its seventh year of planning and design.
- In 2002, the mission need appeared to be much larger than it is now.
- Today's mission need is not clear.

5

CMRR Cost Increases As Need Decreases

- The CMRR project was first introduced in the FY02 Budget to begin “planning”
- FY03 Estimated Cost for Design $55M
- FY03 Preliminary Full Total Estimated Cost Projection $350M to $500M
- FY04 Total Project Cost Est. = $600M
- FY05-07 estimates = ~ $830M
- Current Estimate = over $2 billion

6

CMRR Lab Space Decreases As Cost Increases

FY05 budget net lab space requirements:

- RLUOB = 20,000 net sf of lab space.
- NF = 45,000 net sf of lab space.
- FY05 Total Project Cost Estimate = $600M
  - FY05 Congressional Budget Request, RTBF, PDF Pg. 222

FY06 budget net lab space requirements:

- RLUOB = 20,000 net sf of lab space.
- NF = 22,500 net sf of lab space.
- FY06 Total Project Cost Estimate = $838M
  - FY06 Congressional Budget Request, RTBF, PDF Pg. 273

7

Senate Questions
CMRR Size

FY2010 Senate Authorization Committee:

- "The committee continues to believe that replacing the existing facility is essential but the ***CMRR has significant unresolved issues including the appropriate size of the facility***. Some of these decisions will not be made until the Nuclear Posture Review is completed at the end of the year."

- Senate Report 111-035 - National Defense Authorization Act For FY2010

8

CMRR–NF design still supports annual production of 20–80 pits.

- The Complex Transformation Record of Decision (ROD) claims there is little difference in the size of a facility needed to support production rates between 1 and 80 components per year.
- Nowhere does the ROD say that the CMRR-NF is needed for less than 20 pits per year.
- NNSA has not identified a need to manufacture pits beyond about 2010.

9

Yet NF Design Work Continues

The Need for the NF is Not Urgent

- No RRW or new designed warheads
- Pit lifetimes study found pits last at least 85 years
- Thousands of pits in storage
- Existing Stockpile Certified Annually

10

Defense Nuclear Facilities Safety Board (DNFSB)

- Congressionally Mandated
- Independent
- Weekly Reports
- www.dnfsb.gov

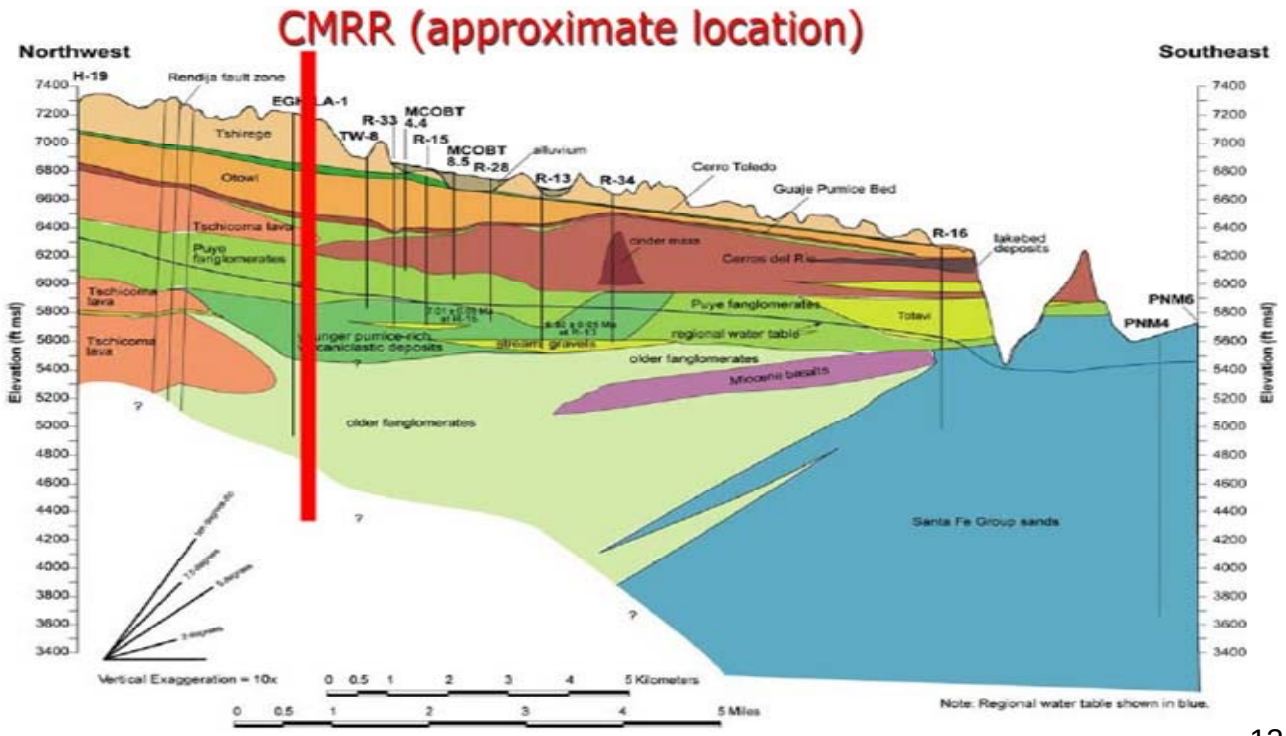
11

Limitation on Funding Due to Seismic Issues

The 2009 National Defense Authorization Act required the Defense Nuclear Facilities Safety Board (DNFSB) and DOE to submit a certification to the congressional defense committees that the seismic concerns raised by the Board were resolved before certain funds for CMRR are made available.

12

Complex Geologic Setting Beneath CMRR



13

Figure 2-13. Conceptual cross-section for Mortandad Canyon. Regional water table is shown in blue.

Safety Board Signs Off

On August 26th, the DNFSB signed off on ongoing seismic and safety issues

This allows around $50 million in funding to be released for its further design.

The Board had identified five certification findings ranging from structural and equipment seismic concerns to safety-related document and controls issues.

Safety Board Signs Off

- Just because CMRR-NF *can be built* is no reason that it *should be built.*

- Yet, the design for the Nuclear Facility pushes on.

15

Will NNSA Design a Smaller NF?

- What effects would a re-designed NF have on DNFSB certification?
- Can taxpayers money be saved on the NF project?
- What other options has NNSA explored?

16

350 New Fissile Material Operations? - LA-UR-09-03562

Phase II – CMRR Nuclear Facility

- **CMRR Nuclear Facility**
  - Hazard Cat. 2, Security Cat. 1 facility
  - Single building with ~22,500 ft^2 of lab space
  - Operations include
    - Actinide chemistry and materials characterization
    - Actinide R&D activities
    - SNM vaults
    - 306 glovebox enclosures
    - Extensive material transfer system
  - ~350 new fissile material operations

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Slide 6

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NNSA

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Other Costs - Move Road

Supplement Analysis/LANL Site-Wide EIS, Pajarito Road Realignment

- Current design of the CMRR Nuclear Facility, service road, and security standoff distance will require the realignment of Pajarito road.
  - DOE NEPA Status Chart Sept. 2009

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Other Costs - Tunnel

CMRR-NF will be connected to PF-4 by an underground tunnel

- Original intent was to tap into an existing section of tunnel
- But, the existing tunnel will be occupied longer than originally assumed
- This likely require the CMRR project to design a new tunnel
  - DNFSB Los Alamos Report for Week Ending October 17, 2008

19

Other Costs - CMR

- LA-UR-09-04491 – NNSA commitment to Decontaminate and Decommission the old CMR upon CMRR completion.
  - Execution in the 2018 -202X timeframe

- Is NNSA planning on demolishing the old CMR?

Appropriations Through FY2009

- Preliminary Engineering and Design - $65 million
- Final Design - $129 million
- RLUOB Construction - $199 million
- Other Costs - $45 million
- Total Project Cost - $438 million
- Total estimated cost (NF & RLUOB) - $2.6 billion

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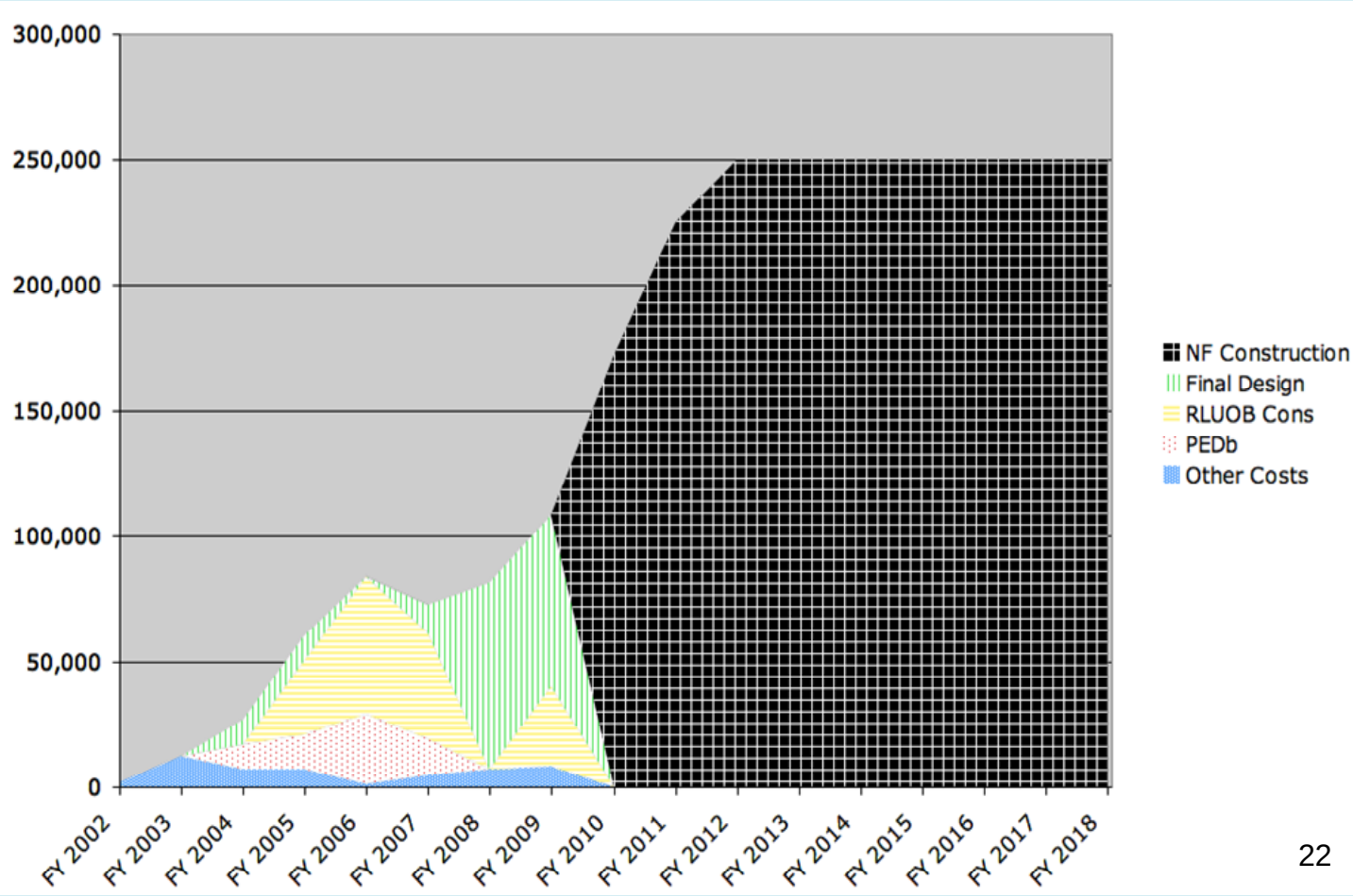
CMRR Total Projected Costs

Chart by Nukewatch from FY10 CBR



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RLUOB Lessons Learned

LA-UR-09-04491 UNCLASSIFIED

Energy Facilities Contractors Group
Project Management Working Group

Chemistry and Metallurgy Research Building Replacement (CMRR) Project
Los Alamos National Laboratory (LANL)
Construction Experience

Rick Holmes, PMP
CMRR Project Manager

July 21, 2009

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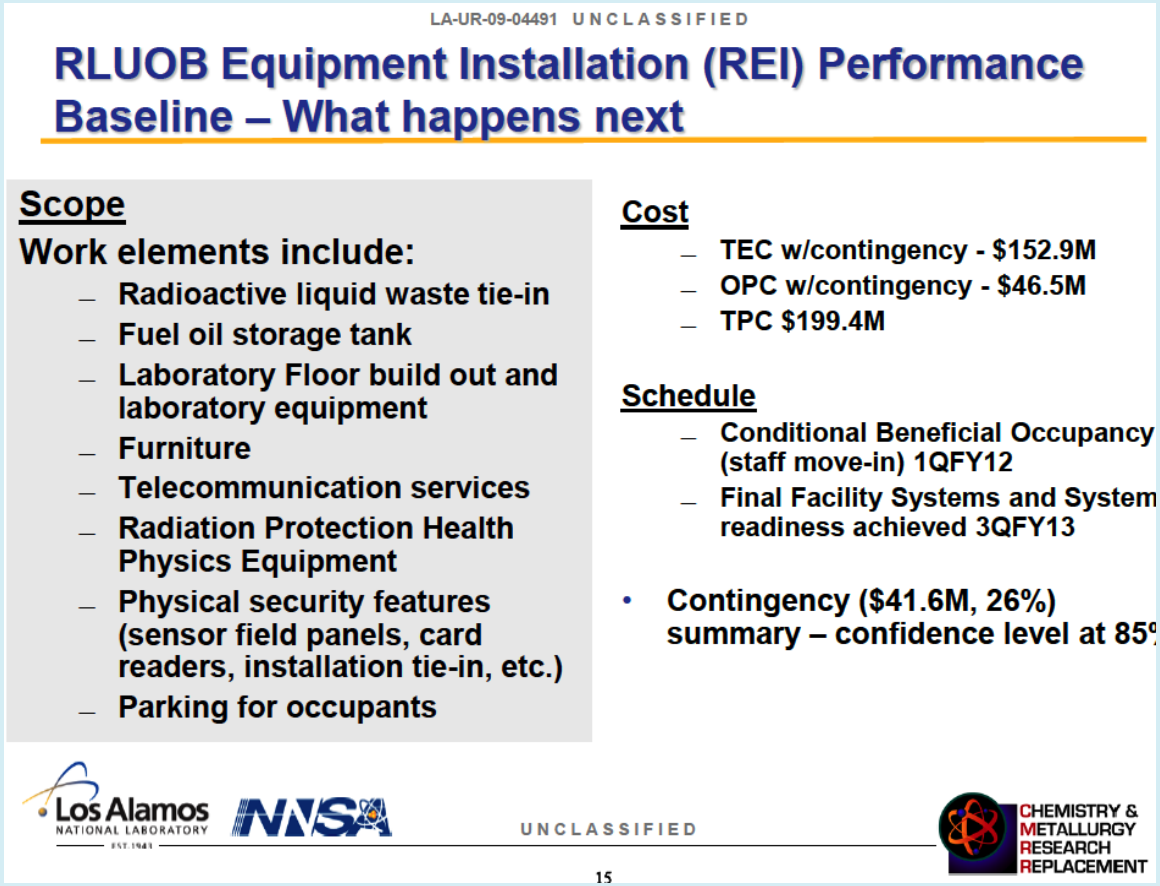
CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

23

RLUOB Equipment Costs = $199M



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Defining Equipment

- FY10 CBR - Equipment installation includes gloveboxes, hoods, AC/MC instrumentation, security and communication hardware, and final facility tie-ins and operational readiness/turnover activities.
- Furniture?
- Parking Lot?

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Old CMR Exit Plan

- In August 2008, NNSA stated its intent to transition all program activities out of the Old CMR facility as soon as practicable.
- This guidance directed development of a Old CMR exit plan that assumed that Building PF-4 at TA-55 and the CMRR - RLUOB would be available while the CMRR- NF would not.
- This could mean up to a nine-year gap between CMR closure and CMRR completion.

Empty Space in the RLUOB

- The Lab is still only planning to equip 4 of 26 lab modules in the RLUOB.
  - FY2010 CBR Vol. 1

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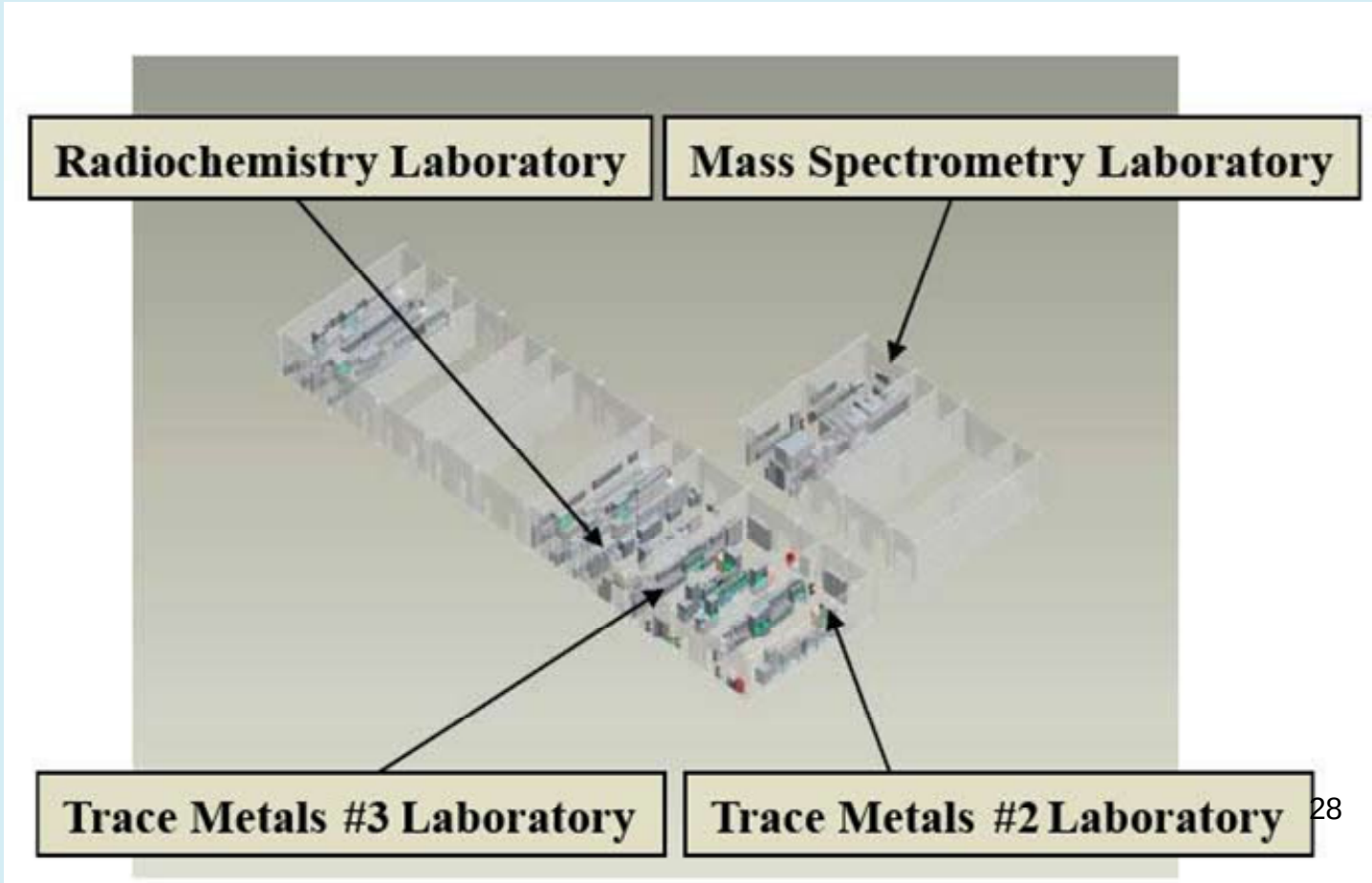
Artist Rendering Shows Unused RLUOB Space



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The Nuclear Facility stands in the way of LANL's future

- To build the CMRR-NF or not is ultimately about future mission diversification or not at LANL.
- LANL should be seeking a slice of the mission diversification pie rather than building for further retrenchment in the shrinking nuclear weapons business.

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"We will complete a Nuclear Posture Review that opens the door to deeper cuts, and reduces the role of nuclear weapons."

~ Remarks of President Barack Obama
Address to the United Nations General Assembly
September 23, 2009

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V. Sign-in Sheet

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Wednesday, September 23, 2009
CMRR Public Meeting @ Best Western "Hilltop House" – SIGN IN SHEET

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