CHEMISTRY
METALLURGY
RESEARCH
REPLACEMENT

CMRR Public Meeting, March 10, 2011

Volume 11

Los Alamos National Laboratory
Los Alamos, New Mexico



Los Alamos
NATIONAL LABORATORY
EST. 1943

National Nuclear Security Administration

LA-UR 11-03155

TABLE OF CONTENTS

I. Agenda 3

II. Transcript 5

III. Presentation Slides – *CMRR Project* 56

IV. Presentation Slides – *Interested Parties* 80

V. Meeting Flip Chart Notes 100

VI. Sign-In Sheet 105

I. Agenda

CMRR Public Meeting

Wednesday, March 10, 2011

Fuller Lodge, Los Alamos, NM

6:30 – 8:30 pm

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

II. Transcript

TRANSCRIPT
of
Public Meeting

Chemistry and Metallurgy Research Replacement (CMRR) Project

March 10, 2011

[The meeting was called to order at 6:30 p.m. in the Fuller Lodge, Los Alamos, NM, by Meeting Facilitator Bruce MacCallister.]

[LANL Slide 1]
[BRUCE MACALLISTER, FACILITATOR]
... have a chance to sign in. I'm gonna start, uh, the sign-in sheet around. If you already signed in, just pass it on to the next person. Pardon my extra baritone voice; I sound a little bit more like Barry White tonight than usual. Coming off of my annual spring cold, so I'll be sipping tea and trying to nurse it along. So.

[LANL Slide 2]
[BRUCE MACALLISTER, FACILITATOR]
Welcome everybody. Ah, I wanna start with going through the agenda just to give people the idea of the time frames. We'll have a very brief introductory window here. I do want to spend a little time reminding people about the ground rules. We'll be moving into the CMRR presentations and project overview. We will have question[s] and answers. Because the Interested Parties presentation is a very information-packed presentation, I'm gonna be moving quickly through the questions, if we can, to allow plenty of time for that presentation.

[BRUCE MACALLISTER, FACILITATOR]
Nonetheless, if you have a question, that's, that involves the Lab's presentation, do please feel very free to ask the question. It's gonna be more time efficient if we do save the questions for the Q&A section, however, so that the presentations can occur and move through. So, unless there's something that's absolutely, you know, ya' know, incongruous to you, let's hold the questions until the, until the question and answer section.

[BRUCE MACALLISTER, FACILITATOR]
Because of our contract limitations for the space that we use, whether it's here or at Hilltop House, we are obligated to end promptly at 8:30. And I will land this aircraft at— on the runway, at 8:30 on the dot. So, I'll be moving us quickly there.

[LANL Slide 3]
[BRUCE MACALLISTER, FACILITATOR]
We can talk about ground rules for a minute. Ahm, we'll talk about, we can talk about the background. Just to remind everybody about the background, and I think it's a little more important to review these because I don't believe these are in the packages, that you– uh, the hard copies that you have.

[BRUCE MACALLISTER, FACILITATOR]
These meetings were established as the result of a settlement agreement between the— a number of parties in a, ahm, in an action involving Los Alamos. And the settlement requires biannual public meetings. And, ah, that's why we're here. To hold the Spring meeting, Spring session of these biannual meetings, and these are the parties. I won't read through them per se, but you'll be able to see the, the diversity of the parties involved here. And we do hold these meetings, depending on the availability of the

parties. We worked that out to where it's, uh, within that roughly six-month window. So we will be having one sometime, typically in September, for the next meeting.

[LANL Slide 4]
[BRUCE MACALLISTER, FACILITATOR]
So, I do want to spend a little bit of time talking about the ground rules tonight. Ya' know, there's been a number of recent events. There was an incident involving a previous– another, uh, Department of Energy sponsored meeting where there were some issues that arose. Of course, we are all mindful of some of the other high-profile things that have occurred recently in public meetings.

[BRUCE MACALLISTER, FACILITATOR]
I wanna remind everybody that we have a long track record with these meetings. Civility, mutual respect, and of abiding by our ground rules. So I am asking each of you tonight to be very competent and observant of the ground rules, if you will please.

[BRUCE MACALLISTER, FACILITATOR]
Some of those ground rules that are important to us are making sure that everybody has an opportunity for input. So I do try to move the mike around. I will be tracking who's raising their hands during the question and answer sessions, getting to you in the rough order that I can. Please, because we do transcribe these meetings, the, uh, it's very important that each of you, when you speak, identifies yourself. Because it doesn't– it's not automatically apparent on the tape. And, I am Bruce MacAllister. I guess I need to start by abiding by that ground rule. And I've been the facilitator for these meetings for the last five sessions, for about the last two and a half years. And um, look forward to continuing that if I'm asked to.

[BRUCE MACALLISTER, FACILITATOR]
Ah, so, let's keep the meeting issue-focused. Let's not personalize any of the issues that we discuss tonight. Everybody here is here because they're sincere in their responsibilities and in their goals. Um, if there's anything that is critical that we can't answer tonight, I have a "Parking Lot" flip chart over there. Uh, those questions are placed on that parking lot. And then the Laboratory will take those questions and respond to them, develop responses, collect that information, provided it's within the scope of what these meetings are about, which are about the CMRR Project. Okay. So. Any questions or concerns about ground rules or why we're here tonight? So, we're all ready to go and abide by those ground rules, right? All right! Steve?

[LANL Slide 5]
[STEVE FONG, PROJECT MANAGER, LOS ALAMOS SITE OFFICE (LASO), NNSA, DOE]
Good evening. I'm Steve Fong. I'm with the CMRR federal project team. And I guess everybody can hear me. And I've just kinda dropped in and out there. Is that working? Okay, good.

[STEVE FONG]
I'll be sharing tonight's briefing with Tom Whitacre [Thomas J., Project Manager, LASO, NNSA, DOE]. He's also on the project team. And I also want to recognize Rick Holmes [Richard A. Holmes, CMRR Division Leader, Los Alamos National Laboratory] in the back. He's our Laboratory lead on the project. So between the three of us we will be responding to a majority of the questions. So, thank you for coming tonight. This is our eleventh meeting, and I see a lot of faces I've seen over the years and we've started to grow a little gray together, and a lotta new faces. And uh, I'd like to meet all of you new folks. Uh, and of course, if I can't get to the questions tonight, you can always catch me after and I'll try to– I'd like to meet you and then also try to respond to any questions at that time.

[STEVE FONG]
So, Lorrie [Bonds Lopez, LANL Environmental Programs Directorate], I guess you got the controls [of the slide projector]? Okay.

[LANL Slide 6]
[STEVE FONG]
Not to focus on the Supplemental Environmental Impact Statement, but, we have one and it is occurring. It's underway. We've held public meetings. Uh, we are going to have a draft out in a couple of months. We're gonna have public meetings. And a public comment period. And, uh, a record of decision. And based on that, the project may go in a variety of directions. I don't want to– a lot of the information I'm gonna convey tonight is, is about what we've been working on, and our preferred, if there is a preferred option, but the option to build at TA-55. I'm gonna be presenting a lot of that. But, again, there is a whole 'nother decision-making process that's going on. As we, we went through our agreement, uh, our settlement, in terms of the public meetings, we were conscious of, that there might be other competing meetings that might, that might be occurring, and we just decided that we'd
have single-subject meeting about CMRR, and let's not try to combine it with any other meetings that also have a process.

[STEVE FONG]
The NEPA [National Environmental Policy Act] process is well-defined and it will go on along its own track. In the back corner I see over there, underneath the (is that a moose? no, that's a deer) is John Tegtmeier [LASO-NSM] And that's Jay Coghlan right there. John Tegtmeier is running that effort, and you can talk to him if you have interest about that process. So, that's the last I'm gonna try to talk about the NEPA process here. But I just wanted to mention it; it is on-going, and it is in a real direct background of what I'm presenting here today.

[LANL Slide 7]
[STEVE FONG]
What is CMRR? Please think about it as a chemistry capability. Uh, basically everything that the Lab performs and provides for the country in terms of a capability to study materials–that is CMRR. It, it provides a capability for the Laboratory, and for the [Nuclear Weapons] Complex. Think of the project also as two facilities. It is a Rad Lab Utility Office Building, and sometimes I might refer to it as "RLUOB," and the key, uh core mission, which is in a Nuclear Facility. And that's the bigger of the two facilities.

[STEVE FONG]
I will go down through and I'll detail a number of things about the projects. And we have pictures of, of some activity, construction activity, that's currently going on. But this capability supplies not only support for stockpile management, but it does a variety of other missions. It supports, provides capability for nonproliferation. It provides, uh, capability, uh, for waste management, new fields, and general research, and so on and so forth. Anything that's nuclear and involves chemistry has to go through the CMR facility. That facility provides the core nuclear chemistry capability for the Laboratory.

[LANL Slide 8]
[STEVE FONG]
The other thing to think about CMRR as, is, it's an extra "R" – so it's a Chemistry Metallurgy Research Facility *Replacement* project. It is replacing a capability that currently exists in the CMR facility. That facility was built, was constructed in the late '40s and operational in the early '50s. It's this facility in which the CMRR replaces. This facility is located in Tech Area 3. It's located about a mile, roughly around a mile, I guess, or so, where we're trying to construct the new facility further down to the East.

[STEVE FONG]
But it is a large facility. It's, uh, it's close to 600,000 square feet, uh, and it is– seen it's useful life. And that is where we're at today, is trying to replace that facility.

[LANL Slide 9]
[STEVE FONG]
CMRR is proposed at Tech Area 55. Uh, adjacent to the existing plutonium facility which is known as TA-55. Some people call it as PF-4. CMRR are the two buildings you see there. It's the Nuclear Facility. And right adjacent to that is the Rad Lab Utility Office Building. The Rad Lab Utility Office Building– The shell of that facility has been constructed already. And we're currently in a phase where we're outfitting it. And we have pictures, progress photos of that construction and progress.

[STEVE FONG]
What we're trying to do is basically, consolidate what we can, for efficiency purposes, all of the, the plutonium work at the Laboratory in one area. And from there we get a lot of synergy, a lot of optimization of four, by combining all of that. These facilities will be connected by tunnels. A person who is a worker at CMRR will park at a parking lot, now, across the street, that's been constructed, walk on over to the Rad Lab, go to his office there, check his emails, go downstairs, and change out and go to the, through a tunnel, across the security fence, which is, or underneath the security fence, which I depict with the, a couple of hazy lines–I think of that as a, a security perimeter, then will go under the fence, via tunnel to the Nuclear Facility where most of the work will be performed. If necessary, that person can also go and transport materials or walk on over to the PF-4 facility. So all of that is, is the efficiency that we are trying to build on in.

[STEVE FONG]
The road that you see there is Pajarito Road. It runs roughly east and west, and right now we are looking, uh, at, down the mesa towards the east. The current CMR facility is located, like I said, about a mile towards me into the picture to the west. And again, a lot of transport occurs today over the roadways. And, we're gonna eliminate a lot of that now by consolidating all that work and operations in one spot within [TA] 55.

[STEVE FONG]
You notice the title? I won't read it for you, but all of the manufacturing work for, for the, uh, weapons manufacturing occurs in PF-4. All CMRR nuke facility does is a support capability. It will provide the chemistry for weapons production, but also all of the other demands that are required of it. And, again, I went through those. And the capabilities are numerous. Uh, that are well beyond simply supporting pit manufacturing.

[LANL Slide 10]
[STEVE FONG]
We have an opportunity. We think of it as an opportunity, I think, us on the project, of doing it right this time. We have a blank slate and we are looking at ways to do it in a manner that is most efficient, uh, the safest way possible, looking at things from a security perspective, how to consolidate things, uh, we are taking this thing, taking this opportunity to make sure it is safe for the public, safe for the worker, and to the environment. And we're– I'm gonna step through of those issues.

[STEVE FONG]
But also, it's part of a broader effort in which to consolidate some of this antiquated space all back into sorta modernization of, of the space into a more efficient, uh, sitewide complex. If you'd go to the next slide.

[LANL Slide 11]
[STEVE FONG]
So if you see, we're basically–what you see is a map of nuclear facilities in about the 2000 timeframe. In, in about 2018, we plan to consolidate all of that current aged space into a much smaller footprint. And that's about a 70 percent reduction. And, when we do that in every, in every aspect, that's when we can apply the latest standards available, to make sure that these facilities that we are gonna construct, again, uh, safe to, to the public and to the workers and to the environment.

[LANL Slide 12]
[STEVE FONG]
The Rad Lab, like I said, is our first facility. This is where, this is non-nuclear. It has a radiological laboratory to it, but it, it's a, very minute quantities of material are actually studied there. But it's, it's also an office space for 350 people. It's consolidated training. Uh, it's, it provides, has a central utility function, where we provide utilities both to the facility itself and to the Nuclear Facility that's planned.

[STEVE FONG]
The facility shell was constructed. We, uh, we accepted that. And now we are in the process of outfitting that. The first part of it was 164 million, for the shell. We are outfitting about 199.4 million dollars worth of equipment. So that is on-going. Uh, the facility was built to NQA-1 [Nuclear Quality Assurance] standards, which is basically the highest quality standards available for nuclear work. We are quite happy to say that, uh, that at least in the structure, we had over 2 million man hours with no lost-time accidents, and we are even now higher in the REI [Rad Lab equipment installation] space. I haven't checked the numbers recently, but last time I saw was somewhere in the neighborhood about two and a half million man hours with no lost-time accidents. So, during construction, we're, a lot of emphasis is making sure that the, the worker and the crafts are doing things safely. Uh, and right now we are well ahead of, of, of schedule. We should be about a year early in delivering that facility going to Rad Operations, Radiological Operations, next year.

[STEVE FONG]
Joni [Arends], we had a request that you had. To maybe, we could go see this facility and I think we should pursue that, lean forward with that. So, we'll try to lean forward and see how we can make something happen. So that's my commitment that we'll try to work towards it. Lot of hoops to go through. This facility is gonna go live into operations, ah, next, at the end of this year. So, we're gonna have to figure out a timing thing. But we'll try. We'll attempt to see what can happen.

[LANL Slide 13]
[STEVE FONG]
It's a pretty facility. And we've got more pictures that Tom [Whitacre] will go over of the, the operational spaces in there. But, uh, it is now looking like, a front door, you can walk in and it has furniture. So it looks like it's getting pretty close. Thanks.

[LANL Slide 14]
[STEVE FONG]
Uh, the larger of the two components is the Nuclear Facility. And this is where the, most of the chemistry will go on. It's at a, what we call a Hazard Category 2, Security Cat I, type of facility. It replaces most of the, the operations that require a, a larger quantity of material in its gloveboxes and glovebox operations. It's a robust structure.

[STEVE FONG]
We've taken a look at the geology and have determined that it is a suitable location to build on. We've studied that in depth. And very closely with the Defense Board [DNFSB, Defense Nuclear Facility Safety

Board]. And I don't know, but a lot of you will hear the Defense Board, but they are an independent group that reports to [the US] Congress that oversees us. And basically there is nothing getting by the Defense Board. But we work closely with them. We've all agreed on the design. That the design aspects for this and the selection of controls that we have for our operations, uh, are a, is a viable solution. So we've gone through that and we continue to go through that design effort. Within the facility we have a storage vault. That's uh, basically will be located in the ground in this area [pointing to slide]. It's, uh, will hold six metric tons of special nuclear material. It will also be built to NQA-1 standards. And it's going to basically incorporate all the latest codes and standards until we baseline the facility. And that's when we commit to Congress, when we, uh, set the cost/performance parameters for the scope, cost, and schedule. And that will be for the, for the entire, for the facility structure itself in the 2013 timeframe.

[LANL Slide 15]
[STEVE FONG]
What we spend, what we've been spending an enormous amount of time on, is the protection of, of, making sure that the safety controls are integrated into our design. And we've been doing that. It's not a simple task. A lot of these facilities, nuclear facilities as such have not been built for many years. So we're back engaged in the process of stepping through it, at an incremental pace, with the Board, and checking and re-validating. There's not a day that goes by that we are not under a, an external or independent review that comes on through. All verifying and making sure that what we are doing is aligning and vectoring towards the right way. And there's a lot of, of emphasis. And we could go on and on about the, the safety, and our selection of safety controls. But, again, it's paramount, before we make, go forward, and before we move forward in execution and construction of this project, that we're gonna make sure and verify that the safety controls are the right set. And that they will perform.

[LANL Slide 16]
[STEVE FONG]
The Rad Lab Utility Office Building was built to the latest sustainable ener— sustainable standards available right now. The LEED, for Leadership in Energy and Environmental Design, is the, uh, the standard today, which, uh, industry, and as well as us now, have built to. So the Rad Lab is a LEED Silver facility. And it's constructed to that. The Nuclear Facility, we've registered that as LEED also, and it's our goal to even better that. So, although a certification is the lowest level, platinum, er, what is it? gold is the highest, and we're gonna try to see how far we can go on up. But again, we, our first, our foremost concern is ensuring that we have the safety controls selected. We, uh, have challenged the designers to build it with the green technology, and they are excited. I think they see it as a challenge. And there's a lot of excitement that we can actually build in the modern facilities that we need.

[LANL Slide 17]
[STEVE FONG]
Uh, and I also wanted to mention that the slide set that I chose today, was the slide set that has been– that I've been using and others in the staff have been using for a number of the local communities and representatives. So I chose the same slide set, so what we've been presenting has been directly presented to a, a lot of the local governments around here. Uh, to say that we are going to be a local economy boost, I think is taking it lightly. We, we have a lot of planned, uh, contracts that we are, hope to set and that will help assist the, perhaps the downward economic turn in the local areas.

[LANL Slide 18]
[STEVE FONG]
Where are we at in permitting? That's how we all started this thing. When we went in for the initial Rad Lab permit, there was concerns about the permit, and that was the genesis for our public meetings. That's still on track. Uh, from last time when you saw this, we had the things in the September timeframe. We pushed it off for a little bit of a slip on when we expect the Sitewide Environmental Impact Statement, to

make sure that we incorporate the, the alternatives selected for that. Uh, the top line is our basic– we have a construction permit, we had a construction permit for the Rad Lab. That now gets turned over to our Title V, or operational permit, that makes it federally enforceable. So that's an on-going process that is basically is going to give the regulator a hammer and some teeth to make sure we have federally enforceable terms on the state permit. So that process is on-going, and it's, it's proceeding.

[STEVE FONG]
We also have a, a couple of other permits that we're gonna need. We're gonna have a construction permit for the Nuclear Facility as well as a permit for the batch plants, the concrete batch plant is what we'll need.

[STEVE FONG]
And also, a pre-construction application for radionuclide emissions to EPA [Environmental Protection Agency]. So all of that's gonna be in the works by the time, when we get to the next public meeting. So we will be involved. And we have some commitments in our agreement in which we'll share those permits before they're–, uh, at about the same time, I guess, they are released to the state authorities or EPA.

[STEVE FONG]
At this point, I'm gonna turn over the discussion to Tom Whitacre and he'll talk a little about progress out in the field.

[LANL Slide 19]
[THOMAS J. WHITACRE, PROJECT MANAGER, LASO, NNSA, DOE]
... high level projects and all the program impacts, I'm gonna kinda deep, dive a little bit deeper in the project, the literal nuts and bolts of what is happening construction-wise here in the last six months. So I've got a bunch of discussions and some photos on what's happening.

[LANL Slide 20]
[TOM WHITACRE]
This slide is kind of a cartoon of our schedule that we had last presentation. Uh, we've kinda updated our timeline here, and the Rad Lab equipment installation (REI) is made up of several different discrete scope packages. And so I'll give you a status of what we thought last time where we were at, and actually where we are at in execution of these different packages that are happening right now. So, we have a fuel oil storage tank, uh, scope of work that is actually going up through design right now and will be completed by the end of September.

[TOM WHITACRE]
One of the key milestones on this chart here is a "conditional beneficial occupancy," and what that's scheduled for is September 30th this year. And what that means is the second, third, and fourth floor, as Steve mentioned, are the office spaces and the training complex. We're gonna turn those over to the institution come September 30th. So that's kinda conditional beneficial occupancy. And then the balance of the radiological operations to operate the laboratory will be following probably six to nine months after, so some time next year we'll be in rad ops. So, the plan is for our fuel storage tank, we are going through design right now; we'll have construction complete by the time we go into beneficial occupancy. There's a rad liquid waste line that runs from the Rad Lab facility and will tie in to PF-4 lines that go for treatment at the RLW [Radiation Liquid Waste] plant. So there'll be a rad liquid waste line to take our low level waste. That's in design right now and will be constructed and completed by September 30th.

[TOM WHITACRE]
The office furniture for the second, third, and fourth floor, the training floors, we've already procured that and that has all been installed, so we are actually ahead of schedule right now. So, that action is complete. Telecommunications: we are in the process of finalizing design, will be awarding a contract, and that work should be done come this summer as well. So we'll have telecommunications in the facility also.

[TOM WHITACRE]
Security systems: kinda the same timeline as telecommunications. We are going through security design right now. Purchasing equipment. And we'll be having the institutional security folks install that, and that'll be completed by this summer as well.

[TOM WHITACRE]
Ah, the enclosures and the equipment installation, along with enclosure fabrication–those are the programmatic equipment. We have gas mass spectrometers and specific equipment for the chemists to work with. Uh, that's also, there's a limited number gloveboxes that'll go in this facility, and we also have fume hoods and all type of chemistry equipment that we are purchasing right now. So, we've actually have purchased and designed and built most of the enclosures, and most of the programmatic equipment is in, is in fabrication right now. It's being delivered, kinda sequentially. And the idea is, all this will be complete by the end of September as well. So that kinda would include this laboratory build-out. So the idea, as Steve mentioned that we are ahead of schedule significantly, potentially a year. So all our laboratory build-outs will be done here by the end of this physical year. About a year ahead of schedule.

[TOM WHITACRE]
And there'll be, uh, a lab readiness review to start radiological operations and after that there will be a permit to operate the radiological facility. As part of the project we have a parking lot that we installed near the current TA-50 parking lot. I have us some photos that we'll show in a minute on that. That's to support the workers in the rad lab building as well as some people who were displaced by some other projects at TA-55. That is actually complete now. We started that back in December and finished that up about a month ago. So that's complete and ahead of schedule. And, like I said, we are on track right now to continue with our turnover to Rad Ops here in the '12 timeframe. So, next one.

[LANL Slide 21]
[TOM WHITACRE]
So, I've got a bunch of photos here now to kinda give you a status of where we're at on things. And I can kinda go through these in some detail if we need to. Steve mentioned, we've got the facility shell completed. Hundred and sixty-four million dollars. This view is, ah, from the north looking to the south. And this is the way the workers will actually access the building. They'll be coming up these stairs and these ramps and coming in through this portal over here. This is actually the second floor of the building, which is the main floor where people will be entering. The third floor and fourth floor–the second and third floor are actually office spaces. The fourth floor is the training complex. Right now all the folks at TA-55 have a pretty expensive training regimen they need to go to, and a lot of those training complexes are here in downtown Los Alamos. So having the training complex centrally located will save a lot of time and effort folks getting trained.

[TOM WHITACRE]
So folks will be coming in this way. This is a view to the south here. This is the second, third floor, and training floor on top. This first floor is actually kinda where the laboratories are. There is an elevation change from north to south. These are loading docks. And then past the loading docks there's an air lock and there's some, uh, that's where the actual laboratory modules will be. And I have some photos of that.

[TOM WHITACRE]
Uh, this is our exhaust stack where all of our air that's been processed through the facility, gone through rad contamination, and we have multi-stage HEPAs. I have some photos of those that are filtered out. An exhaust stack comes out through here. We actually have our air permit monitoring locations here. Our parts here from the folks who will be doing that.

[TOM WHITACRE]
These are some nitrogen and argon Dewars [flasks]. Some of the specialty gases and services that the facility provides for the glovebox users and the gloveboxes. And so those are stationed outside here. The next one.

[LANL Slide 22]
[TOM WHITACRE]
This is a view from the, uh, looking towards the east. This is the Central Utility Building. This is [on] the west side of the rad lab, second, third, and fourth floor, and the Central Utility Building here. And this is where all the utilities, Steve mentioned that briefly, all the hot and cold water, chilled water, compressed air, our fire pumps, all that are located in that facility. They support the Rad Lab Building as well as some of the services, will provide services for the future Nuclear Facility.

[TOM WHITACRE]
These are engine generator sets for backup power, and the facility, and this is the road that goes down to the loading dock, the fire road, fire access road.

[TOM WHITACRE]
This is our parking lot that we just recently completed at TA-50. It's located a little bit further east of the current TA-50 parking lot. It's about 450 spaces. This is about a five million dollar, plus or minus, job completion. We got done several months early. This accounts for parking for the folks, 350 workers in the Rad Lab Building who'll be there and, as I mentioned, there were several parking lots disturbed by the NMSSUP [nuclear materials safeguards security up-grade] up-grade, which is a security up-grade perimeter around TA-55. There's a big parking lot up by that access. Those spaces were gone. So it was a real parking nightmare. So we ended up, as part of that project, it kinda kills two birds with one stone. So we take care of the parking with that as well.

[TOM WHITACRE]
Next one here.

[LANL Slide 23]
[TOM WHITACRE]
So, kinda some pictures of the inside of the facility now to kinda show the finished nature here, of the structure and the building. This is actually the, uh, kinda the emergency operations and operations center inside the facility. This'll be manned 24 hours a day, by operation and maintenance folks. All of our systems, our pumps, our motors, our fans are all monitored and sensored. Ah, and they run from the particular component throughout the facility, and through conduit, and contained here in this computer system. We have a facility management system that can monitor all the building systems and the building functions. So, if there's a particular fan that's out of power, or voltages on a particular pump, there's an error, then it'll notify the operators immediately. And they'll be able to go down and inspect the particular piece of equipment. So, kind of a state-or-the-art process here for the facility. So that's in the process of building out. We'll have the special computer user, rapid user interface off of that.

[TOM WHITACRE]
This is the fourth floor. The training floor. So we've got furniture in here. I didn't wanna show you guys a bunch of furniture, but it's typical office furniture. The training folks have come in here. They've got the best views of the whole building on the fourth floor. Uh, so, those spaces will be coming in, the people'll be greeted here. There's another side where the actual trainers reside. And this side down the hallway are all the classrooms where all the folks [will be] getting training at TA-55. The next one.

[LANL Slide 24]
[TOM WHITACRE]
Again, I wanted to show they have the nicest view. This is the fourth floor, looking out here towards the south. For a training room. I don't know how much attention people will pay, but that's a great view out here.

[TOM WHITACRE]
Uh, this is a kinda pretty neat architectural feature of the building. It's the atrium. I mentioned that on one of the earlier photos where it shows all the people entering the building. This is where they'll actually come in here, on the second floor. And so we have the second floor, third floor, and fourth floor here, looking out towards the east. And then, we have a similar kind of a glass-paneled store front on this side where this photo is being taken from. So one of the key things in the building is, we're gonna have both people with clearances and people who don't have clearances yet, uncleared personnel and Q-cleared, or top-secret clearance personnel. So the building is kinda split that way. The north side here is all folks who have, [are] awaiting clearances. That also continues down to the floor below, is the actual laboratory floor and that north side of the lab floor is for uncleared people as well. So, the idea is, is people come in, it takes six months to a year to get a clearance sometimes, so folks can actually be trained in glovebox operations and actually work in actual, uh, non-security-required environments in the laboratories, learning that, and then when their clearances come through, they can go over and work on the cleared side of the building over here. Next. Let's see.

[LANL Slide 25]
[TOM WHITACRE]
This is, it's down in the basement, some of the utilities in the building here. This is kind of a, this is the nuclear filtration portion. These are the actual multi-stage HEPA filters. As we go through laboratory operations working with the radiological quantities of material, Steve mentioned this is a radiological facility, so we're only allowed about a quarter's worth of plutonium. Very small quantities. But you can see the type of air filtration we have. What this is, is air comes in, contaminated air comes in from laboratories, and potential radiological spaces– and I have some photos down the road of that— and here we have multi-stage HEPAs. Kind of a fancy version of what you have in your house for your filters. So we have dual-stage HEPA trains. Air comes in through here, is scrubbed out, has a secondary scrubber. It actually comes out through here, through these motors. So these blowers are actually rotating all the time, kinda drawing suction in through the whole building and through all the radiological spaces. So all the air comes in through here, through a big blower turbine, collects up above–we have a photo up there in a minute that shows all this being collected into a header pipe–and out through that air stack that I showed earlier. But on the facility here we have a, these big heavy-duty motors, we have these base isolation, it's kind of a big, kinda rubber bumpers, on the base of this to prevent the fans from vibrating too much and causing a lot of problems. Vibration in this kind of equipment is not desirable, it shortens the life. So, we went ahead and had these inertial bases. Also during a potential seismic event, having that big seismic counterweight, during any kind of seismic motion, would kind of limit any kind of movement or damage to these, these, uh, fans as well.

[TOM WHITACRE]
And all of our equipment is all controlled by variable frequency drives. Essentially what these are, are mechanisms to start our motor. Instead of turning on a switch and throwing all that power to these motors and getting everything cranked up, it can cause a lotta air, you get a lot of issues with the performance of the motors and the life of 'em. We just slowly ramp up the energy, the electricity into here, and that'll slowly start rotating these motors. The nice thing about these, these are all instrumented back to that emergency facility operations center. And so, if the operator needs to adjust the rotation or speed of the motor, he can adjust that right there at the computer console. It'll come back to this piece of equipment and actually adjust the rotation on these fans. But, I just want to give you a sense of, it's kind of the main ventilation portion, exhaust portion of the building, of the radiological—

[LANL Slide 26]
[TOM WHITACRE]
Uh, little security here. I mentioned we had cleared and uncleared personnel. Here's the security doors that we are in the process, we have a typical turnstile. We have typical security hand units, badge readers, geometry units for folks to get in. This is actually from the secure side out into the atrium hallway. And we have alarmed security doors, but, uh, so this scope is actually being built in place right now. These doors are here in case, of course, we gotta move our equipment through the security doors, you'd be able to do that.

[TOM WHITACRE]
Down here in the basement of the CUB [Central Utility Building], this is some of the pumps that we have in place. These large fiber glass tanks are actually potable water tanks so we get the water from Los Alamos County, provides water to the laboratory, and to a water loop up to the building. Be about five to ten thousand gallons potable storage water. And these are all different pumps that'll take that water and send those off to the, uh, the CUB has a need for potable water as well as Rad Lab, for the building, drinking water, but also laboratory process water as well.

[TOM WHITACRE]
Uh, in the back here, we have, it's kinda hard to see here, I apologize for that, but we have a series of ice storage chiller systems in here. So the way that we generate cold water is we use a glycol ice storage system. And what that essentially is, we have these big twenty some big giant coolers, essentially, with glycol. And what we do at night time, when power is cheaper, we'll go ahead and freeze that glycol with these systems. And during the daytime, we run an evaporator and kinda let an evaporative cool. So we can generate cool air that way, and we will also circulate water through that cool air to generate cold water. So, ah, this is kinda one of the LEEDS points here. Power is much cheaper at night to buy. There's less demand. And so it's more energy intensive. So it makes economic sense as well as LEED point sense to go ahead and develop that system.

[LANL Slide 27]
[TOM WHITACRE]
This is up in the mezzanine. There's a— This is the floor immediately below the laboratories. But, uh, I showed it earlier where we had those double-stage HEPAs come through with those fans, pointing on up through the floor. This is where those— exhaust from those fans all come down below. And there's a big black 84-inch diameter pipe right here that collects all that exhausted air. So once that air comes through those multi-stage HEPAs, it's scrubbed out, clean air, comes out through here, and this runs into the outside air exhaust stack that we saw on the south side of the building that we have our monitoring for. So all of our RCRA [Resource Conservation and Recovery Act] permit monitoring.

[TOM WHITACRE]
One of the things we notice in here, this is a, a pretty tight space. It's about a six-foot ceiling in here. Uh, and it's considered part of the building space, facility space, but it's really not really that usable. What it's for is to allow access for the maintenance folks to get in here and look at this equipment. We are not gonna have office spaces or lab spaces out here. I mean, it adds to our floor space, but really, the purpose of it is to give us access and maintain this equipment. The other thing I pointed out up here, we have a whole bunch of utilities at the ceiling here, just below the base of the laboratory floors, and all of our specialty gases and fluids and services that we provide to the gloveboxes and to the laboratories are all plumbed from down below. So it's a series of nitrogen gas, hydrogen—, nitrogen helium, uh, we've got a rad liquid waste line,— Are we doing good on time wise?

[BRUCE MACALLISTER, FACILITATOR]
We are just about there.

[TOM WHITACRE]
All right. Let me go,— This is another view of the, of the fan room we looked at before. Just kinda'— We have a whole series of banks of fans of multi-stage HEPAs. Next.

[LANL Slide 28]
[TOM WHITACRE]
This is, okay, all right, this is the actual, one of the laboratory modules right here. This is one of the trace elements that is being built out right now. You can see up above, we have, we have walls on either side. These walls are non-load-bearing, so in the future if people need to expand or reduce modules, combine modules and make 'em bigger, we can just knock out these walls with studs and dry wall and reconfigure as needed. Up above, on top here, we have all of our supply air and all of our electrical distribution, is up on top. It'll be a series of stainless steel panels that will cover this once we're built out with the laboratory. These boxes hide the plates where all the specialty gases come from below the building, and there's a whole series of header pipes that distribute those services of case work that the laboratory equipment stands on. Let's go.

[LANL Slide 29]
[TOM WHITACRE]
Let's skip this one to stay on board.

[LANL Slide 30]
[TOM WHITACRE]
This is kinda one of the built-out modules that were done in the first phase of the building. It's kind of the chemical storage lab. To give you a sense, what we're looking for, a typical module, 12 by 60, up above is all that heavy, uh, electrical and ventilation support. Down in the bottom we have case, case work, laboratory cases, open fume, fume hoods, and we have our exhaust air, our contaminated air comes in through these, and is collected out through the building. So, a lot of photos.

[LANL Slide 31]
[TOM WHITACRE]
But I can talk about that later if we—

[UNIDENTIFIED PERSON]
Great.

[UNIDENTIFIED PERSON]
Thank you.

[UNIDENTIFIED PERSON]
All right.

[UNIDENTIFIED PERSON]
Where are we?

[BRUCE MACALLISTER, FACILITATOR]
We have time, about twenty minutes, for questions. Um, let's start right here. Start with your name.

[Inaudible voices off mike as mike is handed over.]
[ROBIN COLLIER, PRESIDENT AND PRODUCER, CULTURAL ENERGY]
This is Robin Collier, Cultural Energy in Taos. I was trying to understand the relationship between PF-4, where you do have the nuclear weapons production. This is, seems to be on the same geological structure as the new CMRR. You had to redesign the CMRR from a 300 million or 400 million dollar project to five or whatever billion dollar project. How safe is PF-4 if you're actually doing plutonium production in that building? And what is the age of that structure?

[TOM WHITACRE]
Tom Whitacre. I can talk a little bit about that. There's a, the seismic hazard had increased in 2007. I think a lot of the folks may be aware of that. I mean, so part of that process in evaluating the increased seismic hazard and potential ground motion at Los Alamos. There's been a process where the Laboratory has been going through to evaluate all these facilities and the potential impacts to those facilities. So, I don't know the specifics on PF-4, but I know they are in the process of doing that evaluation right now, and determining if anything needs to be changed or not, or equipment upgraded, or whatever. So, since the hazard changed sitewide, ya' know, it's prudent to look at all the nuclear facilities and take a look at what potential impacts would be. So. I don't know anything specific, but that's what the process they're working right now.

[ROBIN COLLIER]
So, what I'm trying to get at, if this, if this CMRR is going to cost five to ten billion dollars, what is going to be the cost of upgrading the existing plutonium facility if you're dealing with exactly the same risks?

[TOM WHITACRE]
I can't, I can't say. They are actually studying that right now and actually trying to determine what needs to be done and what those impacts are. And the results of that study, when they come out, will have recommendations in there, what the approach is. I don't have the specifics. Sorry.

[ERICH KUERSCHNER, ECONOMIST]
Yes. My name is Erich Kuerschner and I'm wondering if you could put up that slide that was called something, "Major Boost to the Local Economy"?

[LANL Slide
[ERICH KUERSCHNER]
That one right there. It gives the impression that what— I'm an economist, so I'm, I find this particular slide troubling because you get the impression that we're counting inputs as a value or benefit to the community. If I could make an analogy between well drilling where you've got two cases: in one case you are drilling and you reach oil, and it's a wet well; and in the other case you are drilling and it's a dry

well. In terms of the inputs that are spent on that, these are all costs of achieving an output. And, if, you give the impression here that you are counting these as benefits or a final product. Because as in the case of the dry well, all this money that you've money that you've spent will reveal itself as a cost. There are costs in both cases, but in the wet well you eventually have a return from which these costs can be recouped. So, what I see happening a lot in the nuclear weapons, and this is true in weapons, ah, ah, industry overall, is you have these— am I taking too long? Okay. I just, I just wanna' point that out. It's really an error in accounting. And it's very troubling, because as you know, the GAO, uh, uh, they made a statement that they found no basis to justify this. And I think this is the reason. Unless you can convince somebody that eventually you have a benefit, to count the costs that get you there, these are drains. They are not a boost. This is something that's gonna impoverish the communities, and not make them better off. And I'd like to see that corrected in future presentations.

[Multiple hands are up.]
[BRUCE MACALLISTER, FACILITATOR]
So, one second, please.

[STEVE FONG]
Thank you for your comments. Did you want me to provide any sort of response, or—?

[ERICH KUERSCHNER]
If you want to.

[BRUCE MACALLISTER, FACILITATOR]
Just leave it [referring to microphone].

[STEVE FONG]
The meaning behind this, one of the messages is that, the amount of resources it's gonna take to construct the facilities is gonna be rather large. We are gonna have several hundred engineers full time for the next ten years, uh, watching through and designing the project, bringing it up to speed. We'll also have workers and craft workers, somewhere will peak out, typically, —nominally there will be about 500 craft workers that will be employed throughout between now and 2022. And as well as peaking out at about 800 craft workers. All of the contracts that we let will have New Mexico gross receipts tax. It's different than the old UC [University of California] system. So there's gonna be a large influx. It's not only here locally, but throughout the country when we start ...

[Rest of answer and part of next question missing as tape is being turned over.]

[ERICH KUERSCHNER]
.... impression that, just because money is going in, that this is a, a net benefit to the community. I would say it's the exact opposite. These engineers are being taken away from building electric cars. I mean, Japan has taken their engineers out of nuclear weapons now for twenty-five years. They have a car that, ya' know, they have a ten percent growth rate for three decades, and we are struggling at three percent and I say it's because we have this nonsense accounting in the costs. We can't distinguish what is a benefit and what is a cost in the weapons industry.

[STEVE FONG]
Just one more statement. So, again, not gonna get into a debate about, ya' know, what you consider a drain or not. But, I do know that the local engineering community, and we've talked with a number trade unions. Everybody is very interested in this pursuit of construction of the Nuclear Facility. It means a lot to a lot of local engineers that are out of work today in the local community. But I'll just leave it at that.

[BRUCE MACALLISTER, FACILITATOR]
Another question. [Inaudible words] you had a question? Would you start with your name please.

[BEATA TSOSIE, TEWA WOMEN UNITED]
My name is Beata Tsosie. And I was wondering, this creation of a thousand new jobs. These jobs will end in eight years. Correct?

[STEVE FONG]
At that point, that's for the construction of the facility. But the actual operations, this brings on, uh, again, what we're doing, we have 350 workers that we have office spaces for, that we are constructing for the long term. For the next 50 years. But that's just workers there. That adds on, there's a lot of maintenance support. Again, this is key when you look at Los Alamos, right or wrong, good or bad, if you don't like it, it is what is, there is a lot of support and mission support that happens in this facility. So it is critical. So there is a, a base structure. And what we need is, we need to find new engineers and new scientists to help us out to perform our missions. Nobody wants to go back into a 1948, old facility. They wanna go— we need to attract the best and brightest. These facilities, such as Rad Lab. You saw, it's a nice facility. It attracts people, the, the mind power that we need for the next fifty years for our work at Los Alamos.

[BEATA TSOSIE]
But the construction jobs will end in eight years.

[STEVE FONG]
And also, I need to, uh, in that consolidat—I had a picture of consolidation?

[BEATA TSOSIE]
But is it "yes" or "no"?

[STEVE FONG]
One more. I just wanna' make one other point.

[UNIDENTIFIED PERSON]
Okay.

[BRUCE MACALLISTER, FACILITATOR]
The question—

[STEVE FONG]
So—

[BRUCE MACALLISTER, FACILITATOR]
Yes, she does have the question of whether—

[STEVE FONG]
Right. Right, you're asking what happens to the workers and,— no the one map, the one with the facility, Nuclear Facility construction [talking about slides].

[STEVE FONG]
So there's a number of— I noted that there's a number of— oop, passed it; there you go! [talking about slides]

[LANL Slide 11]
[STEVE FONG]
Okay. Those construction workers will also be—, we have a number of line item projects that are on-going, that are similar up and down the corridor out there. So there's gonna be a lot of interest. So between skilled workers, once we bring up that skill set, there's a lot of other, although it's small in terms of the green footprint, there's also a lot of other construction activities that are on-going. We are not going to let go a skilled worker. In fact, we are gonna have other import skilled workers throughout the southwest. We've found that, to be cause for, necessary in the construction of the Rad Lab, where we had a lot of folks coming in in fifth wheels, coming on in, to provide that experience and support. We hope to build that support here in New Mexico, to provide that expertise in construction, not only for our facility, but for others that are also up and down the mesa. So, yes, once the contract is up with our project, we are gonna let people go. But they are gonna be skilled. And that skill perform set is also gonna be available for other line item projects that are located up and down the corridor. As long as, as well as, they are gonna have this nuclear experience too. A lot of what is happening in the United States is the nuclear energy is also on the upswing. So there is going to be that skill set. So, I think it's promising to be a craft worker, especially learning this kind of trade that we need at the quality level that we expect. And what we're going to expect out of these folks is that we do things safely. And, uh, that's, uh, we're gonna build up that, that basis here.

[BRUCE MACALLISTER, FACILITATOR]
Okay, we've got a number of questions to cover, so if we can keep on moving along, that'll be great. Because we do have limited time. Yes sir. Start with your name.

[JAY COGHLAN, NUCLEAR WATCH NEW MEXICO]
Yeah. I'm Jay Coghlan with Nuke Watch New Mexico. Um, first just a brief comment. I think it's deceptive to say that CMRR is not a pit manufacturing facility. What would be more accurate to say, is to say that it is the keystone for a pit manufacturing complex at TA-55. And, ya' know, you guys know full well, you can't have pit production without the analytical chemistry and materials characterization. That is the first step to pit production.

[JAY COGHLAN]
Now, leaving that aside, and I see how anxious the moderator is, some, some questions concerning the possible construction start date of the Nuclear Facility. First of all, I note that there's a 300 million dollar request for fiscal year 2012. Previous budgets broke down what was construction, what was design, what was equipping the RLUOB. In 2012, it's all "TBD," to be determined. So, where my question is going, Steve [Fong] as you know, there's a Supplemental Environmental Impact Statement. Maybe, NNSA will get it together to have a Record of Decision by, say, August or September. Uh, my question is, are you gonna to use some of that 2012 money to pretty much immediately begin construction of the Nuclear Facility? And will you have total estimated costs by then? And if you are not, will you so inform Congress that you are going to start construction without having total costs completed?

[STEVE FONG]
So, number of questions in there, Jay. Thank you. Uh, so first of all, we need to get the SEIS [Supplemental Environmental Impact Statement] behind us, before we commit to any construction or construction contract. So we're not going to perform anything that we can't reverse at that time. So, we're holding up everything in terms of construction until the SEIS is complete and the Record of Decision has been made. And you're right, that's about the August-September timeframe, Jay.

[STEVE FONG]
Now it is—we have notified the Congress of our intent to move on out. There's a lot of Congressional delegations that have been through, and we've actually been touring it around the sites. And it's also on

our data sheet that we expect to move out with some of the early infrastructure work first. And that early infrastructure work is part of the 300 thous— the 300 million that you talked about, or about that. It's gonna have to be, uh, that—we don't have a budget yet for even this year. So we're gonna have to see what Congress actually does supply. But yes, a lot of the early infrastructure work, we're gonna— a part of that is, again, next year, what you're gonna see for budgets is a completion of the REI for the Rad Lab. That's gonna be behind us. So all our future monies is gonna be for design and, then we'll get into a mode of early infrastructure, and then we'll get into the mode of the Nuclear Facility. Now you ask, when does the, uh, the total performance baseline get set. We will have the baseline for the early infrastructure facilities before we take off with it in the '12–13 timeframe. With that, that's gonna be a portion of the baseline for the Nuclear Facility also that we'll have in the 2013 timeframe. So you have to combine those two before you get to a bigger picture.

[STEVE FONG]
But we also have a third baseline that basically covers some of the, the outside, some of the final grading and some security features on the outside. And that's looking like in the 2015 timeframe. And at that point, you've got the total cost together. But until then, until all that time that we go through, we have a number of cost validations. And believe me, they are coming in through, once or twice a month. Everybody's looking at it as our design matures. Then we have a higher fidelity in terms of our numbers. We know how we are reducing risk at that point and our uncertainties by maturing our design before we baseline our facilities, Jay.

[STEVE FONG]
So I hope that answers your question.

[LANL Slide 11]
[SUSAN GORDON, ALLIANCE FOR NUCLEAR ACCOUNTABILITY]
Susan Gordon, Alliance for Nuclear Accountability. Um, so this is the slide I wanted to ask a question about. How many of the facilities that are on the left side of the slide, that are gonna, are gonna be consolidated into the Rad Lab?

[STEVE FONG]
Okay. Into the, into CMRR? Or—

[SUSAN GORDON]
No, the Rad Lab.

[STEVE FONG]
The Rad Lab? The Rad Lab takes the office portions which—look at that, it's kinda fuzzy isn't it? It looks like CMR, the CMR facility, which is this box here. It is, those folks that are in the current facility in CMR will be going to the, to the Rad Lab as their operational space. There's gonna be a transition between the old operations still going on and the start of the Rad Lab. And then, when we get the Nuke Facility up and operational, that's when we can turn off the Rad— the old CMR facility.

[SUSAN GORDON]
And so, all, so just that one, are, is gonna be consolidated into the new Rad Lab, and all of the rest of those are gonna to be consolidated into the CMRR?

[STEVE FONG]
No. No.

[SUSAN GORDON]
So how do you collapse all of those into those four sites?

[STEVE FONG]
Right.

[SUSAN GORDON]
Where are they going?

[STEVE FONG]
Roger, do you wanna pick up this?

[ROGER SNYDER, DEPUTY SITE MANAGER, LASO, NNSA, DOE]
Good evening. Roger Snyder. I'm the deputy site manager up here at the NNSA site office. This is a progression. And so, you can't look at it as today and tomorrow. It's been a progression that we've been doing for over the last decade. So we've been consolidating and closing operations as we no longer needed certain aspects of what the development, or certain aspects of research. One of these examples, we moved operations to Nevada. Actually it's on-going right now, but it started a few years back. That's one of the red boxes. A lot of them are just plain consolidations into CMR[R]: right sizing, reduction, our waste facilities are getting smaller, so our facility that we are supporting is also getting smaller. So if you look at most of the work that you're talking about, in terms of box consolidation, for the little red boxes, CMR[R] is our primary replacement, is what we are doing with this new facility. So, we're moving over in RLUOB. We're gonna move the offices. We're gonna move some of the light lab activities, and then, with the rest of CMR moves over with the rest of the Nuclear Facility. And then as we do that, we actually can discontinue operations even further. Does that give you just a general sense—

[SUSAN GORDON]
I just think this is a very misleading slide, then, because the implication is that once these new facilities are built, then we are getting rid of all of those others. And that, that is really not what you're— what is happening.

[ROGER SNYDER]
The intent, and we'll take an action to make sure we clarify the intent, but the, the intent was really to show that, from the Los Alamos National Laboratory perspective, we are on a pack, path of continual consolidation. And so this is our next step to get to that far right, which is the 2018 timeframe, where we just have a few points of the Nuclear Facility operations continuing.

[ROGER SNYDER]
So, it's showing the trend that we are continuing on. This is the next step in that activity. But I understand. It wasn't intended to show CMR[R] as the only impact. I understand.

[BRUCE MACALLISTER, FACILITATOR]
Okay, we're gonna have time for two last questions, and then we'll move into the Interested Parties presentation. And then we'll have another round of questions after that. So.

ROGER SNODGRASS, SANTA FE NEW MEXICAN]
Roger Snodgrass for the New Mexican. Um, I wonder if you could talk about the status of the design changes that would lower the cost of the CMRR and, uh, talk about specific design changes that you are considering and what the tradeoffs might be between one and the other.

[STEVE FONG]
Thanks Roger. Uh, so every day on the project we challenge ourselves to think about ways to doing things better and cheaper. More efficiently. Uh, there's been a proposal by the Laboratory that I think has been circulated. I actually saw you guys reference that. So, it's uh, I guess it's out there. But um, no, we have to, we have to review that information. We receive, and we look at, there's not an engineer on the project that doesn't question, is there a better way to do things? We challenge ourselves to do that. And this is, just part of normal progressions. We receive that, a proposal. It's just a concept. We also have to go through and look at the basis for all that. And we have been accepted, and from the NNSA perspective. We have to look at it from a variety of aspects. We have to look at it from a safety basis, making sure that our control sets all agree to a movement in design. We have to look at it from a cost and schedule perspective also. We haven't made any, uh, decisions on that. We are gonna have to go through the merit of that. Once we do that, it's at that point, we'll make the decision to incorporate and move it along. This is just the beginning stages of that review.

[STEVE FONG]
Now there was also, I think it was coupled with the Defense Board. I think there was a coupling there. Yes, after we make the decision to either incorporate or not, we're at that point, we're working with the Defense Board to understand how that impacts our safety basis documentation and our design documentation. Making sure that the control sets that we have established thus far, that we think are pretty darn sound, are still sound. We have to go through that rigor. We can't— we are not gonna give it up. We've, over the past number of years have been incorporating our safety in our design. They're seamless. They're together. So when you have one change, such as some of those that are proposed, it has ramifications throughout the project. And we don't take that stuff lightly. It's gonna take a lot of study. And it's just the beginning. So, uh, we appreciate new concepts. Uh, and, uh, again, we put that on ourselves, to challenge ourselves.

[BRUCE MACALLISTER, FACILITATOR]
Sir?

[ROBERT CHAVIS, HONOR OUR PUEBLO'S EXISTENCE, THINK OUTSIDE THE BOMB]
Yeah, I'm Robert Chavis. I'm from Honor Our Pueblo's Existence and TOTB, Think Outside the Bomb. And one question I have for you, I understand that CMRR is not a plutonium pit facility, manufacturing facility. But the question I had was, the six metric tons of nuclear materials. What exactly were those materials?

[STEVE FONG]
That material has a number of forms. It could be, uh, it could be a liquid, a powder, a solid. Uh, it's in a variety of forms. It is, these materials would be in containers, and these containers are designed, they are special containers that are resistant to impact. We know everything about these containers. They are so-called certified containers. They will be held in a vault storage area. And there's, uh, it's holding plutonium, usually plutonium metals. And that there are a lot of unique characteristics that we have to make sure that in the storage of that stuff, that we do it safely. And it generates heat, for instance. We have to make sure, that, uh, what happens if the fans turn off? What happens to the heat load of the facility? Is it okay for those canisters to sit there without air blowing on them? How long does that take? What are the thermal characteristics of such a shell under such an event? What happens if there's an earthquake or a fire? All those things are being considered. And also for the protection of the worker. We want to make sure that those people that go in and actually retrieve that stuff, that they can do that safely, and we don't wanna have a worker exposed unnecessarily.

[STEVE FONG]
So we're trying to build those features on in, into our design. So, yes, six metric tons. It's going to—, lemme say this, we only limit, we are only gonna limit the, uh, we have a specific limit to what we allow to, out, actually out in the lab operations. In most cases, all of that, uh, a large majority of that, significant number of that, is kept in the vaults. In a long-storage vault. Even at night, we ask them to put 'em away in convenient short-term storage vaults. So, yeah, we wanna limit the amount of material that's actually out there and exposed. And all of that is in, part of our safety strategy. So, thanks for the question.

[ROBERT CHAVIS]
Yeah, so basically you are telling me that it's not a plutonium pit manufacturing facility, but it's gonna be housing six metric tons of plutonium?

[STEVE FONG]
Yes, that's correct.

[BRUCE MACALLISTER, FACILITATOR]
All right. Our time is up for this window of the questions and answers. But we will have another round of Q and A's after the Interested Parties presentation. So, let's take a second to get that presentation set up, and we'll roll right into it.

[UNIDENTIFIED PERSON]
Can I get [rest of question inaudible].

[BRUCE MACALLISTER, FACILITATOR]
Sure, while we are getting set up.

[PETER NIELS, LOS ALAMOS STUDY GROUP]
Great.

[BRUCE MACALLISTER, FACILITATOR]
Just very briefly.

[PETER NIELS]
I noticed that the questions were quite pointed, and the answers were very long-winded. And we could have had more questions if the answers were more pointed.

[MORRISON BENNETT, TRANSCRIBER]
Your name please?

[PETER NIELS]
My name is Peter Niels.

[UNIDENTIFIED PERSON]
Peter Niels. Thank you.

[UNIDENTIFIED PERSON]
Thank you Peter.

[Inaudible question or comment off the microphone]

[STEVE FONG]
Point taken. Thank you.

[BRUCE MACALLISTER, FACILITATOR]
Okay.

[Interested Parties Slide 1]
[SCOTT KOVAC, NUCLEAR WATCH NEW MEXICO]
Hello. Can you hear me? Welcome everybody to our eleventh meeting. This is the Interested Parties presentation. Um, good to see everybody here. There's a few handouts, but they went fast. I'm sorry. I'll print out more next time. Our handout will be available on our website, nukewatch.org. Tomorrow if it's not already up there.

[Interested Parties Slide 2]
[SCOTT KOVAC]
This is our eleventh meeting. Ah, Interested Parties, several of whom are here tonight. Ahm, next, I'm gonna run through this.

[UNIDENTIFIED PERSON]
[Inaudible words]

[Interested Parties Slide 3]
[SCOTT KOVAC]
I'm sorry, I'm Scott Kovac with Nuclear Watch New Mexico. I'm sorry. Thank you. Here's a brief outline of our presentation. Okay.

[Interested Parties Slide 4]
[SCOTT KOVAC]
We can start with the cost of the Nuclear Facility. In April—, we learned that in April, based on 45% of the design, the estimated cost was 3.7, between 3.7 and 5.8 billion dollars. That works out to at least $10,000 a square foot. We are wondering, is there a maximum cost for the Nuclear Facility? And how much of this cost is because of the required seismic requirements? It's our feeling that the taxpayers are paying a high price to have pit production continue at Los Alamos. Thank you.

[Interested Parties Slide 5]
[SCOTT KOVAC]
This is a chart of the increasing total project costs estimates, by year. Basically, since Fiscal Year 2008, to uh, to 2012, the cost increased five—, the cost estimate increased by five billion dollars in four years. Thank you.

[Interested Parties Slide 6]
[SCOTT KOVAC]
Meanwhile, we learned that the gross square footage went down just a little bit, in one year. So, it's about 90—,

[UNIDENTIFIED PERSON]
[Inaudible question or comment off mike.]

[SCOTT KOVAC]
[Continuing]
—went down about 11,000 square feet. Thank you.

[Interested Parties Slide 7]
[SCOTT KOVAC]
This, um, our March meeting, Interested— settlement meetings, are right after the Congress releases it's annual Congressional budget request. And the President releases his Congressional budget request. This year we learned that there's a three hundred million dollar request for money, uh, for the CMRR project. We know that 29.9 million is for the recently completed Rad Lab, for equipment for that Rad Lab. But, exactly how will the remaining 270 million be spent? It's literally, in the budget request, it's literally "to be determined."

[Interested Parties Slide 8]
[SCOTT KOVAC, NUCLEAR WATCH NEW MEXICO]
Um, it could either be, the increased funding levels are said to support construction completion by 2023 or, and/or to help achieve 90 percent design maturity by 2012. Thank you. Um, so my question is, is all the remaining 270 million dollars for design?

[Interested Parties Slide 9]
[SCOTT KOVAC]
To date we estimate that over 400 billion has been spent on design through 2011, it will have been spent through 2011. Um, if it's possible, the 270 million request for 2012 will be added to that 400 million. Ya know, could the design end up costing one billion dollars?

[SCOTT KOVAC]
It took six years to get 45% of the design, and it's now planned to double the design and get it to 90% completion in two years. When will 100% design be achieved?

[Interested Parties Slide 10]
[SCOTT KOVAC]
Um, as far as where the money went, or is going, um, I found it useful to compare it to the last year's Congressional budget request, Fiscal Year 2011, estimated for Fiscal Year 2012, that 120 would be spent on design, final design, and that 186 million would be spent on construction. This year, same page, but they backed the numbers out. They are all "to be determined." So, um, so it's just hard to tell. Where the, where the construction is going, I mean where the money is going. We can only assume it's all going for design, the whole 270 million. Thank you.

[Interested Parties Slide 11]
[SCOTT KOVAC]
The final baseline estimate is due in 2013. We were wondering what is planned before then, and, ya know, explain how the Congressional funding will be spent between now and 2013. Thank you.

[Interested Parties Slide 12]
[SCOTT KOVAC]
A lot of these questions, I'll just explain. We submit questions to the, to the Lab, to the nice people holding these meetings, and, every year. And we hope to get them answered. So these are questions that we've asked the Lab.

[SCOTT KOVAC]
This is a statement out of the Congressional budget request, stating that the design, I mean the NF [Nuclear Facility] project, will be split into smaller subprojects, um, including site utilities and construction. We want to know when these will start and how much they will be.

[Interested Parties Slide 13]
[SCOTT KOVAC]
Um, moving on to the Defense Nuclear Facility Safety Board, the DNFSB. In 2009 the Board worked with the Lab and DOE to address some of the Board's concerns during the preliminary design. These concerns were mainly seismic concerns, seismic design concerns, and the Board certified that the Lab had good designs and good, a good plan. Ya' know, the Lab agreed to meet certain specific design requirements. In 2010, NNSA, which is a division of DOE, ah, an agency of DOE, contemplated several changes to the safety strategy and design for the NF. Ahm, the technical basis for these potential changes has not been provided.

[Interested Parties Slide 14]
[SCOTT KOVAC]
Some of the questions that came up in 2010 are, Is the Lab, ya' know, what is the, why, I'm sorry, the Lab was examining the potential elimination of fire suppression in the long-term vault. And the day vault. And this is the vault, the long-term vault, is the one that would have the capacity of six metric tons.

[SCOTT KOVAC]
They also were suggesting the potential elimination of fire suppression in non-inert gloveboxes and open-front hoods. Now this, this, these are questions, these questions are DNFSB questions back to the Lab. And the Lab, and DNFSB is awaiting a response. They [the Lab] originally had a 30-day period to respond and have asked for an extension, and I do not know what the extension'll be. Thank you.

[Interested Parties Slide 15]
[SCOTT KOVAC]
Ahm, the DNFSB wants the Lab to respond to why they are considering revising the safety class laboratory fire suppression to safety significant. Safety class is the higher classification. So, the Lab is considering revising the fire suppression system to a lower classification.

[SCOTT KOVAC]
The Lab is also considering lowering the, revising the safety ventilation system, the ventilation system from Seismic Category 3 to Seismic Category 2. Uhm, Seismic Category 3 is a more rigorous classification. So, the Laboratory is considering revising down, revising down the ventilation system. Thank you.

[Interested Parties Slide 16]
[SCOTT KOVAC]
The DNFSB was wondering, um, about lowering the nuclear material at risk. Ahm, and they're—the DNFSB is wondering if, does this reduction represent a change in the Laboratory mission requirement? Ya' know, the six metric tons of material is a lot of material to having around. And, also, there was an interesting question about the elevation, uh, potential changes to the elevation. And would they impact the on-going structural and seismic analysis for the facility. Thank you.

[Interested Parties Slide 17]
[SCOTT KOVAC]
Along about the same time in February the DNFSB had its annual report come out. And, once again, they were, did not, they continued not to like the Lab's combining of two Critical Decisions. Combining these

Critical Decisions has been done without regard to meeting the safety and design aspects of DOE's standards. And the Board said, it is, the Board has objected to the shortcuts with varying degrees of success.

[Interested Parties Slide 18]
[SCOTT KOVAC]
What this looks like, is, as this is a page out of the Congressional budget request, here's the Critical Decisions 1, 2, 3, and 4. Um, we are trying to approve baseline performance and start of construction, and you can see that for 2012, those two are estimated to be in the Fourth Quarter of 2012, um, Fiscal Year 2012. This number is different than is in other places in the budget where the approved, the baseline performance is stated to be in 2013. So I just need to get a clarification on which, which year is the correct year.

[Interested Parties Slide 19]
[SCOTT KOVAC]
Also in February, was the general— the Government Accountability Office report. And it was about the complex as a whole. And not knowing the cost of, that was going on. And basically they've said NNSA does not have sound basis to justify decisions and plan the budget increases.

[Interested Parties Slide 20]
[SCOTT KOVAC]
So the Nuclear Facility is apparently getting any money that it wants, or, has unlimited, not unlimited, but has a fairly large budget. Um, the old CMR facility, um, is, is suffering from deferred maintenance, and unfortunately we are gonna be required to use the CMR facility until '23. I mean, I don't mean, unfortunately, I mean, unfortunately, the plan is to use the old CMR until 2023 while deferring maintenance. I don't understand. They also in the same paragraph mention reducing hazards. So, ya' know, we're deferring maintenance, and working, ya' know, working on the risk mitigation, which seems like two different things to me. And maybe I can get an explanation.

[Interested Parties Slide 21]
[SCOTT KOVAC]
This is a slide of the cross-section of the geology of, under the Pajarito Plateau. Um, each color is a different ash flow, lava flow, a different sediment or something. You can see why estimating the seismic impacts on a facility there would be very difficult. Each, each different, ya' know, each different geologic layer has a different response to seismic activity. Also, notice the, these lines here represent a fault zone. The Rio Grande River is a rift valley at that, at that point, and also, and there's a dormant volcano nearby.

[Interested Parties Slide 22]
[SCOTT KOVAC]
Um, so, to address these seismic issues, the Lab is planning to, pour 225 thousand cubic yards of concrete. So, um, I'm just wondering about, has there been an elevation change? And the DNFSB annual report referred to the Nuclear Facility as "mostly buried." So, I had not— was wondering about that. If there's been any change from this, from what we've seen before. Thank you.

[Interested Parties Slide 23]
[SCOTT KOVAC]
This is a picture from the sitewide environmental impact site showing the 225,000 cubic yards of concrete under the proposed facility. Thank you.

[Interested Parties Slide 24]
[SCOTT KOVAC]
Uhm, the need for the NF, for the Nuclear Facility is not urgent. There's no new warheads, new design warheads coming up. Lifetime studies have found that pits last 85 years. There's thousands of pits in storage. Existing pits can be re-qualified. Our existing stockpile is certified annually.

[Interested Parties Slide 25]
[SCOTT KOVAC]
Ahm, in addition to just certifying the stockpile annually, the Department of Energy also performs what are called "life extension programs" on the existing warheads and on the enduring warheads that in the stockpile. By the time that the CMR[R] Nuclear Facility comes on line, estimated now, 2023, most of the life extension programs will be over. And the only one that is on the schedule now is the warhead called a "W88," which is a larger submarine-launched warhead. And when it comes on line, ya know, the CMRR Nuclear Facility will be able to join in that life extension program. However, LANL has already made W88 pits, just this year, and finished making approximately 30. So when the CMRR Nuclear Facility comes on line, it won't be needed for the life extension program as best we can tell.

[Interested Parties Slide 26]
[SCOTT KOVAC]
Also, when the Nuclear Facility comes on line, further arms reductions will most likely be in the works with increased further nuclear stockpiles. Also, in 2023, the Cleanup Consent Order will be over, and so, the NF, Nuclear Facility will be too late to help for waste management or environmental sampling. Most of that work will be done too, lessening the need for the Nuclear Facility. Thank you.

[Interested Parties Slide 27]
[SCOTT KOVAC]
This is a representation of the budget request for the Laboratory for Fiscal Year 2012, showing, the green lines are the 2012 request, the red is the 2011 request, which we know is still— we don't really know what that number is or is gonna be. And we may never know, or it may take a while because of the continuing resolutions. But we do know that the Fiscal Year 2012 appropriations were, the actual money spent, and that's the blue lines. The Laboratory has yet again increased its, um, nuclear weapons activities budget over previous years. We are happy to see that, for the first time since, that I know, the cleanup budget is now in second place. And we applaud that move. Um, but it just shows you, ya' know, most of the budgets are under 400 million; weapons activities, 100— 1.6 billion dollars.

[Interested Parties Slide 28]
[SCOTT KOVAC]
Um, the CMRR Nuclear Facility would provide a capacity for the Lab to produce up to 80 pits per year. We consider it a, an addition to the Lab's plutonium production complex that will enable the Lab to produce 80 pits per year.

[Interested Parties Slide 29]
[SCOTT KOVAC]
The Lab estimates that the remaining cost of cleanup to be 1.5 billion, for the type of cleanup it feels necessary. But one option, removal of waste for one site, Area G, is now estimated at 32 billion dollars.

[Interested Parties Slide 30]
[SCOTT KOVAC]
Many feel that the completion of the Consent Order is at risk, or at least, real cleanup at the Lab is at risk. Um, the Lab should put construction of new projects including the CMRR on hold until all requirements of the Consent Order are met. Cleanup, don't build up. Thank you. Any questions?

[UNIDENTIFIED PERSON]
Will that [inaudible words off mike].

[UNIDENTIFIED PERSON]
I told ya!

[UNIDENTIFIED PERSON]
See. All right.

[Applause]

[BILL WADSWORTH]
Hi. My name is Bill Wadsworth. On the one hand you seem to be questioning the vast amount of money that's being asked for to construct this facility. On the other hand, you're questioning the reduction in the tremendously expensive requirements. And I'm curious which way you'd like it to go? Would you like to spend less money? Or would you like to comply with the higher requirements?

[SCOTT KOVAC]
Thank you. I'm not sure that those reductions in requirements are due to budgetary concerns. I would like to hear from someone at the Lab stating that that's an actual budget concern and how much it is. We don't have access to those kinda numbers. So, maybe, maybe they can help with that. I'm not aware that that's an actual budget— the reason they are lessening the requirements is because of budgetary concerns. Thank you.

[BRUCE MACALLISTER, FACILITATOR]
Other questions? [Pause] Other? We were short on time for the first round of questions. So we have time to go back to those questions on that as well. So Joni [Arends], I saw your hand first. Let me just get a mike back to you.

[JONI ARENDS, CONCERNED CITIZENS FOR NUCLEAR SAFETY]
Joni Arends. Concerned Citizens for Nuclear Safety. So, Scott [Kovac], is the Laboratory gonna' answer some of your, of the questions? Or—

[SCOTT KOVAC]
I would hope so.

[JONI ARENDS]
Okay. So, when does that start? When would that start?

[BRUCE MACALLISTER, FACILITATOR]
Well, in fairness to the folks from the Lab, the, there's quite a list of questions there. So, I think maybe, it might—

[SCOTT KOVAC]
But in all fairness, I did turn in this list weeks before.

[BRUCE MACALLISTER, FACILITATOR]
Okay.

[SCOTT KOVAC]
Many of these questions are taken directly off my list of questions I've sent to them.

[BRUCE MACALLISTER, FACILITATOR]
Based on your presentation, would you like to identify some of the questions that you think would be good priorities for comments?

[SCOTT KOVAC]
Yes. Sure. I would like to start with—

[Few words with Bruce MacAllister and Scott Kovac talking at the same time.]

[SCOTT KOVAC]
I guess my first question is the budgetary question: how is the 270 million dollars gonna be spent this year?

[BRUCE MACALLISTER, FACILITATOR]
Okay.

[STEVE FONG]
So uh, let's talk about—this is Steve—let's talk about this fiscal year. Wanna' start here, or next year?

[SCOTT KOVAC]
This year, the Fiscal Year 2011 is so messed up, I think that if we go to 2012—

y[STEVE FONG]
Okay, 2012.

[SCOTT KOVAC]
—we'd be happier.

[STEVE FONG]
2012. Uh—

[SCOTT KOVAC]
You can speculate farther into the future.

[STEVE FONG]
Okay, let's speculate it to 2012. So, in 2012, we have a Record of Decision behind us. We know which way we're headed. Assuming that we choose an alternative, to build and construct the facility that we presented earlier, at TA-55, two facilities, nuclear facilities, uh, what we're gonna start off— in 2012, we're gonna use some of the funds, which you had outlined in there to finish off the Rad Lab equipment installation piece that Tom [Whitacre] was showing us. So we'll put the Rad Lab behind us. We'll turn over to Operations. Some of the funding that will be used in 2012 will be to further design, assuming that we pick the facility, and that's the facility we are going to—, we're off into continuing design and remove

the uncertainties, trying to mature our design to make sure that we understand and have the fidelity of that design so we could come up with the, a firm performance basis in the following year, before the facility itself.

[STEVE FONG]
Also during, in 2012, we're gonna begin a number of early infrastructure, uh, early infrastructure projects. In support of the Nuclear Facility. So what are those? Well, we have to relocate utilities. We've got to put in, uh, temporary construction utilities. We have to build a warehouse. We are going to be building a substation for power. Uh, we have a number of laydown areas that we need to make sure that once the—, all of the commodities that it will take to build the facility take space. We're constrained. So we're gonna have to find space throughout that [TA-]55 area to stage equipment and materials that will go on in. Also, the, the workers, uh, they deserve a place in which to have, to put their lunch pails and eat lunch in a sheltered area. They are gonna be building this facility over a number of winters and lightning events. We wanna make sure that they'll be able stage. So, there'll be nursing stations, that sort of stuff, the, those creature comforts for the workers to make sure that they can reduce some of the stress from, in, in a comfortable environment.

[STEVE FONG]
Um, what else am I missing? We're gonna—,

[TOM WHITACRE]
Batch plants.

[STEVE FONG]
—batch plant, concrete batch plants. That we will be installing a batch plant. Whether or not we need two is still to be decided. But at least a single construction batch plant will be constructed. Um, there's gonna be a number of trailers that we're gonna need. Construction trailers, a lot of infrastructure. We're gonna have to look at a, a number of— Greg?

[Greg Mello laughs and makes inaudible comment off mike.]

[STEVE FONG]
But there's a number of infrastructure items that we're gonna try to remove out of our way so that we can have an efficient start up of construction of the Nuclear Facility following that in the 2013 and beyond timeframe. So, that's what we're going— those are the work activities that will be being performed with the funds in 2012.

[SCOTT KOVAC]
Thank you. I guess I had a related question, is, which is the correct number, the final baseline estimate is in 2013, Fiscal Year 2013? I've seen—

[STEVE FONG]
This is Steve again. I'll just continue to stand. Uh, no, not quite. So they think it's— We—, there's that language in there that I typed up, and it was actually a data sheet, that was—

[SCOTT KOVAC]
I know that. You typed.

[STEVE FONG]
So, sub-projects. Think about the Nuclear Facility in three steps. The first step is the early infrastructure that I talked about. The second step will be construction and execution of the, of the Nuclear Facility.

That will be the second step. And that's in the 2013 timeframe. In 2015 and about that timeframe, we're gonna go for the— and baseline the last chunk. It's the stuff that, uh, it'll be such as the grading. It'd be the security perimeter fence design that we'll need to encircle the facility and make sure that that's all behind a secure perimeter fence along with TA-55. And at that point, it's all in, at that point. And that is at what point we'll have the entire TPC [total project cost]. And that is within our data sheet. That is what we've told Congress. That is what we told representatives when they come on out. So, we're communicating that. Uh, and it's up to Congress to decide whether or not they continue to fund this along that strategy.

[SCOTT KOVAC, NUCLEAR WATCH NEW MEXICO]
Thank you, Steve.

[STEVE FONG]
Scott, did you have other—

[BRUCE MACALLISTER, FACILITATOR]
Let's take some questions from the audience.

[GREG MELLO, LOS ALAMOS STUDY GROUP]
Steve, thanks.

[BRUCE MACALLISTER, FACILITATOR]
Introduce yourself.

[GREG MELLO]
Oh hi. Greg Mello, Los Alamos Study Group.

[BRUCE MACALLISTER, FACILITATOR]
Okay.

[GREG MELLO]
I just wanted to follow up and comment first. What Peter [Niels] said and what Scott [Kovac] said, um, Scott's, um, unpack what Scott said about "to be determined." Steve [Fong], there's not very much real information in this meeting. And that's my problem. And I'm sorry that I found that humorous, but we're, ya' know, it's a very serious matter. There's six billion dollars here at stake. And the project has experienced enormous cost overruns and time overruns so far. Part of that is because there's been a lot of vagueness. And I'm not saying that's your fault, but there is a problem within the NNSA with project management, a chronic problem. And it comes from scope creep, it comes from lack of specificity. Everybody knows about it. I just returned from two weeks in Washington, talking about these things with a lot of people on Capitol Hill. And this meeting is, while it is in some ways, it's a little bit helpful, but there, there isn't anything that a person could really sink their teeth into. And you can't really get the feedback that you need from the public or from other experts unless there's really specific things.

[GREG MELLO]
Now one thing I wanted to comment on, is that, yes there are, this, on Capitol Hill, *everyone* thinks of this as a pit production enabling facility. There are specific pits in mind. Ya' know, after this set of LUPs we have more. And, so, there's some information, which is, I think down at your level, that is thought of differently in Washington. But I wanted to ask you, first, two questions. Maybe, and then I, because I don't want to take too much time, there's a, over the last few months, there appeared a new plant building just to the west of PF-4, west of the PIDAS [perimeter intrusion detection system], called the "cold hardened lab." And I, it's kinda big. And I thought maybe you'd like to explain that one, since it's new to

us. And there's also a new office building, a new CMRR office building, a little bit farther to the west, that we never saw before. So those two new things. And the other is that ...

[Portion of Mello's question missing as recording tape is being turned over.]

[GREG MELLO]
... other alternatives.

[STEVE FONG]
Okay. Greg. Let me take the easiest one. The trailer that's just to the west of my trailer, basically, us feds are getting a little bit too big, so Rick's [Holmes'] crew and his acquisition group are gonna be moving [to] just the other side of the parking lot from me. So, we also are going to be growing in terms of federal staff, and support staff. So we, —the federal distri— We are co-located with the project team and Rick's team there. So, it's a matter of growth in terms of engineering, engineering staff, that have [inaudible word] through the project. And so it's a number of office spaces that are being constructed. And I think we're gonna have a move in here at the end of the month timeframe. So, uh, it's just, uh, office spaces for engineering and procuring, acquisition staff. Uh, so that's the easy one.

[STEVE FONG]
And then I guess the, the next question was, that I'll tackle, is the one regarding the questions of new design, thoughts about different ways, of, of programmatic requirements, some of the requirements in terms of the, the safety requirements, and looking at different ways, is that what you are referring to, the defense report, letter that, of the requirements basis—?

[GREG MELLO]
There was a question about the cold-hardened lab.

[STEVE FONG]
I know, but I'm just collecting that one for a second.

[GREG MELLO]
Okay. And then the other question is, alternatives, primary alternatives to the CMRR Nuclear Facility that will be reviewed in the SEIS, some of which won't— uh, in the supplemental environmental impact statement, one of which was in the notice of intent, specifically committing you guys to look at upgrading the CMR Building. And we haven't heard anything about that.

[STEVE FONG]
Yes, one of the options is to look at, into the SEIS. And a number of activities are going, on-going right now, to look at whether or not that alternative, that you noted, what is the feasibility of that, can that be— and what are those, can we actually do it? The feasibility. Look at the space. Look at the seismic addition. Look at the age of the building. Basically you are trying to use the old 1948 building, which has a seismic fault located in two of the wings. Can we build and upgrade that facility and build the CMR[R] facility right there? And look at the technical feasibility of that. So, yes, part of the team is, the SEIS, the SEIS team, that is in development of that analysis have been asking us, the engineering staff, questions about that, as well as— there was a, past engineers throughout the Laboratory that attempted to upgrade that facility in the past. That was the precursor to the CMR[R] facility. So we are resurrecting some of the, the people in the past, the engineers in the past, that attempted to look at that upgrade, and re-look at that again. Look at that, give it a serious look. Take a look at, should the investment go with the old CMR facility? Can we can we upgrade that? So, that's all I know about it Greg. Yes, the analysis is on-going. There is a dialog, but no, I don't have anything to report in terms of anything quantifiable.

[STEVE FONG]
Now, lemme'— I can say I answered that one. So, in terms of new facility space at TA-55, I'm not aware of that. I do know that around the facility there is a large project that is underway. That's called the NMSSUP project. And that's the security perimeter upgrade project. So there are a number of facilities that they are building throughout there. Entrance control facilities, uh, uh, truck inspection facilities. And in terms of a, another facility, a programmatic facility, I'm not the person to know about that. But, if I—

[Unintelligible words off mike]

[UNIDENTIFIED PERSON OFF MIKE]
Who would?

[STEVE FONG]
Roger?

[ROGER SNYDER]
Greg— This is Roger Snyder. In the interest of giving you a complete [answer], these maps that you've seen of the corridor are developed by the Lab long-range planning folks. And the project uses overlays as, as a, in a geotechnic layer. They just layer each of the overlays over top of the map. We saw the same thing you did. A building popped up on one of the versions. Uh, a "cold hardened facility" was the title. It was a "what-if" analysis, looking at the Lab to see, could we put additional facilities on the Mesa if we needed them? You won't see it on future versions, because after that version of "what if" it's not in our next decade of planning to put anything in that same proximity. And so you won't see it again. I don't want you to think that we are obfuscating, but it was a surprise to us when we saw it. It was a remnant from the planning process, which gets years ahead of anything real. So you won't see it in our ten-year site plan or anything like that.

[TOM WHITACRE]
One clarification on that too. What we are planning on doing is part of that infrastructure development, is developing that area by TA-48. And that area on that map, that will show, we are actually planning to use that to store buses that haul the crap back and forth. So that particular location. So there will be something, just a gravel parking lot to store buses for crap transport in that area.

[BRUCE MACALLISTER, FACILITATOR]
Another question over here.

[LISA PUTKEY, THINK OUTSIDE THE BOMB, TEWA UNITED WOMEN, NEW MEXICO LIFE]
Actually, it's three questions. My name is Lisa Putkey. And I am with Think Outside the Bomb, the Tewa Women United youth group, uh, New Mexico Life— a bunch of groups. Um, and I am here to ask you: (1) Um. You said that, I heard the thousand jobs number, you said lots of jobs, I was, and you said that lots of local engineers were getting excited and stuff. I'd like to know, um, in that thousand jobs, how many are local jobs? How many local people around, by local, I mean Northern New Mexico, Española, Valley, how many of those jobs do you expect to be local? Be filled? (2) This is a very costly, expensive, and time, it's gonna' take up a lot of time, this project. I would say that it's pretty much a big priority for Los Alamos National Lab to make this new CMRR and this Nuclear Facility. So, your mission is national security. So I'm wondering why the— when we already have about 10,000 nuclear weapons, like 2,000 of which are around on submarines and stuff, ready to, to strike for our security. I was wondering how, um, how the production of new plutonium pits and new nuclear weapons, how that is a priority for our nation's national security. I'm wondering how you define national security, 'cause there are a lot of other things that I would think are priorities right now, for our minds to be looking into. Um, and then the last

question— so I guess that was three. But, um, the last question is, you said something— I'm sorry, what's your name? In the green shirt?

[STEVE FONG]
I'm Steve.

[LISA PUTKEY]
Steve. Hey Steve, Lisa. Um, so I have a question for you. You said something about, you know, the CMR is an old building, we really need to modernize it, get it cutting edge for our new engineers, to bring new engineers into the, into the nuclear science. You said that earlier. And that reminds me. I went to undergraduate, University of California Berkeley. And I remember all my engineering friends and stuff, they, a lot of them went on to Los Alamos and Livermore to work there. But I remember, whenever they had job career fairs, everything, whenever they were going off in to their jobs, it was always *military* sciences, *military* engineering, this type of, what was making the money where they were recruited to. And so I saw that as a part of the larger nuclear industrial complex, a military industrial complex in our nation. And so I'm wondering also is this construction of this new facility, as a priority in Los Alamos, is this a part of the nuclear industrial military complex of the United States of America? Those are the questions. Thank you.

[STEVE FONG]
Well Lisa, those are some big questions. And thank you for them. Three questions. Uh, and I'm gonna ask a couple of people to help me out. But in terms of the last one, yeah, the uh, again, not a very attractive facility, the CMR facility. It kinda looks like a prison. Um, and I don't think anybody in— really deserves to, to have facilities such as that. And yes, we are trying to attract the best. And the Rad Lab, yes we try to make that as, uh, as inviting as possible. The CMR facility has a role in a nuclear weapons complex. But it also has a role for a lot of other capabilities that I talked about earlier. Okay. So, yes, does it support nuclear weapons production? Yes, it does. Does it support current weapons, in terms of surveillances, understanding, uh, how the weapons that are deployed out in the field, how safe are those? How do you know? Well you take those out of service and you study those. Those, that chemistry, that study, to make sure that the weapons that are deployed have to go through a lot of science and analysis. That analysis is done in these facilities that we are building in CMRR. That is a, another key purpose of this facility, making sure that the weapons that are deployed are safe. Another thing is, okay there are weapons throughout the world. Uh, where are they? What are our adversaries, or something clandestine happening? What's going on in the world? Anything in terms of analysis that needs to be done to figure out what's happening in terms of nonproliferation, to make sure that we understand what's happening throughout the world? That is done in— that chemistry that's required, is done in these facilities. New advanced fuels. Looking at nuclear reactors. Done in these facilities. General research. People that have an experiment, and they are trying to understand properties of materials, it's done in this facility. So, yes, it's, it does have a—, it does support weapons, but it also supports what the Laboratory also does very well, is general research. And it is all of those things. It is a capability base. If we had no weapons, would we still need the facility, you might ask. I would say, "Yes." There's— as long as there is science, and people are trying to understand materials, this facility performs that chemistry. Uh, so, uh, I, I also try to answer that at a high level. And I think that also think that gets into your second question.

[STEVE FONG]
But the first question you asked was about local jobs. I wanna' talk to— well, Rick [Holmes], you wanna take over? Since you've been so quiet?

[RICHARD A. HOLMES, CMRR DIVISION LEADER, LOS ALAMOS NATIONAL LABORATORY]
Rick Holmes. Today there's about 350 people, most of which who live in the local area, and I'm gonna' define it, a few live as far as Albuquerque who commute every day. So, but that includes people on my

team directly, engineers, acquisition people, people doing safety analysis, construction oversight. I have about 80 to 100 craft, each day, working inside the Rad Lab. And then there's local contractors who are doing design work. Merrick, who's here in town is doing some of the design work for the gloveboxes and those kind of things. The thousand that Steve had talked about, in terms of the craft peak, that'll be down when we get to installation of mechanical-electrical systems and whatever flavor of a nuke facility, if the United States decides to build one. That'll be years down the road. But today, the number's around 350.

[UNIDENTIFIED PERSON]
[Inaudible question off mike]

[RICHARD A. HOLMES]
Local.

[UNIDENTIFIED PERSON]
[Inaudible words off mike]

[RICHARD A. HOLMES]
I'm not counting designers who are in Chicago in that number. These are people who are local. I define local— I'm on the Los Alamos Employees Scholarship Board. I define local as the seven counties that make up the area right around here in Los Alamos. And a few of them do commute up from Albuquerque.

[Inaudible question off mike]

[STEVE FONG]
I'm sorry. That was a second question. Roger. Come on.

[STEVE FONG]
I'm sorry. I skipped that one.

[ROGER SNYDER]
Amazing how things roll uphill. This is Roger Snyder. Lisa, I appreciate your energy, but it went by really quickly. Can I ask you to repeat it?

[LISA PUTKEY]
How do you define national security and is that mainly in a military term here?

[ROGER SNYDER]
I think Steve [Fong] addressed part of the issue in that we do a variety of missions and this is a capability. So, in terms of national security, the Lab and NNSA are charged with providing the nuclear deterrent. And again, deterrent being hopefully never to use. Uh, but from that standpoint, the national security aspects, both comes from the protection of that deterrent and it's potential availability as a deterrent, meaning it could be used if need be. And so one of the challenges we have in this context is that not only are we developing, keeping the capabilities alive, as our engineers transition to a new generation of engineers, we are also approaching two decades of not blowing anything up in the desert. And so we now have to— those two thousand, or four thousand, or eight thousand, I think you used ten thousand, weapons that we have out there— those are riding around and we have to life-extend them. So, it's like taking an old car and putting new parts on it. But you can't start the car. And so, you've gotta have the surety of the science behind you. So that's how all the science and all the capability fits together. So from a national security— I define national security personally in the context of the deterrent. And so from that standpoint, what keeps us safe, by keeping others at bay. And so, — But you can also define it in terms of information, etcetera. So, it's a, it's a broad term.

[UNIDENTIFIED PERSON]
[Inaudible word or two]

[ROGER SNYDER]
But thank you for your question and energy.

[MARILYN HOFF]
My name is Marilyn Hoff. I'm from Taos. I'm affiliated with several different organizations. Um, when I come to these hearings by LANL, I'm always struck by the ingenuity of your euphemisms and, um, especially the first one was how you were constantly referring to "nuclear materials" until somebody pointed out that actually you are talking about plutonium. Somehow, it's less alarming to say "nuclear materials" than "plutonium." Well, um, another thing that seems to often go unmentioned about plutonium, um, is that plutonium can catch fire spontaneously. And so that when you start talking about fire suppressant systems, um, they are really very essential in a plutonium plant if you judge by Rocky Flats, which almost rendered the City of Denver uninhabitable by having a really very large plutonium fire. So, um, I find it very alarming to think that there would be fire suppressant systems that are now being taken out of the budget for— Of course, the building, I don't approve of the building of 'em in the first place. Um, the other thing that I wanted to point out: somebody mentioned nuclear power. One thing that isn't said about nuclear power is that nobody will insure it. There is no private insurer that will indemnify nuclear power. If there's a nuclear power accident, it is paid for by the taxpayers. So I am wondering, in light of perhaps a reduction in fire suppressant systems, at a facility that deals with plutonium, who indemnifies any possible accident at the Lab if there's one of these catastrophic fires?

[BRUCE MACALLISTER, FACILITATOR]
Comments about the fire—

[STEVE FONG]
—address your comment about, uh, I guess, nuclear safety. So, um, in terms of nuclear safety, before we go operational we're gonna have to make sure, just like intercity license facilities, we do a similar process. We go through a methodology and making sure that all of the hazards, all of the probabilities, the frequencies, the initiators, all of that stuff, get rolled up. And, believe me, that's, that's a detailed process that,— Ivan Trujillo, you want to raise your hand? In our office, he's the guy that wrestles all of that. And he's a guy from Española, so a product of Española. Uh, he ensures that that process is followed, making sure that all hazards, possible hazards, possibility of accidents, are taken a look at. And, in the end, what is generated is a documented safety analysis. And that's sorta akin to a license that you see in NRC [Nuclear Regulatory Commission]. And at that point, yes, I mean, that is a document that has millions of hours of review and analysis put into it. And that is not taken lightly. Ivan and his team challenges Rick [Holmes] and his, his engineers that are trying to integrate all that safety. And they try to come up with the best control set and safety control set possible for the Laboratory. In the end, the Department of Energy accepts that document, the site manager, Roger's [Snyder's] boss, is the risk assessment official for the site. Kevin Smith, is the person that signs that document and accepts that document. Now that document goes through a number of progressions.

[STEVE FONG]
We're only in the preliminary stage. It becomes a document safety analysis later on. So it's gotta go through a number of series of gates all along the way as we mature, and it also goes, and it is reviewed as we are in construction. To make sure to say that when we said that, the safety says that "hey you need a safety class fire protection system, and you need a sprinkler in this room and you need four of 'em" or whatever, believe me, we are gonna check to see that that is followed, that the pedigree is there, and it's installed, just like, and it meets the functional requirements, the performance requirements, that are

outlined in the PDSA [Plan Do Study Act worksheet]. So all that is done. There's a large document that is the PDSA that goes through all that. And that is what the designers use. And that's what we try to integrate, making sure that safety and design are seamless. But it rolls up into a document, and that document will be signed at one point before we go operational, and demonstrated that we have met and achieved everything that we said we were gonna go do.

[STEVE FONG]
So, there was a discussion of whether or not, can we reduce some of the fire protection systems in the vault? It's a study. It's all it is at this time. Right now, no, we have a safety class fire protection system in that facility and it is robust. That is one of our primary safety features in our facility. And it is, uh, uh, under a lot of study. And in fact a lot of folks are interested in how we actually do that. And so, with that, will we change or remove systems? Only if we, through analysis, determine that it is warranted. But we are not there yet. We have to go through that analysis. And that's basically,— Well, I think I answered most of your questions.

[UNIDENTIFIED PERSON]
[Inaudible question off mike]

[MARILYN HOFF]
There's a law called the Price-Anderson [Act], and it provides for indemnification in the case of nuclear accident. And because it, private insurers think nuclear power, however much it might be resurging, is too dangerous to insure. Um, I'm just wondering who insures possible accidents at the Lab.

[Inaudible voices away from mike or with audio adjusted at too low a volume.]

[GREG MELLO]
[Inaudible words off mike] —it's indemnified by the taxpayers, [inaudible words] contract laws, for any accidents involving nuclear materials above a certain threshold.

[BRUCE MACALLISTER, FACILITATOR]
Questions?

[PETER NIELS]
Thank you. My name is Peter Niels. You referred several times to the SEIS. And, um, it sounded like what you were saying was there are some alternatives that are being considered to this building. Um, I'm curious, how much money has been spent on those studies. And if, any one of you gentlemen here this evening can tell me, and I have no reason to question your integrity, ahm, can tell me with a straight face that this 400 million plus that's been spent in design is not prejudicing, prejudicing the outcome of the SEIS. Any one of you?

[STEVE FONG]
The question is, the question is— I think I'm being— This is Steve again. The question is, how much has been expended on the analysis that's going in to the other alternatives within the SEIS. Like the upgrade, yeah, okay for the first part, but anyway, the upgrade of the CMR, the old CMR facility.

[Unintelligible words from Peter Niels off mike.]

[STEVE FONG]
Okay. And so let's look at that one first. So that one was, a lot of that analysis that was generated, uh, was in the past, there were a number of attempts to upgrade that facility. So we are going back to a lot of the studies that were done in the past decade. So there's a lot past dollars that have been expended in terms of

analysis of that structure. And there's also a lot of analysis that's coming through institutionally. Again, such as the probabilistic seismic hazard analysis for the site. Now that's an institutional dollar in which we understand the behavior under this seismic event. Those sorts of things are different pots of dollars that all feed in, and we are gathering information from those. So, can I quantify how much the analysis is going into those? Well it's considerable, but I can't put a finger on it, because it, again, we are drawing from a number of other past initiatives that have gone on, and stops, things that have been realized already and costed, not, ya' know, and there are other institutional things and which are program based and a lot of dollars expended. So, no, I can't give a number specifically in how much are we pulling on that says, ya' know, what's the dollar amount for that upgrade? I don't have that answer.

[UNIDENTIFIED PERSON]
[Inaudible question or comment off mike]

[STEVE FONG]
I simply don't have that answer.

[UNIDENTIFIED PERSON]
[Inaudible question or comment off mike]

[PETER NIELS]
[Inaudible words off mike] —What I would like to know is, um, are you prepared to do the legwork necessary to give me an answer to that question? And secondly, you haven't addressed the question of, this money, prejudicing the outcome of the SEIS.

[STEVE FONG]
So, I'm not the one that's doing the analysis. We hire that. Nor is the Laboratory. We have a, a group of individuals, technical individuals, that are studying, compiling all that information. And that will be going to the, the site official for review. And, and even beyond this site. It's going to go up to, at a Washington level. Roger [Snyder] is actually wanting to step in and actually say something. Okay.

[ROGER SNYDER]
I don't know how, — Again, Roger Snyder. —how satisfying the answer will be, but I'll give you a bit of a history. Gotta keep in mind that in 2003 we did the first Environmental Impact Statement, which was the formation to go forward with the Nuclear Facility and the RLUOB. We issued a ROD [Record of Decision] in 2004 for that activity. And we've been evaluating, designing, and investigating since that point. Only, only through the expenditure of the design and investigation are we at this point, where we are now doing a Supplemental EIS saying things have changed since that analysis. Here's what we now understand, and now let's re-look those paths.

[ROGER SNYDER]
And so, that's, if you ask, has the design prejudiced us, from the standpoint, it has positioned us to have this discussion. Had we not advanced design since 2004, we would be still be in the uncertainties that we had then. We wouldn't know about the seismic condition of that site. We wouldn't have the questions and discussions. We wouldn't have been able to have the debates on, "What is the cost or what are the alternatives to those costs?" And so, the design has progressed to give us these sets of questions and the alternatives now being studied in the Supplemental EIS are part of the design effort. We are asking the same design team, "What other options do you have?" "What could you do differently?" And so, the, the efforts are now intertwined.

[ROGER SNYDER]
As we got comments from the public scoping session, on the Supplemental EIS, those comments went back and became questions for the design team. As well as, as well as the outside hired experts to conduct the Environmental Impact Statement. So, it becomes too intertwined to give a discrete answer on any one piece. Because there is history, as Steve [Fong] pointed out with studies that we did in the 90s, where we actually had a project to try to upgrade CMR. And then we had the investigations that changed that path, with the, uh, the identification of a fault and how much actually that project would have cost to try to— and whether it was even feasible at that time. And then we had the 2003, the 2004 ROD. And now we're with the design we've expended. And, again, it's a matter of personal taste and satisfaction. But, we wouldn't be here if we hadn't taken those steps.

[PETER NIELS]
[Partly inaudible, off mike.]
Thank you. And how about when we can expect the answers to these questions that we sought tonight. Do they ever come out? Or do they just get swallowed up?

[STEVE FONG]
So, sometimes, they get swallowed up. But I think we answered a handful of them. There are some that remain in legacy. Uh, you know. Uh, believe it or not, people call me, and I actually respond to them in terms of answers. So, and Greg, I think you've, you've been one of those that, we spend hours on the phone. So, uh, we're not trying— this is only so much time that we've got, and, uh, it's kinda hard standing up here under lights to, ya' know, so, there are more opportunities. And you know what, I think there are different formats that are better than a spokesperson out to the field. We changed the format so that we could actually do that. When we have these poster sessions that go around, you could get one-on-one with people and then you could go around and spend a lot of quality time in that sort of format. This one is, who has the microphone? And I do right now. And, and, I'm seeing the facilitator saying, "It's time to wrap up, and so—

[BRUCE MACALLISTER, FACILITATOR]
We have one other question on the floor and we will wrap with that. We are over time, so, let's make this one very quick, and that will be the last question for the night.

[JONI ARENDS]
So, Steve, —thank you Peter [Niels] for that question because that was my question. We would like a formal, written response to our February 25th 2011 memo with regard to the questions from the Interested Parties. And my second question is just a "yes" or "no" or a date. So, in your slide number two, it says that the draft SWEIS, um, expected in the coming months, according to the NEPA schedule it says that it's supposed to come out this month. So, what's your current schedule on that one?

[STEVE FONG]
This month is March now. So I think we're looking at April, is about the timeframe I think that's gonna be out for, available for comment.

[JONI ARENDS]
And—

[STEVE FONG]
It's not gonna look at— John [Tegtmeier] is that about, about right?

[JOHN TEGTMEIER]
[Inaudible response not on mike]

[BRUCE MACALLISTER, FACILITATOR]
Let's, let's get you a mike.

[JOHN TEGTMEIER, LASO-NSM]
My name's John Tegtmeier. I'm the document manager for the Supplemental EIS. And, uh, so, Joni [Arends], right now we are currently looking at, uh, we've got [microphone feedback noises] [several voices off mike] Alrighty. Can you hear me now? [several voices off mike] Okay.

[JOHN TEGTMEIER]
So, we currently have a lot of folks looking at the draft. It'll go through the headquarters folks, ultimately get approved by the administrator for release. So, we've got that document out today. So, by going through that process, getting the comments, getting it cleaned up, walking it through the headquarters folks that have to bless that going out, and then get the notice of availability out—we're looking towards the middle to end of April—

[JONI AREND, CONCERNED CITIZENS FOR NUCLEAR SAFETY]
Okay. So—

[JOHN TEGTMEIER]
—for the start of the, for the issuance of the draft.

[JONI AREND]
Ahm, as a matter of respect, it's important that it doesn't come out during the holy week. And that it come out, probably the first week in May. Because we have the greater than Class C hearings April 26th, 27th, and 28th in New Mexico.

[UNIDENTIFIED PERSON]
Okay.

[JONI AREND]
So May would be better. We don't want this overlapping.

[UNIDENTIFIED PERSON]
Yeah, we—

[JONI AREND]
And we don't know, the BSL 3 [bio safety level 3] is coming out. It's too much for people in Northern New Mexico to take this on. Um, all three at the same time.

[BRUCE MACALLISTER, FACILITATOR]
I think at this point, since we are talking about logistics and follow-up, that's something that can happen off-line. We are slightly overtime. Do want to wrap it up as promised. So, thank you John. So thank you very much. We'll endeavor to continue to have these meetings and answer your questions as comprehensively as we can.

[UNIDENTIFIED PERSON]
Who do we contact for the ... [Audiotaping stopped]

[The meeting was adjourned at 8:36 p.m.]

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 at the Fuller Lodge, Los Alamos, New Mexico, on March 10, 2011.

/s/ Morrison Bennett

Transcription completed April 18, 2011.

III. Presentation Slides – CMRR Project


UNCLASSIFIED
Chemistry and Metallurgy Research Replacement (CMRR) Project
Welcome
CMRR Project Update
Los Alamos, New Mexico
March 10, 2011
Bruce MacAllister, Meeting Facilitator
Los Alamos
NNSA
UNCLASSIFIED
LA-UR 11-01450
CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

Agenda

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

Background and Purpose of Meeting

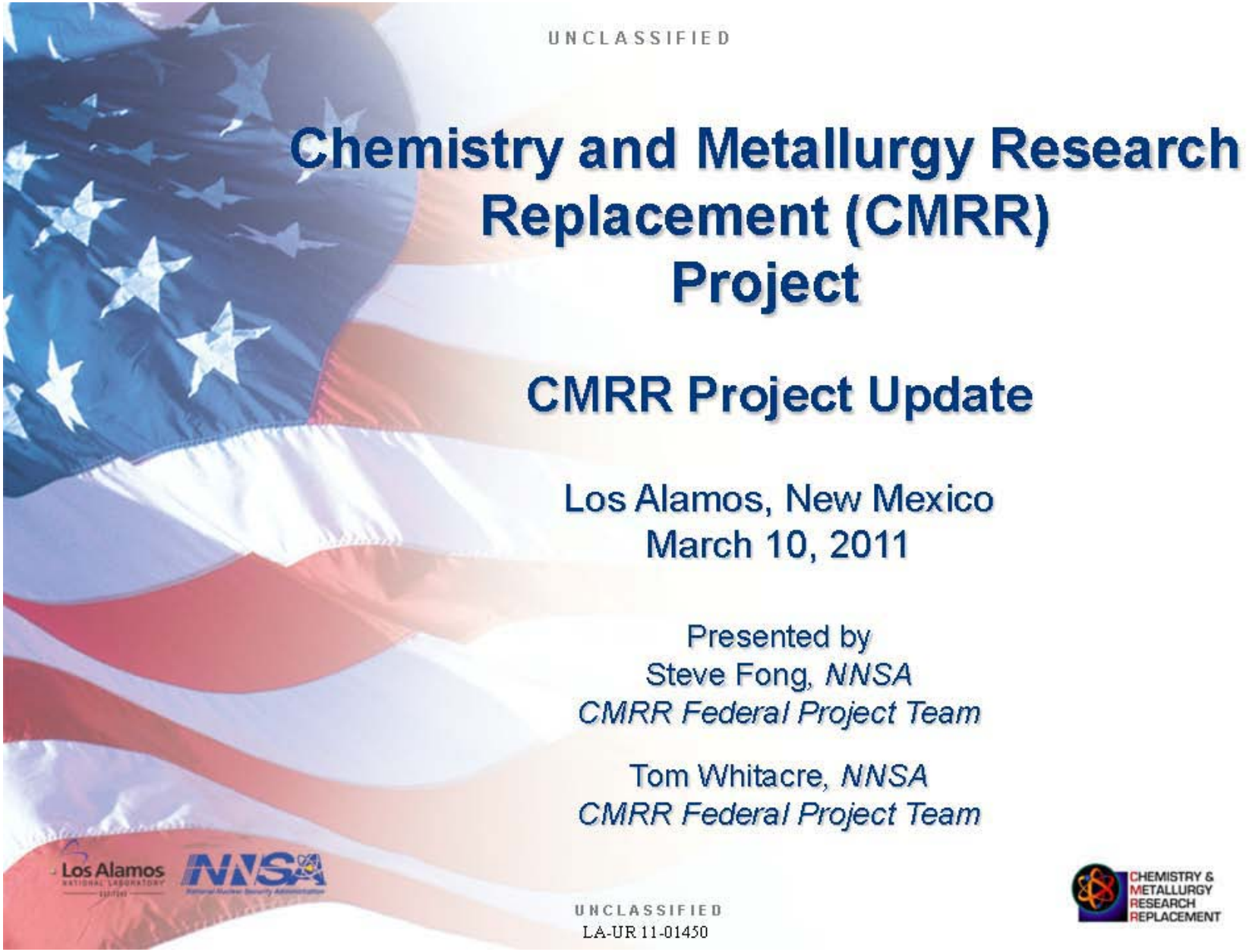
- Settlement allowed for air permitting to be tailored to match phased project-development and for public involvement
- Settlement required that public meetings be "single subject" meetings that will not be combined with other public meetings, including but not limited to the Sitewide Environmental Impact Statement for LANL (SWEIS)
- 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

Los Alamos NATIONAL LABORATORY EST. 1943 NNSA

CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

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
- Say your name each time you speak


UNCLASSIFIED
Chemistry and Metallurgy Research Replacement (CMRR) Project
CMRR Project Update
Los Alamos, New Mexico
March 10, 2011
Presented by
Steve Fong, NNSA
CMRR Federal Project Team
Tom Whitacre, NNSA
CMRR Federal Project Team
Los Alamos
NATIONAL LABORATORY
NNSA
CHEMISTRY & METALLURGY RESEARCH REPLACEMENT
UNCLASSIFIED
LA-UR 11-01450

CMRR-NF Update

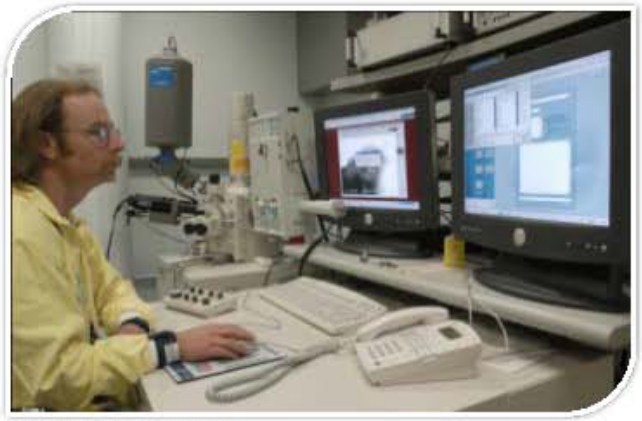
- Supplemental Environmental Impact Statement (SEIS) underway
  - Notice of Intent Published October 1, 2010 in the Federal Register
  - Two public scoping meetings held
  - Draft SEIS expected in the coming months
  - Public comment period to follow
  - Public meetings to be held

What is CMRR? *

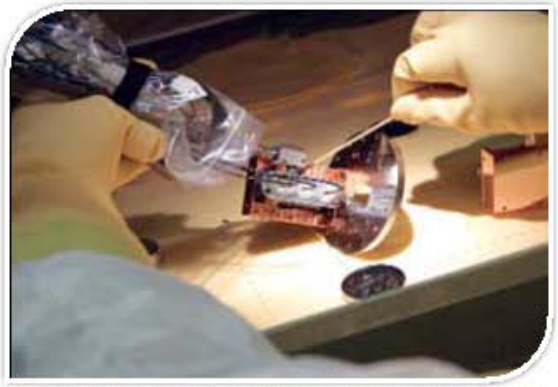
CMRR is essentially a chemistry laboratory where scientists will analyze the origin and purity of materials and understand the chemical and mechanical properties.

- Two-building project
  - Radiological Laboratory and Utility Office Building (RLUOB)
  - Nuclear Facility (NF)
- Office and training space
- Nuclear materials storage (PF-41 Demolished in 2009)
- Laboratory capabilities for:
  - Research
  - Nuclear Nonproliferation
  - Stockpile management (Nuclear Deterrent)
  - Space Missions
  - Waste Management

* Subject to outcome of the Supplemental EIS



Electron Microscopy



Pu Sample Loading for Z-machine Experiments

Los Alamos NATIONAL LABORATORY EST. 1943 NNSA

CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

CMRR Replaces a Nearly 60-Year Old Facility

- The original CMR building dates back to the early 1950's
- It is becoming ever more expensive and inefficient to maintain and it demands more resources to operate safely
- No other facility or site in the U.S. can fulfill its mission
- External safety oversight board has reported to Congress the critical need to replace

CMR construction in 1948





CMR Today

Los Alamos NATIONAL LABORATORY EST. 1943 NNSA

CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

CMRR is NOT a Pit Manufacturing Facility



Any pit manufacturing will continue to occur in the existing Plutonium Facility (PF-4) – adjacent to CMRR. Neither RLUOB nor the Nuclear Facility are designed to perform pit manufacturing.

Los Alamos NATIONAL LABORATORY EST. 1943 NNSA

CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

Dramatic Improvements to Safety and Security



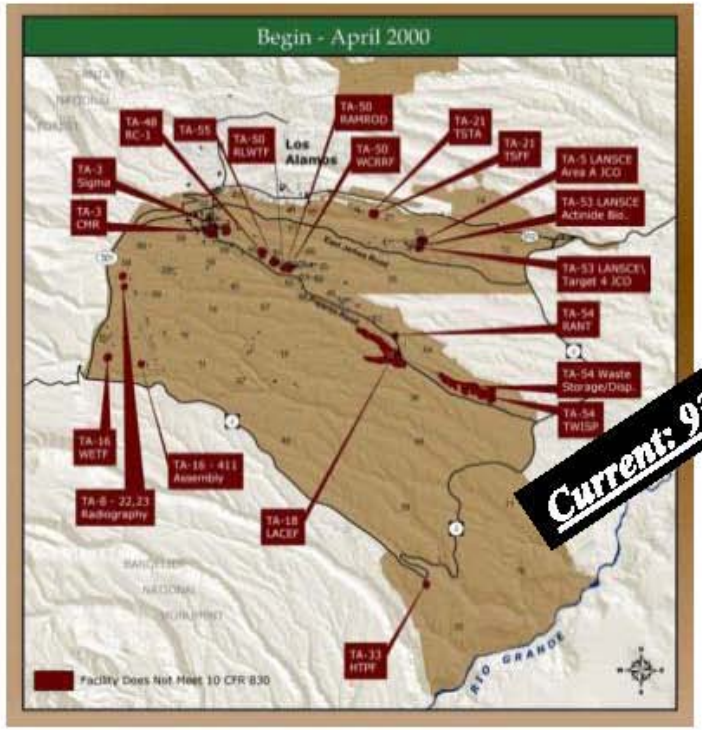
- Nuclear materials better protected
- Nuclear materials consolidated
- Meets 21st century health, safety, and environmental standards
- State-of-the-art worker safety
- Removes 570,000 square feet of antiquated and expensive facilities
- Design of Nuclear Facility certified by independent safety board
- Part of Broader consolidation of Lab nuclear facilities from 16 to 4 and related reduction in nuclear footprint at the Lab (see next slide)

Los Alamos NATIONAL LABORATORY EST. 1943 NNSA

CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

LA-UR 11-03155

Los Alamos Nuclear Facility Consolidation





Current: 930,000 sq. ft.

Before: 1,780,000 square feet

After: 590,000 square feet following CMR D&D (post 2018)

Los Alamos NATIONAL LABORATORY EST. 1943 NNSA

CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

UNCLASSIFIED
LA-UR 11-01450

11

Radiological Laboratory Utility Office Building (RLUOB) and RLUOB Equipment Installation (REI)

Radiological Laboratory Utility Office Building (RLUOB)



Building Shell

- Facility Performance Baseline ($164M TPC):
- 19,500 NSF radiological lab space (<8.4g Pu- 239 equivalent)
- Centralized utilities/services for all CMRR facility elements
- Office space for 350 workers
- Consolidated training facility
- Facility incident command; emergency response

Status: Construction Complete

Equipment

RLUOB Equipment and Installation (REI)

Procure and install equipment RLUOB

Status: Execution Start Approved – July 2009
TPC = $199.4M
Completion – 2013

Status

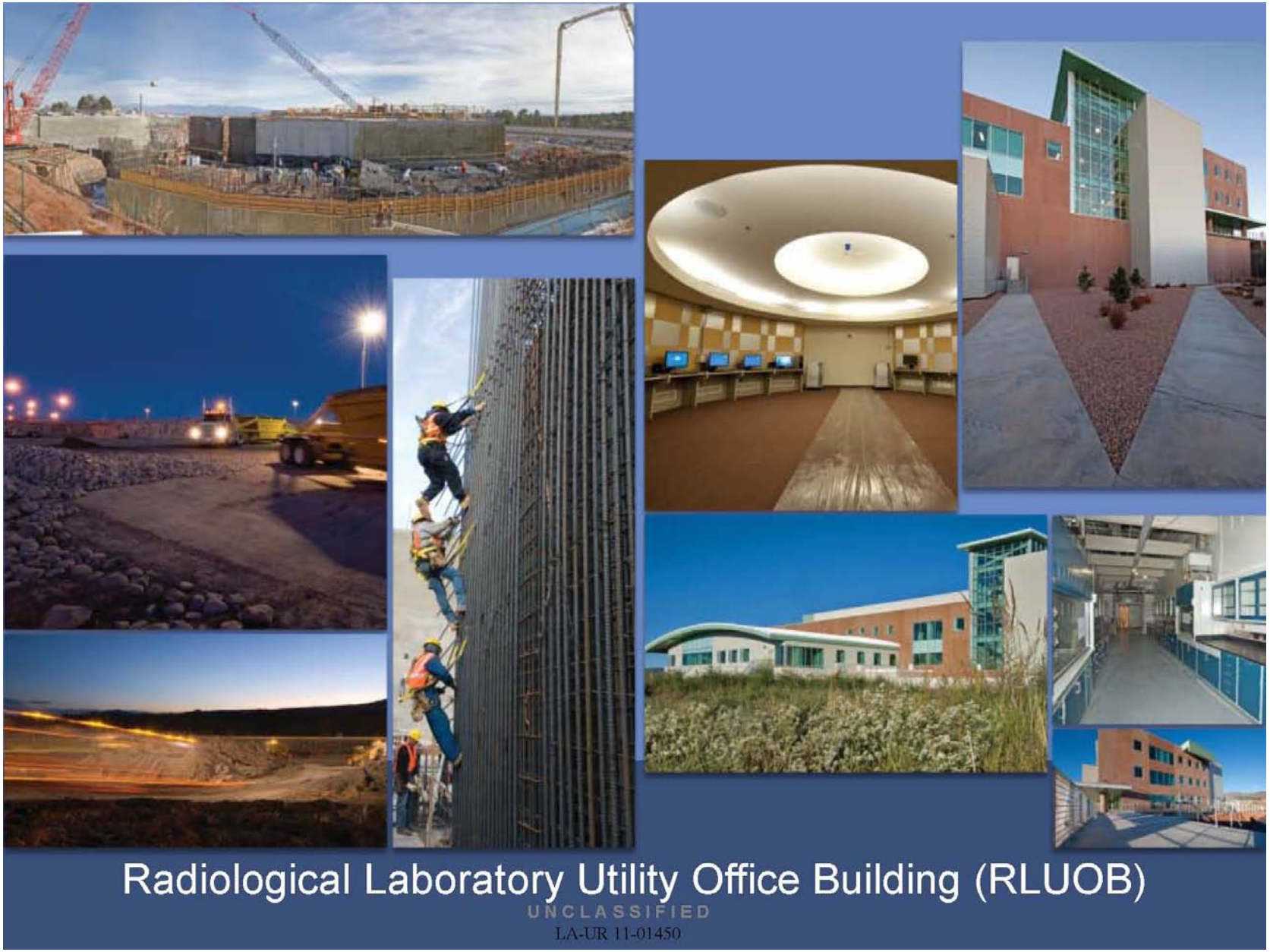
- **Building structure and major systems accepted**
  - Construction complete
  - Over 2 million craft hours with no lost-time accidents
  - Nuclear Quality Assurance (NQA-1)
  - Sustainable design features

RLUOB Equipment Installation

- Construction safety – no lost-time accidents
- Milestones:
  - Office turnover to operations – October 2011
  - Lab space turnover to operations -1 year ahead of Schedule
- Under Cost

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CHEMISTRY & METALLURGY RESEARCH REPLACEMENT


Radiological Laboratory Utility Office Building (RLUOB)
UNCLASSIFIED
LA-UR 11-01450

CMRR – Second Replacement Component: Nuclear Facility (NF)

Planned construction complete in 2020 and building operations in 2022



Highlights:

- A replacement capability in design*
- A robust structure for nuclear operations
- 22,500 square feet of laboratory operations space
- Special Facility Equipment
- Special Nuclear Materials Storage Vaults
- Nuclear Quality Assurance
- Overall building size is driven by required building codes and requirements

*Supplemental Environmental Impact Statement underway with decision expected in 2011

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Safety Strategy is Protection of the Public and Workers in Normal Operations and in all Postulated Accident Scenarios

- Starts with prevention through using only the amount of material required to execute the work
- To protect the public, we are designing a robust structure that, if constructed, would ensure the following:
  - Protection of the public, by confining the material in all accident scenarios, including the postulated 2,500-year earthquake
  - Storage of nuclear material in a long-term vault in robust safety-class containers
  - Protection of the workers/public using gloveboxes and open-front hoods
  - Protection of the workers in all accident scenarios with significant fire safety systems, and air handling systems to ensure workers can exit the building safely

Environmental & Energy Considerations

Sustainable architecture attempts to reduce the collective environmental impacts during the selection of building components, during the construction process, as well as during the lifecycle of the building (heating, electricity use, cooling, etc.)

Sustainability considerations were integrated early in CMRR project planning and design phases.

A strong commitment to environmental stewardship throughout procurement and construction will help CMRR to meet sustainable building standards.

LEED certification has been an important consideration in the design of both phases of CMRR.

RLUOB earned the DOE 2010 EStar Award for exemplary environmental sustainability practices.

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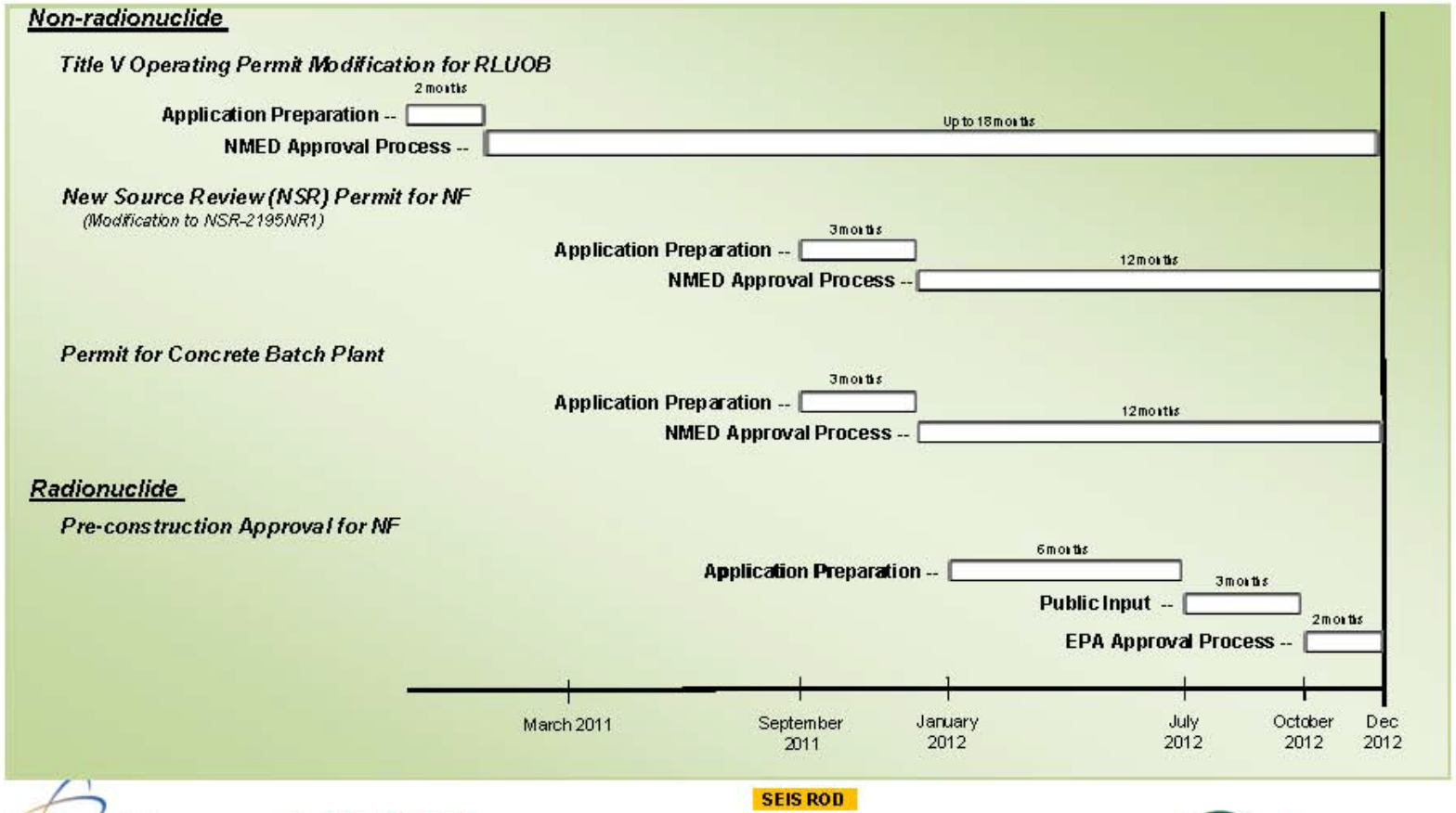
Major Boost to the Local Economy

The proposed CMRR Nuclear Facility would be a large construction/capital improvement effort, which would result in:



- The purchase of billions of dollars of goods and services (currently half of all Lab purchases are in NM); and
- The creation of up to a thousand new jobs, mostly in the construction crafts.

Tentative Air Quality Permit Schedule



SEIS ROD

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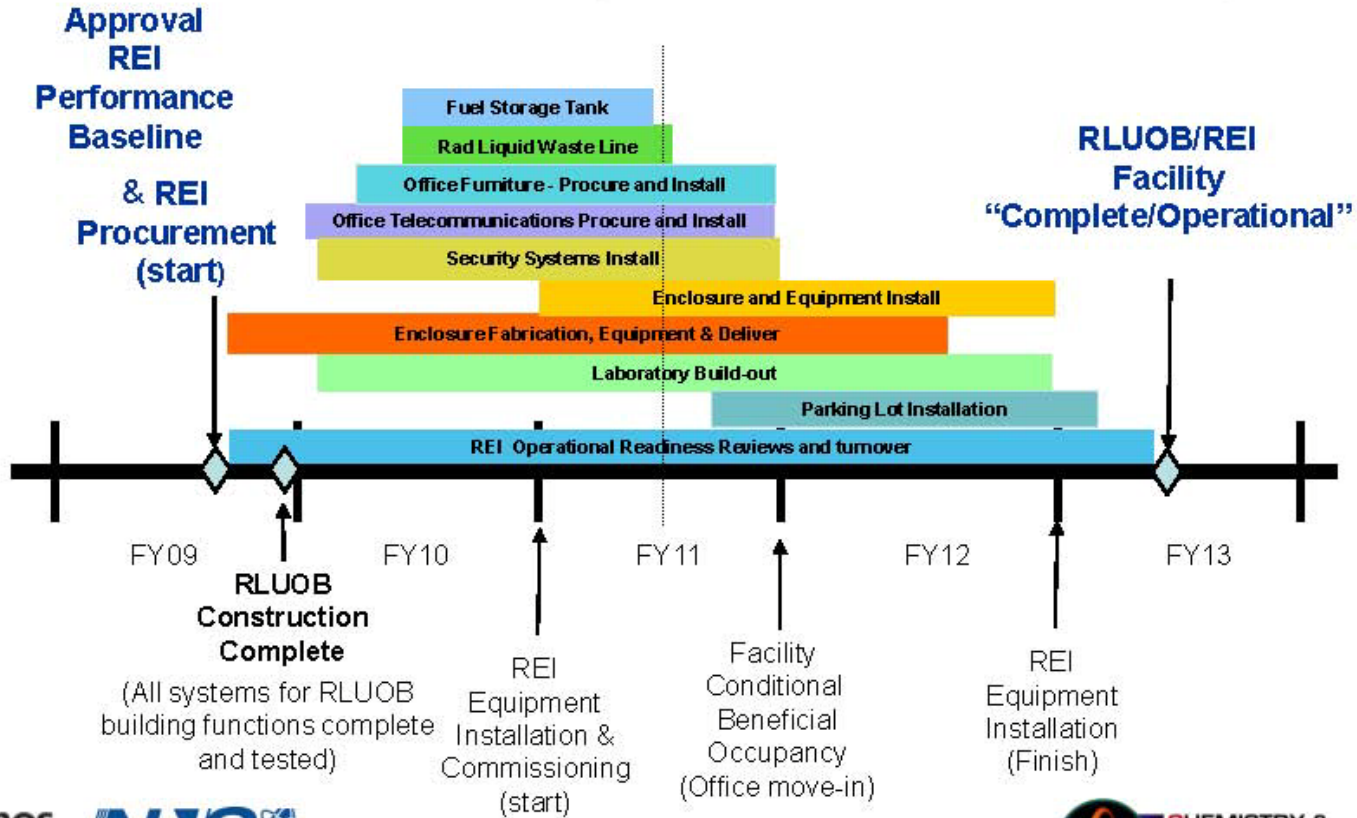
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18

RLUOB Equipment Installation (REI)

RLUOB Equipment Installation Plan

Total Project Cost = $199.4M



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20





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22





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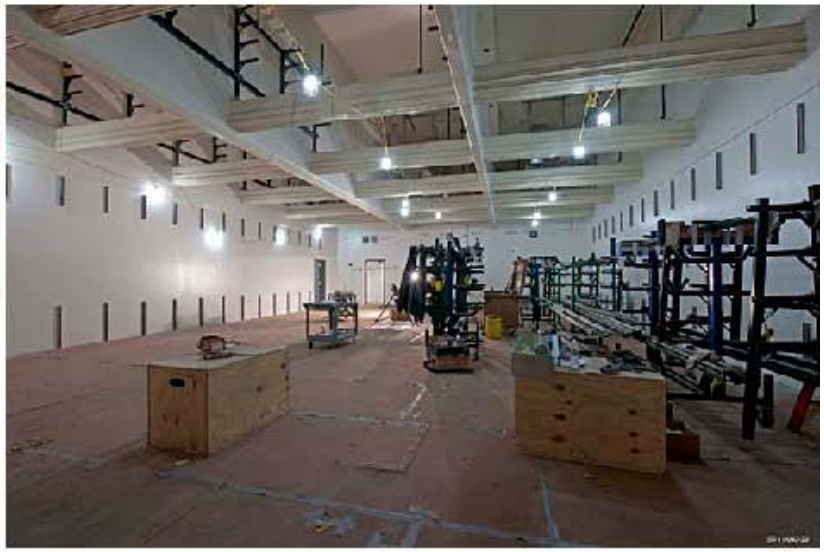




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Chemistry and Metallurgy Research Replacement (CMRR) Project

Thank you for attending.

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CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

IV. Presentation Slides – Interested Parties

Interested Parties CMRR Presentation March 10, 2011



Welcome to our 11th Meeting!

This is the 11th semi-annual public meeting required as part of a 2005 settlement between the Lab and an network of community groups:

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

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Welcome to our 11th Meeting!

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

1. Increased Cost
2. Decreased Size
3. TBD – What Are the Plans for Spending the Money?
4. DNFSB - Potential Changes Concerns
   1. Annual Report to Congress
5. CMR Deferred Maintenance or Risk Mitigation?
6. Final Baseline Estimate for the NF is due in 2013
7. Concrete Monument
8. Seismic
9. Lack of Need
10. **C**leanup **M**ore **R**adioactive **R**ubbish

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CMRR NF Cost

The updated cost range estimate, from April 2010, based on 45 percent design is between $3,710,000,000 and $5,860,000,000.

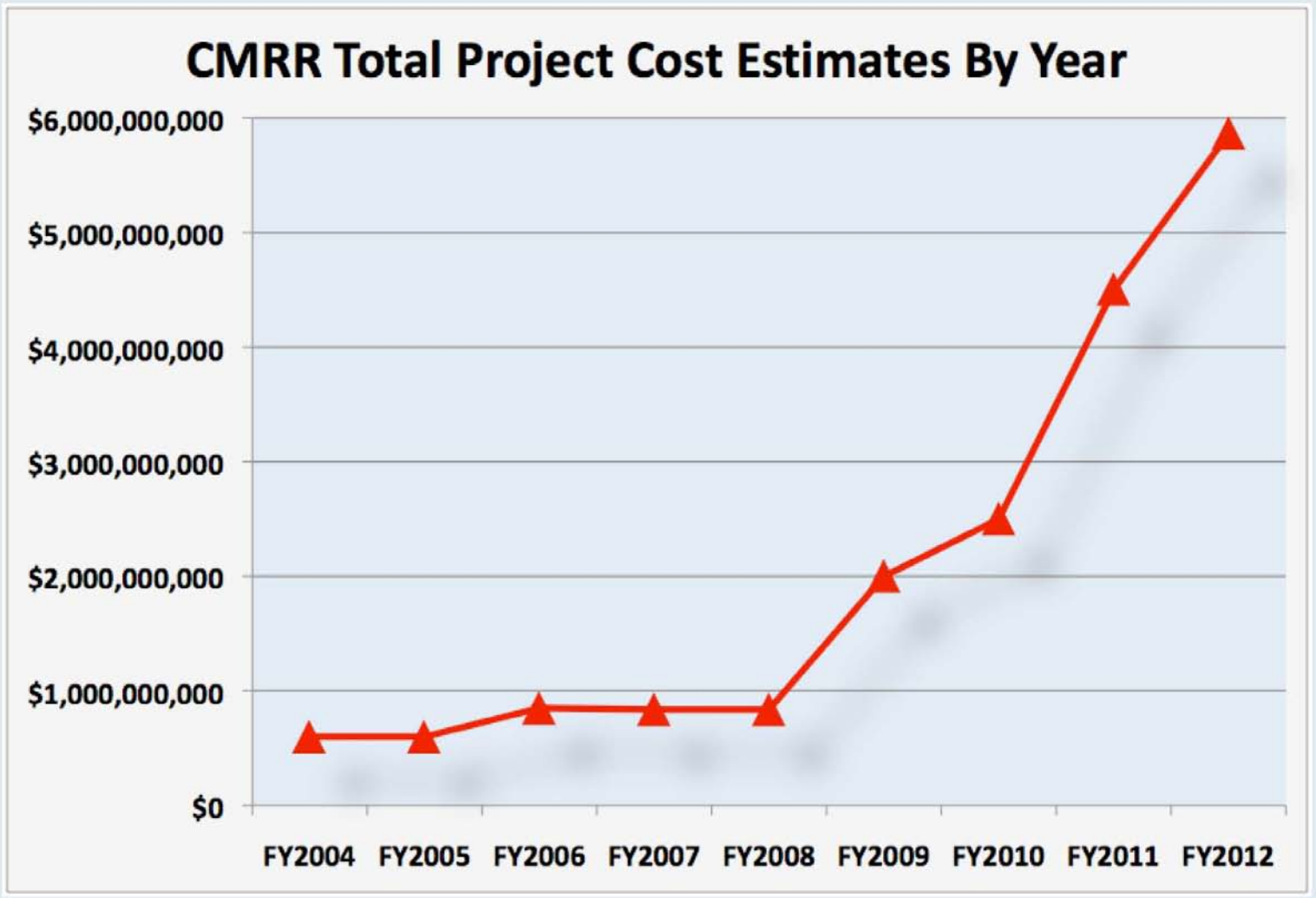
$10,000+ square/foot

Is there a maximum cost for the Nuclear Facility?

How much of the cost is because of the seismic requirements?

Taxpayers are paying a high price to have pit production continue at Los Alamos.

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CMRR Total Project Cost Estimates By Year
$6,000,000,000
$5,000,000,000
$4,000,000,000
$3,000,000,000
$2,000,000,000
$1,000,000,000
$0
FY2004
FY2005
FY2006
FY2007
FY2008
FY2009
FY2010
FY2011
FY2012

CMRR Size

Why is the CMRR-NF 10,770 square feet smaller this year?

395,230 gross square feet in FY2012 request

Area	Gross Square Feet (gsf)
TA-55-400 (Radiological Laboratory & Office Building) TA-55-440 (Central Utility Building)	187,127 20,998
TA-55-500 (Security Category I/Hazard Category II Nuclear Facility)	395,230 (beneficial occupancy post FY 2018)
TA-3, Building 29 (CMR)	(571,458)
LANL "banked excess" necessary to offset one-for-one requirement	31,897

406,000 gross square feet in 2011 request

Area	Gross Square Feet (gsf)
TA-55-400 (Radiological Laboratory & Office Building) TA-55-440 (Central Utility Building)	187,127 20,998
TA-55-500 (Security Category I/Hazard Category II Nuclear Facility)	406,000 (beneficial occupancy post FY 2018)
TA-3, Building 29 (CMR)	(571,458)
LANL "banked excess" necessary to offset one-for-one requirement	42,667

How will the CMRR budget be allocated for FY2012?

- **$300 million** request for the CMRR Project.
- **$29.9 million** request for equipment in the recently completed first building, the Radiological Laboratory/Utility/Office Building (RLUOB).
- **But exactly how will the remaining $270 million be spent?** In the budget request, it's literally "TBD" (To Be Determined).

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How will the CMRR budget be allocated for FY2012?

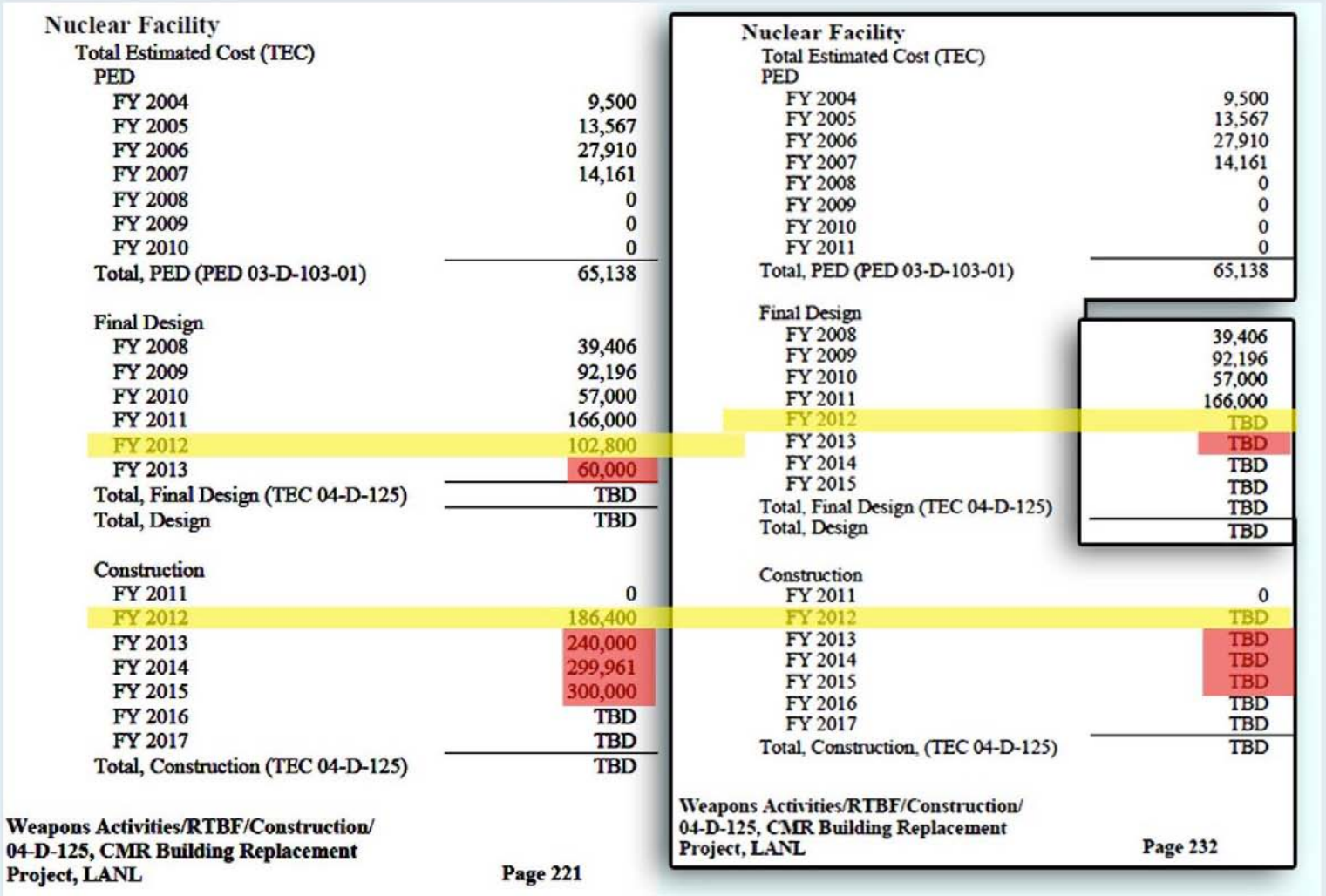
- "The increased funding level in the FY 2012-FY 2016 is needed to support the required schedule of construction completion in FY 2020 and a ramp-up to full operations by FY 2023 for CMRR-NF.
- "The funding request for FY 2012 supports achieving 90 percent design maturity in FY2012, which will allow the Department to set performance baseline in FY 2013."

Source: FY2012 DOE Congressional Budget Request (CBR), Vol. 1 Pp. 53 & 146

How will the CMRR budget be allocated for FY2012?

- Is ALL the remaining money for design?
- How much has been spent on design to date?
  - Over $400 million spent on design through FY2011
  - Plus $270 million for FY2012?
  - Will design end up costing $1B?
- 6 years to get to 45%, two more years to get to 90%?
  - When will 100% design be achieved?

FY2011 vs. FY2012



Nuclear Facility

Total Estimated Cost (TEC)	
PED	
FY 2004	9,500
FY 2005	13,567
FY 2006	27,910
FY 2007	14,161
FY 2008	0
FY 2009	0
FY 2010	0
Total, PED (PED 03-D-103-01)	65,138
Final Design	
FY 2008	39,406
FY 2009	92,196
FY 2010	57,000
FY 2011	166,000
FY 2012	102,800
FY 2013	60,000
Total, Final Design (TEC 04-D-125)	TBD
Total, Design	TBD
Construction	
FY 2011	0
FY 2012	186,400
FY 2013	240,000
FY 2014	299,961
FY 2015	300,000
FY 2016	TBD
FY 2017	TBD
Total, Construction (TEC 04-D-125)	TBD

Weapons Activities/RTBF/Construction/ 04-D-125, CMR Building Replacement Project, LANL Page 221

Nuclear Facility

Total Estimated Cost (TEC)	
PED	
FY 2004	9,500
FY 2005	13,567
FY 2006	27,910
FY 2007	14,161
FY 2008	0
FY 2009	0
FY 2010	0
FY 2011	0
Total, PED (PED 03-D-103-01)	65,138
Final Design	
FY 2008	39,406
FY 2009	92,196
FY 2010	57,000
FY 2011	166,000
FY 2012	TBD
FY 2013	TBD
FY 2014	TBD
FY 2015	TBD
Total, Final Design (TEC 04-D-125)	TBD
Total, Design	TBD
Construction	
FY 2011	0
FY 2012	TBD
FY 2013	TBD
FY 2014	TBD
FY 2015	TBD
FY 2016	TBD
FY 2017	TBD
Total, Construction, (TEC 04-D-125)	TBD

Weapons Activities/RTBF/Construction/ 04-D-125, CMR Building Replacement Project, LANL Page 232

Final Baseline Estimate for the NF is due in 2013

What is planned before then?

Explain how congressional funding will be spent between now and 2013?

Final Baseline Estimate for the NF is due in FY2013

Will the first subproject start before total baseline costs for the NF are computed in 2013?

"Since the NF requires such a large effort, during FY 2011 within this Project Data Sheet, the project team is exploring options of dividing some of the work into smaller, more manageable, subprojects. These activities may include procurement/modification of site utilities, construction support infrastructure, and soil improvement work."

Source: FY2012 DOE CBR DOE Vol. 1, Pg. 233

Defense Nuclear Facilities Safety Board (DNFSB) Issues

- In a September 4, 2009, the Board worked with NNSA to identify the Board's Nuclear Facility design concerns and the actions necessary to resolve them. NNSA agreed to revise the CMRR preliminary design to address the Board's concerns, and to implement detailed designs consistent with agreed specific design requirements.
- In December 2010, NNSA contemplated several changes to the safety strategy and design for the CMRR-NF.
- The technical basis behind these potential changes has not yet been provided.

How are the issues raised by the DNFSB to be answered?

- What studies or technical basis supports the potential elimination of fire suppression in the long-term vault and day vault?
  - Long-term vault capacity will be 6 Metric Tons
- What studies or technical basis supports the potential elimination of fire suppression in noninert gloveboxes and open-front hoods?

Source: http://www.dnfsb.gov/pub_docs/correspondence/lanl/cor_20110208_la.pdf
Questions Related to Potential Changes to the Chemistry and Metallurgy Research Replacement Project Nuclear Facility Working Estimate

How are these issues raised by the DNFSB to be answered?

- What studies or technical basis supports revising the “safety-class” laboratory fire suppression system to “safety-significant”?
  - Safety-class is the higher classification.
- What studies or technical basis supports revising the safety-significant ventilation system from seismic design Performance Category 3 to Performance Category 2?”
  - Category 3 is the more rigorous seismic classification.

Source: http://www.dnfsb.gov/pub_docs/correspondence/lanl/cor_20110208_la.pdf
Questions Related to Potential Changes to the Chemistry and Metallurgy Research Replacement Project Nuclear Facility Working Estimate

How are these issues raised by the DNFSB to be answered?

- What studies or technical basis support lowering the laboratory's claimed future material-at-risk? Does this reduction represent a change in the laboratory mission requirements?

- How will potential changes to the facility elevation impact the ongoing structural and seismic analysis for the facility?"

Source:
http://www.dnfsb.gov/pub_docs/correspondence/lanl/cor_20110208_la.pdf

Questions Related to Potential Changes to the Chemistry and Metallurgy Research Replacement Project Nuclear Facility Working Estimate

The Twenty-First Annual Report to Congress of the DNFSB, February 2011

- "In the design process, DOE has frequently combined Critical Decision 2 (Approve Performance Baseline) and Critical Decision 3 (Approve Start of Construction). This procedure was followed for the CMRR Project …. **Combining these critical decisions has been done without regard to meeting the safety in design aspects** of DOE Standard 1189 such as formal independent review and acceptance of the design by DOE at the end of preliminary design (which coincides with Critical Decision 2). **The Board has objected to these shortcuts with varying degree of success.**" Id., p. 55.

Nuclear Facility Critical Decisions

Nuclear Facility

	(fiscal quarter or date)							
	CD-0	CD-1	PED Complete	CD-2	CD-3	CD-4	D&D Start	D&D Complete
FY 2011	7/16/2002	5/18/2005	12/19/2007	TBD	TBD	TBD	N/A	N/A
FY 2012	7/16/2002	5/18/2005	12/19/2007	4Q FY2012	4Q FY2012	TBD	N/A	N/A

CD-1 – Approve Alternative Selection and Cost Range
CD-2 – Approve Performance Baseline
CD-3 – Approve Start of Construction
CD-4 – Approve Start of Operations or Project Closeout
D&D Start – Start of Demolition & Decontamination (D&D) work
D&D Complete – Completion of D&D work

Government Accountability Office Report Feb 14, 2011

"NNSA has not estimated total costs for the largest projects it is conducting—the Chemistry and Metallurgy Research Replacement Facility… DOE regulations do not require a total cost estimate until the initial design phase is complete, but without reliable cost and schedule data ***NNSA does not have a sound basis to justify decisions and planned budget increases.*** "

Source: " http://www.gao.gov/products/GAO-11-188

How the old CMR can have both deferred maintenance and risk mitigation?

"In cases where replacement facilities are planned, such as the CMRR facility, the program is allowing deferred maintenance to grow...The CMR hazard reduction activities will be funded in FY 2012 to continue to reduce hazards and maintain the facility until the mission work can be transferred to the CMRR, which is scheduled to be fully operational in FY 2023. "

Source: FY2012 CBR Vol. 1, Pg. 149

Complex Geologic Setting Beneath CMRR

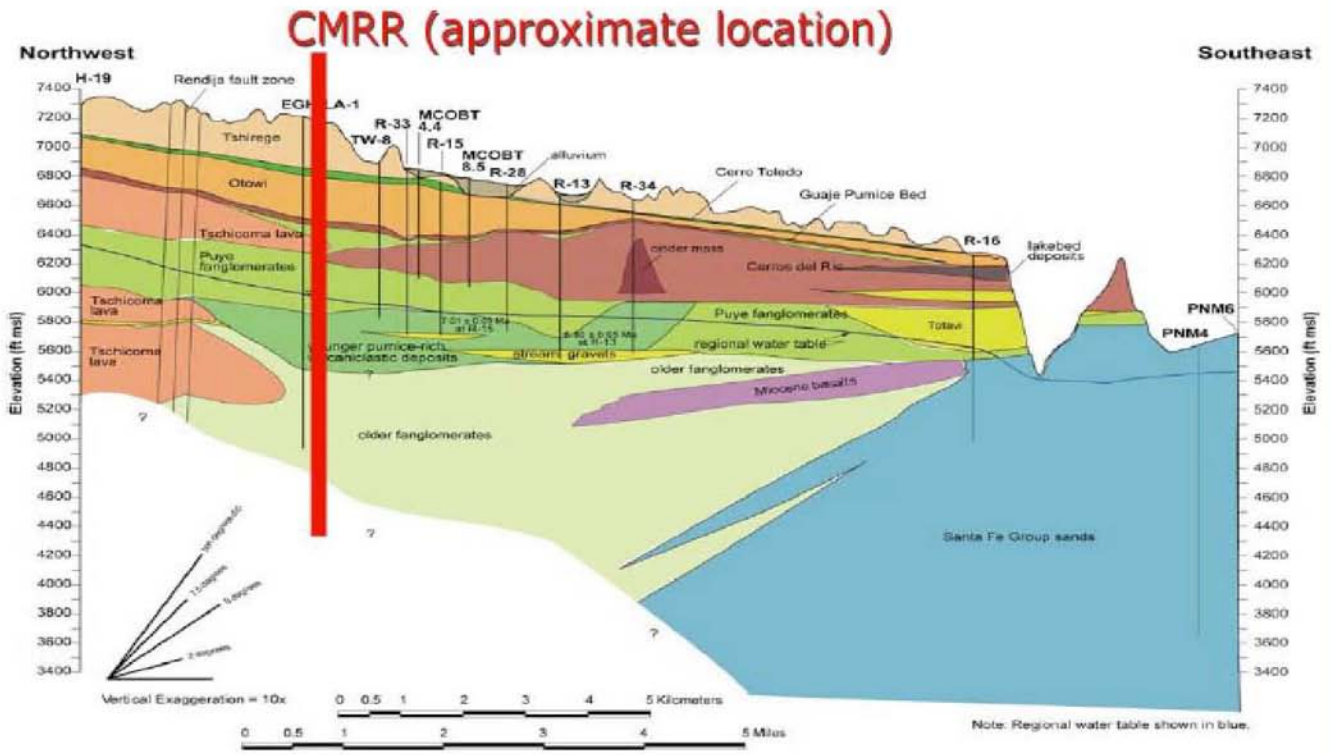
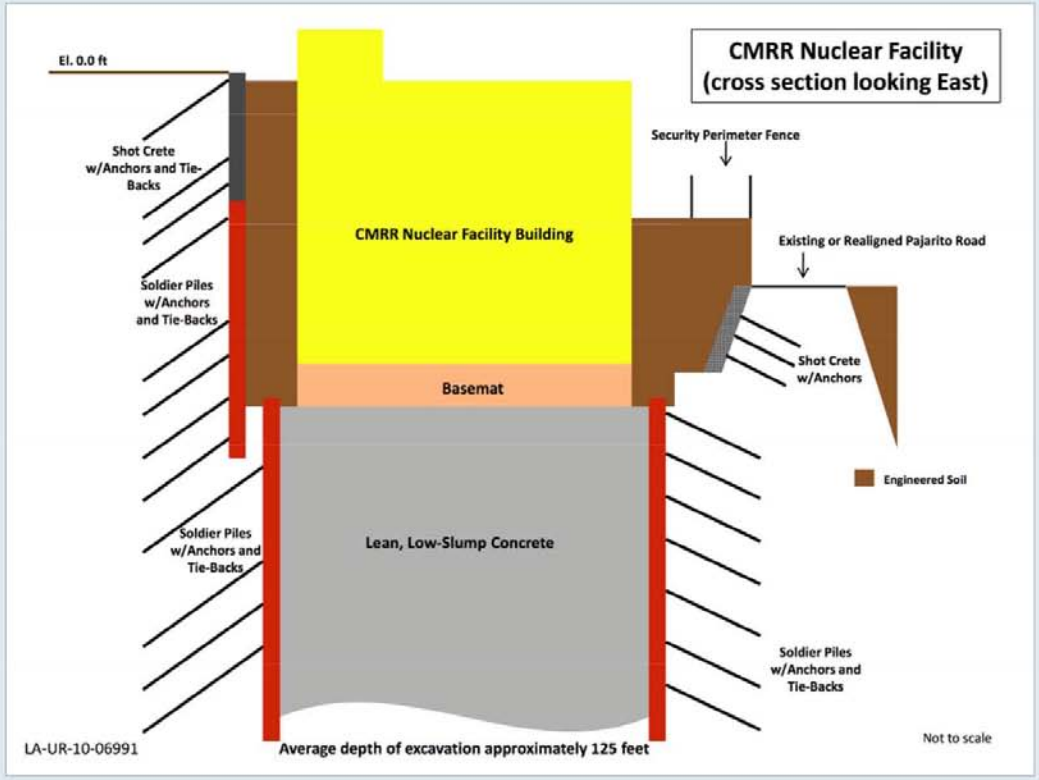


Figure 2-13. Conceptual cross-section for Mortandad Canyon. Regional water table is shown in blue.

Concrete Monument

- 225,000 cubic yards of concrete.
- Has there been an elevation change?
- DNFSB annual report page 19 refers to the Nuclear Facility as “mostly buried”?

Concrete Monument



Nuclear Facility Design Work Continues

The Need for the NF is Not Urgent

- No “Reliable Replacement Warhead” or new-design warheads
- Lifetime study found plutonium pits last at least 85 years
- Thousands of pits in storage
  - Existing pits can be re-qualified
- Existing Stockpile Certified Annually

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Nuclear Facility Design Work Continues

- **Life Extension Program (LEP) timing** – Only the W88 is scheduled for a LEP after CMRR comes online.

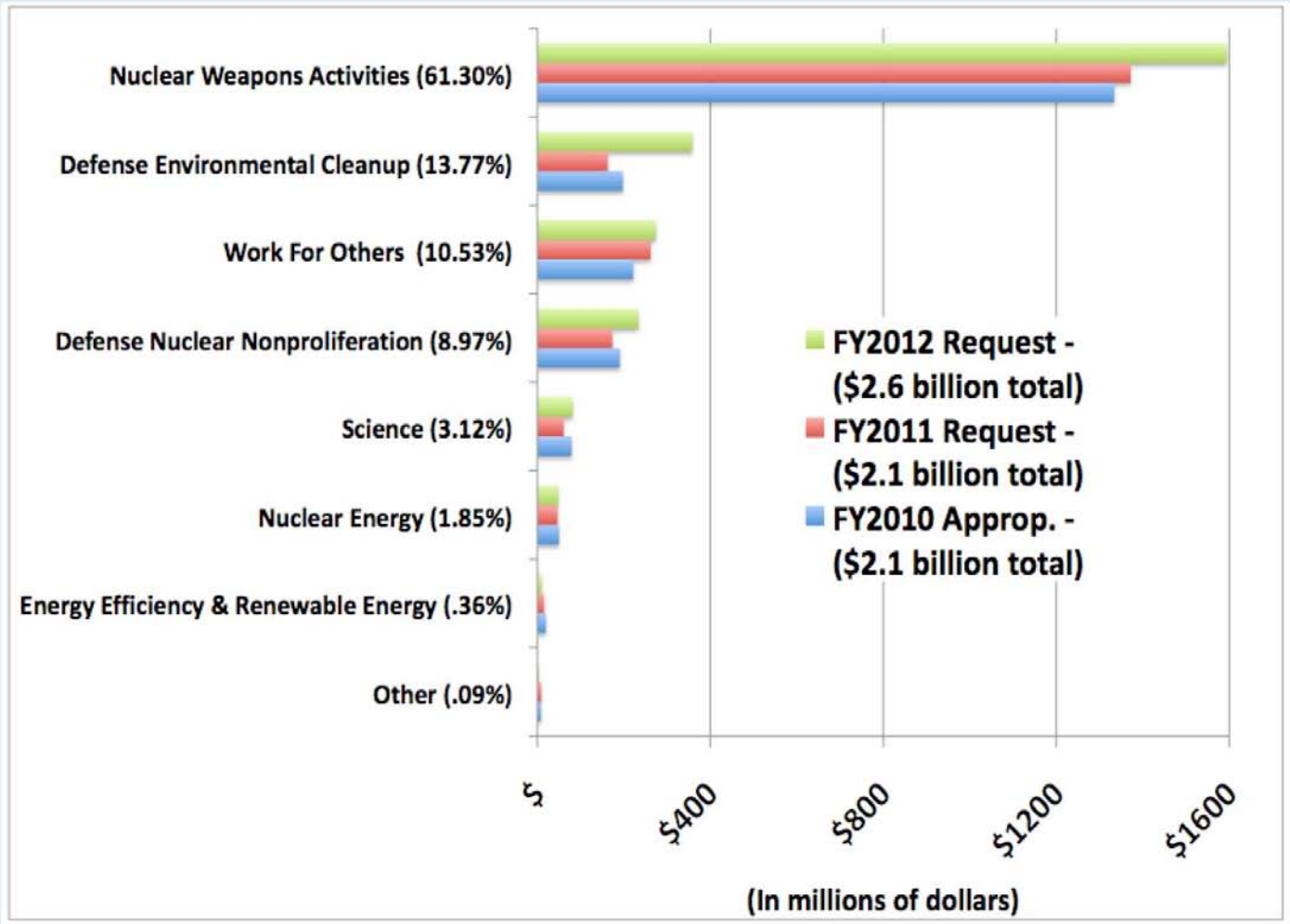
- LANL already made W88 pits, so when the CMRR comes online in 2023+, it still won't be needed.

Nuclear Facility Design Work Continues

- **Further arms reductions will most likely be in the works**
  - Reduced Stockpiles
- **Cleanup "Consent Order" will be over**, so the NF will be too late for claimed help.
  - No need for a Massive Hazard Category 2 Facility for Environmental Sampling

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Lab Budget Priorities FY2012



Concrete Monument to Ransomed Ratification
(of START arms control treaty)

- In order to eliminate nuclear weapons, must we increase production capacity?
- CMRR-NF would help provide a capacity of 80 pits per year
- We are spending money we don't have on capacity we don't need.

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CMRR - Cleanup More Radioactive Rubbish

- Because of the Consent Order, which is the Cold War legacy waste cleanup agreement between the Lab and the NM Environment Department, the Lab must complete "cleanup" by 2015.

- The Lab estimates the total remaining cost to be ~$1.5 billion for the type of "cleanup" it feels is necessary, but one option (removal of waste) for one site (Area G) is estimated **at least $32 billion.**

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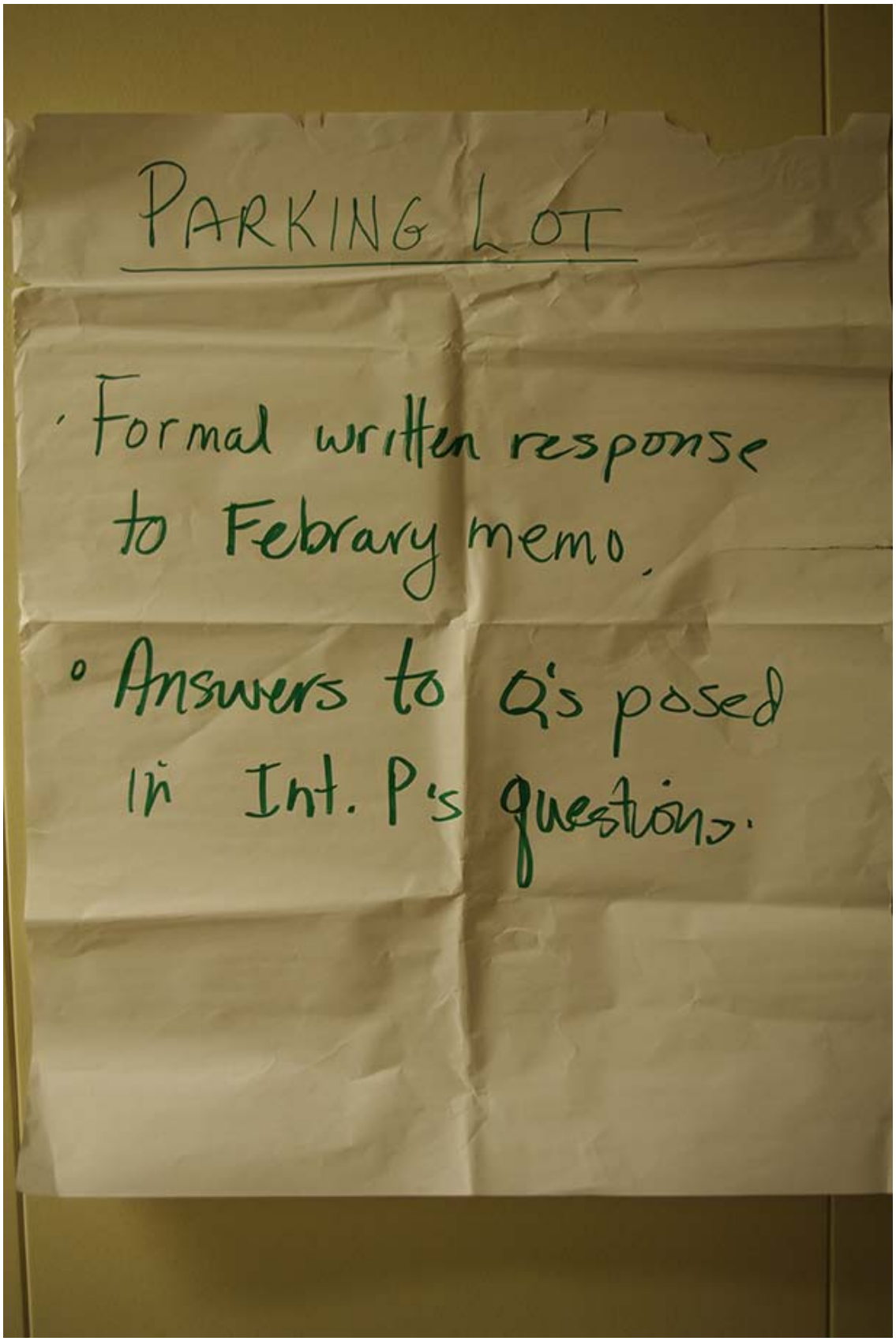
CMRR - Cleanup More Radioactive Rubbish

- Many feel that the completion of the Consent Order is at risk.
- The Lab should put construction of new projects, including CMRR, on hold until all the requirements of the Consent Order are met.

Clean Up, Don't Build Up!

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V. Meeting Flip Chart Notes


PARKING LOT
· Formal written response to Febrary memo.
· Answers to Q's posed in Int. P's questions.

VI. Sign-In Sheet

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Thursday, March 10, 2011
CMRR Public Meeting @ Fuller Lodge – SIGN IN SHEET

NAME (please print)	ADDRESS	TELEPHONE NUMBER	E-MAIL
Amy Wong	Los Alamos	667-7373	
Luciana Vigil Hallman		665-3435	luciana@lanl.gov
Neely Kelley Spraberry	Santa Fe	703-989-9858	nspraberrye@yahoo.com
Joni Arends	107 Cienega SF	986-1973	jarends@nuclearactive.org
Emily Wakefield	Santa Clara	747-4652	
Sarah Wolters	Santa Fe	699-2493	racer@nmcf.org
GIAN BACICALUPA	SANTA FE	667-1579	
MARK HAAGENSTAD	SF	455-7776	
Liz English	White Rock	310-4321	
Dorothy Winkler	Santa Fe	603-2369	

Page 1 of 5

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NAME (please print)	ADDRESS	TELEPHONE NUMBER	E-MAIL
Marian Naranjo	Rt 5 Box 474 Espanola NM 87532	747-4652	Marian@cdintstran.net
Jeff Carmichael	4740 Sandia Dr Los Alamos 87544	662-6728	~~Carmi~~ Jeff@lahome.gmail.com
Roger Snodgrass	POB 8347 SF, NM 87504	424-8366	roger.sno@gmail.com
MICHAEL SKIELLS	PO Box 1575, 87544	—	—
Denny Hjerssen	600 Barranca Los Alamos 87544	699-0114	hjerski@yahoo.com
Steve Yanicak	NMED DOE/OB LA Office	661-2644	syanicak@lanl.gov
Briana Sprague	45505 Woodleigh Way Plymouth MI	48170	bspragile78@gmail.com
Toni Chiri	300 Cheryl LA 87544	662-6691	tchiri@doeal.gov
Michele Jacquez-Ortiz	SENATOR TOM UDALL, SF Staff		
Greg Mello	Los Alamos Study Group		
TRISH WILLIAMS-MELLO			

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NAME (please print)	ADDRESS	TELEPHONE NUMBER	E-MAIL
Bruce MacAllister	1473 Bishops Lodge Rd Santa Fe, NM	660-7800	Bruce@bizexteam.com
Edwin D. Groover	1306 Bimini Place Augusta GA 30909	706-726-5023	egroover83@hotmail.com
Tom Gallegos	PO Box 6014 Santa Fe 87502	(505) 577-3980	tgallegos000@MSN.com
Susan Gordon	Alliance for Nuclear Accountability		
Scott Kovac	NWNM	505-987-7812	scott@NUKEwatch.org
John Severance	LA Monitor	505 640-8430	John @ lamonitor.com
Teresa Chavez	1600 San Ildefonso #101 Los Alamos NM 87544	505/929-2869	teresaj_chavez@yahoo.com
Morrison Bennett	P.O. Box 160 Lamy NM 87540	505-667-3916	[illegible]@lanl.gov
Cindy Blackwell	PO Box 1663 MS A157 Los Alamos 87545	505-667-7512	cblackwell@lanl.gov
James Ryle	Santa Fe NM	505-984-3036	N/A

Page 3 of 5

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NAME (please print)	ADDRESS	TELEPHONE NUMBER	E-MAIL
JEAN RICHARDS	PO Box 310 Arroyo Seco 87514		jeanrichards@texas.net.com
ERICH KUERSCHNER	HCR 74 Box 24614 EL PRADO, NM 87529		erichwwk@gmail.com
Carlos Jaramillo	44B Rio Vista Rio Espanola NM 87532		wimethre@newmexico.com
Roger Snyder			RSNYDER@DOEAL.GOV
Linda Anaya			sandsent@msn.com
Steve Wells	1200 Trinity Los Alamos	/	/
DAVE FUELLING	1300 Siega Loop, LA	699 5619	davef@lanl.gov
SUSAN TERP	5 HOPI LN		sdterp@lanl.gov
Tony Griggs	LANS		griggst@lanl.gov
Selena Sauer	LANS		ssauer@lanl.gov

Page 4 of 5

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NAME (please print)	ADDRESS	TELEPHONE NUMBER	E-MAIL
John Tegtmeier	LASO	(505)665-0113	JTegtmeier@doeal.gov
Kay Tegtmeier	Los Alamos		
LONNY MORGAN	LOS ALAMOS	(505)6627452	LONMORGAN@MSN.COM
SUZ Coyne	LANL		
Kathy Sanchez	TWL 912 Fairview		
Paula Espinoza	13100 County Road M Antonito, CO 81120	719 843 0583	bioespin2398@yahoo.com
Mary Alice Trujillo		719 376 5587	
Jody Benson	LANL	5056678465	bensonj@lanl.gov
Lisa Puttkey	♡ STOP CMRR	★ STOP CMRR	STOP CMRR

Page 5 of 5