IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW MEXICO

THE LOS ALAMOS STUDY GROUP,

Plaintiff,

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

UNITED STATES DEPARTMENT OF ENERGY; THE HONORABLE STEPHEN CHU, in his capacity as SECRETARY, DEPARTMENT OF ENERGY; NATIONAL NUCLEAR SECURITY ADMINISTRATION; THE HONORABLE THOMAS PAUL D'AGOSTINO, in his Capacity as ADMINISTRATOR, NATIONAL NUCLEAR SECURITY ADMINISTRATION,

Defendants.

AFFIDAVIT OF GREGORY MELLO

State of New Mexico)
) ss.
County of Bernalillo)

Gregory Mello, under penalty of perjury, hereby declares as follows this 21st day of October 2010:

1. I am the Executive Director of the Plaintiff, Los Alamos Study Group ("Plaintiff" or "LASG"). I make this affidavit in response to Defendants' Motion to Dismiss for lack of jurisdiction.

2. I have held this position since 1992, when LASG made the transition from an informal association I co-founded in 1989 to a staffed organization. LASG is a § 501(c)(3) non-profit organized for the purposes of policy analysis and education regarding nuclear weapons

policies and institutions, especially Los Alamos National Laboratory ("LANL"), and other energy and environmental issues. My work involves technical analysis, advising government, education, litigation, providing information to journalists, scholars, and citizens, and the variety of administrative tasks that attend running a nonprofit citizens' organization.

3. I graduated with distinction from Harvey Mudd College in 1971 in systems engineering, with courses in environmental policy. I interned in the newly-formed EPA and then at the Central Clearing House in Santa Fe, then New Mexico's largest environmental organization, where I administered an external studies program in environmental policy. I was a HUD Fellow at Harvard and received a master's degree in Regional Planning. I worked for the New Mexico Environment Department (NMED, then a Division with the Health Department) twice in mid-1980s. In 1984 I led the first external regulation at LANL and was later a supervising geohydrologist at NMED. From 1989 through 1992 I was a hydrologist in private practice. Later, while at the Study Group, I was a visiting Research Fellow at Princeton University's Program on Science and Global Security. My analysis and opinions have been published in the *Washington Post, Bulletin of the Atomic Scientists, Issues in Science and Technology,* in thousands of news articles, and elsewhere. I have been invited to speak on nuclear weapons issues in many places, including the European Parliament and the United Nations. I have two decades of experience as a scholar and actor in the nexus of policy, management, and infrastructure of the nuclear weapons complex.

4. I have been following the development of the CMRR project carefully since its inception. It have taken part in hundreds of face-to-face meetings and conversations about this project in particular, NNSA infrastructure modernization, and plutonium warhead core ("pit")

production (the primary CMRR mission) with Defendants, cognizant executive branch officials, congressional staff, congressional research agencies, federal officials, and independent scholars. It has been my job to understand this project as thoroughly as possible and to help educate decisionmakers and the public about it as best I can. Some of our CMRR-related research and outreach products have been collected at http://www.lasg.org/CMRR/open_page.htm. Our print journalism archives on plutonium infrastructure and operations at LANL are gathered at http://www.lasg.org/Pit_Prod.htm. An extensively-footnoted background paper, current to one year ago, before the dramatic changes which are the subject of this litigation, can be found at http://www.lasg.org/CMRR_Dec_09.pdf.

5. I make this affidavit to present to the Court the facts concerning the following issues:

A. Defendants' purported compliance in 2003-04 with their obligations under the National Environmental Policy Act ("NEPA") with regard to the project known as the Chemistry and Metallurgy Research Replacement Nuclear Facility (CMRR-NF, Nuclear Facility) at LANL;

B. Changes in the CMRR-NF project in the last three years, which changes rendered the 2003-04 NEPA documents wholly obsolete and inapplicable to the project as it is now constituted;

C. How Plaintiff learned of the fundamental transformations in the CMRR-NF project and the growth in its expected environmental impacts; and

D. The nature of Defendants' commitment to the CMRR-NF project, such that they have predetermined the outcome of any further NEPA processes and it would serve no

purpose for the Court to await such processes; and

E. Plaintiff's members would suffer significant hardship if the project continues without judicial examination and NEPA review.

6. Although the facts presented here are fairly straightforward, this affidavit is based on a close review of hundreds of documents, running into tens of thousands of pages. There is no summary of relevant environmental information and analysis available, which is part of what we are asking for in this lawsuit.

A. Defendants' Purported NEPA Compliance to Date.

7. On November 14, 2003 Defendant NNSA issued a *Final Environmental Impact Statement* ("EIS") for the CMRR (http://nepa.energy.gov/finalEIS-0350.htm) and on Feb. 12, 2004 a Record of Decision supporting the construction of the CMRR project as then envisioned. (69 Fed. Reg. 6967-72, http://edocket.access.gpo.gov/2004/pdf/04-3096.pdf).

8. The 2003 EIS—the purported NEPA support for the construction of the CMRR-NF—analyzes certain construction alternatives, each of which includes largely similar facilities at one of two nearby technical areas. The facilities considered were "above-ground" structures, *i.e.,* construction would go no deeper than 50 feet, or "below ground," which meant at that time to a maximum of 75 feet deep. There was no discussion of excavation deeper than this, and no acknowledgment that "below ground" construction would entail penetrating to a thick layer of poorly-consolidated volcanic ash, a situation which would later generate extensive additional project requirements, costs, and impacts. The 2004 ROD selected an alternative involving "above ground" construction, which was described as providing an upper bound on environmental impacts. Defendants later abandoned this concept. This far-reaching change is

hardly the only major driver of the project's transformation. Fundamental defects in the original concept, such as in appropriate safety engineering, were exposed by independent oversight, as discussed below.

9. Not all changes in the project may be attributable to Defendants passive responses to new information and oversight. Some may stem from changes in Defendants' proposed future uses for the building and the land around it. In any case, the changes in project conception and requirements, and an increasingly-realistic appreciation of the strong constraints posed by seismicity, geology, soils, topography, access, and the close interaction (often interference) between this project and others and with current programs, have all strongly interacted in the design process to create a very different, far more expensive, and much more environmentally destructive project.

10. Defendants advised Congress in 2002 that *both* buildings of the CMRR project could be constructed for approximately $350-500 million plus administrative costs. (NNSA FY2003 Congressional Budget Request [CBR], Weapons Activities, Project 03-D-103, http://www.cfo.doe.gov/budget/03budget/content/weapons/RTBF.pdf) In the 2003 they again advised Congress that the total cost for *both* buildings, including $100 million in administrative costs, would be $600 million. (NNSA, FY2004 CBR: 347, http://www.cfo.doe.gov/budget/04budget/content/weapons/RTBF.pdf) Defendants advised Congress in 2003 that both buildings of the CMRR project would be completed near the end of calendar year 2010. (Id.). The 2003 EIS estimated completion of construction would occur even sooner, in 2009. (NNSA, Final CMRR EIS: S-28, http://nepa.energy.gov/nepa_documents/EIS/EIS0350/Summary.pdf) In 2003, when the CMRR

EIS was written, the Nuclear Facility was to have 60,000 square feet of area for management of plutonium ("Hazard Class 2" space) (NNSA, FY2004 CBR: 349, http://www.cfo.doe.gov/budget/04budget/content/weapons/RTBF.pdf) in a facility of 200,000 square feet gross area overall. (NNSA, Final CMRR EIS: 2-20, http://nepa.energy.gov/nepa_documents/EIS/EIS0350/Chapter02.pdf). Thus about 30% of the building was to be useful Hazard Class 2 space.

11. In May 2008 NNSA issued a *Final Site-Wide Environmental Impact Statement for the Continued Operation of the Los Alamos National Laboratory* ("SWEIS") for LANL. (http://nepa.energy.gov/1019.htm) The SWEIS incorporated the publicly announced plan of 2003-04 for the CMRR-NF, without change or updating.

12. In 2008 NNSA's *Complex Transformation Final Supplemental Programmatic Environmental Impact Statement* ("CTSPEIS") was issued. (http://nepa.energy.gov/1017.htm) Again, DOE's CTSPEIS included the publicly announced plan of 2003-04 for the CMRR-NF, without change or updating. DOE stated there that "because there will be no change to what has already been analyzed, no further facility NEPA analysis is planned." (CTSPEIS Vol III, Part 1 of 1, Comment Response Document: 3-57, http://nepa.energy.gov/documents/EIS-0236-S4_F-Vol1_Chap3.pdf) On December 19, 2008 NNSA issued two RODs pursuant to the CTSPEIS (73 Fed. Reg. 77644 – 63, http://edocket.access.gpo.gov/2008/pdf/E8-30193.pdf, http://edocket.access.gpo.gov/2008/pdf/E8-30194.pdf), one of which included a decision to proceed with design, construction, and operation of a Nuclear Facility at LANL—as analyzed in the 2003 EIS and incorporated into the SWEIS and CTSPEIS.

B. Fundamental Changes in the Scope of CMRR-NF Render the 2003 EIS Totally Inadequate.

13. Since 2004 certain events have drastically affected Defendants' plans for the CMRR-NF. Defendants changed their "design basis threat" standard for nuclear facilities so that above-ground facilities became politically disfavored for a variety of reasons. (Secretary of Energy Advisory Board [SEAB], "Recommendations for the Nuclear Weapons Complex of the Future," Draft Final Report, 13 July 2005: 16-17, H-5, http://www.cdi.org/PDFs/Report%20of%20the%20Nuclear%20Weapons%20Complex%20Infrastructure%20Task%20Force.pdf) Sometime between early 2007 and late 2009, for this reason and others never explained, Defendants abandoned the previously-selected "above-ground" design for the NF and moved to a design calling for excavation to 75 feet. (Defense Nuclear Facilities Safety Board [DNFSB], [CMRR] Facility Project Certification Review, Report to Congressional Defense Committees, September 2009: 2-4 – 2-6, http://www.hss.energy.gov/deprep/2009/FB09S04B.pdf) Once at this depth, Defendants ultimately decided, between September 2009 and March 2010, that the combination of soil and seismic conditions required them to excavate to a depth of approximately 125 feet and fill the bottom "50 feet" (CMRR Project Update, March 3, 2010: 44, http://www.lanl.gov/orgs/cmrr/publicmeetings/proceedings.shtml) or "60 feet" (Cook Aff. ¶13) of this excavation with solid concrete or grout before commencing construction of the actual building.

14. This current project is fundamentally different from that on which the 2003 EIS was premised, one where the total concrete and steel needed have increased by factors of *more than 55 and 23*, respectively, from what was described in 2003-04.

Concrete		Steel	
2003 EIS (*Two* buildings)	Now (CMRR-NF *only*)	2003 EIS (*Two* buildings)	Now (CMRR-NF *only*)
6,255 cubic yards (CMRR EIS: p. 2-21)[1]	347,000 cu. yds. (McKinney 6/16/10, slide 9)[2]	558 tons (CMRR EIS, p. 2-21)[3]	12,191 tons (rebar) plus 560 tons (structural) (Exhibit 1, Cook Aff. ¶13 respectively)

If the 2003 EIS had separated out the resource requirements for the Nuclear Facility, allowing a direct building-to-building comparison, the inflation in resources required would be revealed as far greater than shown here.

15. Since 2003 new information has raised questions about the configuration and the very mission of the CMRR-NF. DOE's JASON advisory group issued a public report in 2006, stating that most plutonium pits have a lifetime in excess of 100 years and there are "clear mitigation strategies" for those with lifetimes of 100 years or less. None will need replacement within the lifetime of the CMRR-NF. (JASON, Mitre Corporation, "Pit Lifetime," JSR-06-335, 20 November 2006, http://www.lasg.org/JASONs_report_pit_aging_ocr.pdf)

16. In 2007 a new Probabilistic Seismic Hazard Analysis (PSHA) was issued for LANL (URS Corporation, "Update of the Probabilistic Seismic Hazard Analysis and Development of Seismic Design Ground Motions at the Los Alamos National Laboratory," 25 May 2007: Executive Summary, http://www.lasg.org/LANL_PSHA_2007.pdf), containing a "significantly" increased estimate of the seismic hazard in both probability and maximum acceleration, with large amplification of peak acceleration expected at the CMRR site. This new

[1] http://nepa.energy.gov/nepa_documents/EIS/EIS0350/Chapter02.pdf
[2] McKinney, Tom. "LANL Construction Corridor," Los Alamos National Laboratory Construction Forum, Espanola, New Mexico, 16 June 2010: 9, http://www.lanl.gov/projects/pcc/presentations/Tom-McKinney_Prensation_for_Community_Forum.pdf
[3] http://nepa.energy.gov/nepa_documents/EIS/EIS0350/Chapter02.pdf

seismic information affected the project in multiple and fundamental ways, eventually leading NNSA to question, in January of 2009, whether it was feasible to complete the project. (Exhibit 2)

17. The current design for the CMRR-NF uses a "hotel concept" which incorporates large unsupported floor areas to accommodate unstated future missions. (DNFSB Staff Issue Report, "Review of [CMRR] Facility": 8, http://www.dnfsb.gov/pub_docs/staff_issue_reports/lanl/sir_20080530_la.pdf) This approach requires large increases in structural concrete and steel from amounts assumed in the 2003 EIS, with consequent environmental impacts. It was not part of the original 2003 project as described.

18. The DNFSB expressed serious concerns about the CMRR-NF design from the viewpoints of seismic and other safety issues. *(Id.)* Congress subsequently required NNSA and DNFSB to certify that the questions had been resolved. (http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:h2647enr.txt.pdf) Certification was made in September 2009, based upon several major design changes, and with many issues not yet resolved, including whether or not to excavate the layer of unconsolidated ash beneath the site and replace it with concrete. (DNFSB CMRR Certification Review: 2-4 – 2-6, http://www.hss.energy.gov/deprep/2009/FB09S04B.pdf)

19. In May 2009 the Obama Administration formally ended the Reliable Replacement Warhead program, which had been the only large-scale pit production mission intended for the CMRR-NF (see paragraph 65). Defendants then stated to Congress that they had not determined whether to proceed with the CMRR-NF project. (NNSA, FY2010 CBR: 215,

http://www.cfo.doe.gov/budget/10budget/Content/Volumes/Volume1.pdf) In September 2009 DOE's JASON advisory group reported to NNSA that new pit production was not necessary to the indefinite maintenance of the nuclear weapons stockpile. (JASON, Mitre Corporation, "Lifetime Extension Program (LEP) Executive Summary," JSR-09-334E, http://www.fas.org/irp/agency/dod/jason/lep.pdf) Defendants thereafter advised Congress that they planned to end pit production in FY 2011. (NNSA, FY2011 CBR: 81, http://www.cfo.doe.gov/budget/11budget/Content/Volume%201.pdf) Defendants adopted a policy of managing the stockpile without pit manufacturing, which would recommence only at the direction of the President and Congress. (Department of Defense, Nuclear Posture Review, April 2010: xiv,) Defendant NNSA began two reviews of the CMRR-NF project this summer 2010. (Exhibit 3) In May 2010 the Senate Armed Services Committee noted that the question of project size of the CMRR-NF was an open one and reported its concern that Defendants follow DOE Order 413, requiring the preparation of a complete project baseline, including an accurate cost estimate. (Senate Armed Services Committee [SASC] report, FY2011 Def. Auth. Act: 274, http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_reports&docid=f:sr201.111.pdf; http://www.defense.gov/npr/docs/2010%20Nuclear%20Posture%20Review%20Report.pdf)

20. In February of 2010, Defendants estimated total costs of the CMRR-NF at $3.4 billion. (NNSA, FY2011 CBR: 227, http://www.cfo.doe.gov/budget/11budget/Content/Volume%201.pdf) CMRR-NF has always been estimated to cost at least as much as its sister project in Tennessee, the Uranium Processing

Facility (UPF). An anonymous senior government official has confirmed to me what a press accounts had already said, that UPF is now estimated to cost over $5 billion. Authoritative press accounts quote multiple congressional sources as saying that the estimated cost of (CMRR-NF + UPF) is expected to be $11 billion. (Exhibit 3).

21. Therefore, the current estimated cost of CMRR-NF is between $5.5 and $6 billion. Multiple congressional and executive branch sources have told me that CMRR-NF as now designed will cost much more than had estimated, as the Biden letter of September 15, 2010 (discussed below) also makes clear.

22. Defendants now expect construction of the CMRR-NF to extend until 2020, with operations commencing in 2022. (Holmes, Rick, "[CMRR] Project": 4, http://eteba.org/Presentations/RickHolmestoNM6.10.10.pdf) The delay of more than ten years has its own impacts, which must be analyzed, and creates the need for interim use of the existing CMR Building and, therefore, interim safety and efficiency measures that also are not discussed in the 2003 EIS.

23. As of August 2009, Defendants were planning a 270,000 gross square foot Nuclear Facility with approximately 38,500 square feet of Hazard Category 2 programmatic space, including 22,500 square feet of laboratories. These plans envisioned a NF of 36% less Hazard Class 2 space in a building of about 44% more gross area than was proposed in the 2003 EIS and the 2003 budget request, giving a much smaller proportion of usable area for program use than was proposed and compared to alternatives in the 2003 EIS (i.e. 14% now vs. 30% then).

Planned CMRR-NF gross space categories as of August 2009 (*from* CMRR Project Update March 20, 2009: Fong slide 21, http://www.lanl.gov/orgs/cmrr/publicmeetings/proceedings.shtml (measured from image), broadly confirmed by teleconference with Steve Fong, August 12, 2009)		
Function	**Sq. ft.**	**Percent**
Labs	22,500	8
Vault	7,500	3
Miscellaneous	5,000	2
Large vessel handling	3,500	1
Utilities	71,500	26
Structure and building systems	160,000	59
Total	**270,000**	**100**

Since then, Defendants' staff have told us on several occasions that the gross square footage of the Nuclear Facility has grown, without clarification. NNSA has told me that the internal height (i.e. depth) of the Nuclear Facility has increased approximately 25 feet, its volume increased by roughly 2.6 million square feet, and its gross square footage increased by approximately 130,000 square feet. The Nuclear Facility project has continued to evolve further away from the simple plan outlined in 2003.

24. Much of the most recent information my colleagues and I have been able to compile about the expanding impacts of this project was obtained from Defendants written and oral presentations at their June 16, 2010 "Construction Forum" in Espanola, which I and other staff and board members of my organization attended and videotaped. The information provided at this forum was merely indicative, vague, and outside any context in which environmental impacts were or could be evaluated by any party. Any mention of environmental impacts was ancillary to the primary purposes of the meeting and comprised a very small fraction of the presentations. Of particular note were briefings with slides by Tom McKinney, LANL Associate Director, and John Bretzke, LANL Deputy Associate Director. It is by such small tidbits that my

colleagues and I have attempted to assemble a meaningful picture of the nature and impacts of this project, for which purposes Defendants' published NEPA analyses have been no use whatsoever. Defendants' 2003 NEPA analysis is highly misleading and incorrect, both positively and by gross omission. Only by expensive and time-consuming efforts can one gain even a fragmentary sense of what this project now entails. In my extensive personal experience, few if any relevant decisionmakers in government, outside Defendants' own directly cognizant staff and contractors, have any understanding of what this project now involves beyond the vague generalities provided to them by Defendants. Defendants failure to accurately describe their project, to thoughtfully analyze alternatives and impacts, and to provide for meaningful public, tribal, and governmental notice and comment opportunities has greatly harmed this organization, because it instead of being able to provide our knowledge, experience, and perspectives, and to assist Defendants and other government parties in providing thoughtful public education and discussion, I and my colleagues must expend scarce nonprofit resources in merely attempting to discover the most basic facts concerning Defendants' plans. In the period from March 12, 2010 until the filing of this lawsuit my organization filed several Freedom of Information Act (FOIA) requests, including requests for NEPA and NEPA-related analyses, in our attempt to learn basic information about this project. Defendant DOE has not responded to any of those requests.

25. The following partial transcript we prepared from this meeting illustrates the casual manner in which major new project elements, environmental and socioeconomic impacts, and NEPA compliance issues were mentioned or implied at this forum. (LANL Construction Forum videotapes, Study Group files) The sprawling project described in them, with acknowledged significant new regional impacts, bears little resemblance to the comparatively

small, self-contained project of the 2003 EIS. The following oral remarks are from Ike Richardson, Deputy Director of LANL (emphasis added):

> "As all of you are aware, the increased number of people at the work site translates into several indirect benefits to all the communities. These workers are going to need housing....A particular concern of mine is how are we going to house all these people.... These are people, these are trades, they want to have nice, clean accommodations, work here for six or seven years, and then go to the next big construction project. So housing is going to be a particular challenge."
>
> "Due to our planned closure that you'll hear about in just a moment —of Pajarito Road— there's going to be some disruption to commuters and their normal routines. We're currently completing a traffic study to fully understand these challenges and develop the operational strategies to minimize the impacts."

The following oral remarks were made by John Bretsky (emphasis added):

> "...we see this becoming a big deal, not just to Los Alamos National Laboratory, but to northern New Mexico in total. These projects [CMRR plus nine other "Pajarito Construction Corridor" projects] line up roughly all at the same time. The top project, the Nuclear Facility, this is ten years plus...."
>
> "When you add all that up [CMRR workforce plus nine other "Pajarito Construction Corridor" projects] we show that we're getting almost to a thousand additional craft going up and down the hill every day, working at the hill, to help us complete this particular scope. So a big impact."
>
> "Traffic studies is a huge one for us right now[....] We are going to be changing traffic flows. So we're trying to do our best right now to understand and predict where we think that traffic is going to go, what kind of impact are we going to have down in White Rock, what impact are we going to have on State Road 4, what impact are we going to have along the truck route, etc. We will be changing traffic loads at intersections. We know that. We're trying to quantify that right now...."
>
> "...as you can imagine bringing this number of new people up there it's already tight for parking. We need to figure out exactly where we're going to be asking primarily the construction workforce to park, truck them to the site. We know we don't have the flat area right around the area for them to just drive to the site itself."

"Road relocation: as part of looking at what we need to do with this particular road, an option we are looking at is can we slide it a little to the South. For those of you that have been on the road you know that it quickly drops off. So it's not an easy decision to make and its one that we're going through a lot of cost analysis right now to understand what's the best way to keep this place safe...."

"Craft facility: for those of you that have worked up there you know that we're kind of number 2 in the nation as far as lighting strikes. We need a place to be able to safely put the craft if the site comes under some kind of abnormal event, weather or otherwise, and so we need places for them to go to, so we're planning for that. We're going to need support to build that facility."

"Site prep. activities - a warehouse. We've probably got about a 10,000 square foot design warehouse that we need to build in the area to support the receipt of the equipment that's going to go into the Nuclear Facility."

"We show Pajarito Road on here as red. That's not a project per se, but that's when we see that we're going to have to have some restrictions on that road that are going to have a significant impact to the population along Pajarito. As Tom [McKinny] mentioned, we've got about 4,400 people that work every day along Pajarito Corridor, and somewhere in the middle of that road we're going to put up stop signs and say 'you gotta make a U-turn. And so we're going to be changing traffic flows, we know we're going to be changing traffic flows. We need to keep that road open for emergency vehicle access, fire, other emergency vehicles, security, etc., and so we'll maintain that, but that road will not be available for normal access."

"What we are anticipating is that we are going to have to shut down the road right here in this area, to back up in here [TA-48 to TA-46?, see video of presentation for clarification]. That's where we'll put the restriction in place. People will be able to come up from White Rock through Pajarito, and they'll be able to get to about the TA-48 area off of the Diamond Drive, for those of you familiar with the details of Los Alamos. But we've got a lot of people that work back here along Pecos Drive that are going to be impacted. Instead of them to go to meetings, for example, up in our main core area at TA-3, they're going to end up coming out of White Rock and going all the way around Highway 4 and back up the truck route. And so not only are we impacting northern New Mexico with the additional traffic loads, just to bring the construction personnel, construction material, all the concrete, the sand, the rock, etc., the aggregate up there,

but within the site itself we've got a lot of micro-planning that's going on in the background to try to help the lab deal with this impact because for a decade we are going to be disrupting their lives pretty significantly."

"Additionally there's truck inspection: you can imagine bringing this much steel, this much aggregate, this much material to the construction sites. Our current truck inspection facility which is supporting our ongoing mission operations is not capable of this kind of increased load, and so we'll probably be installing a dedicated truck inspection station that really is focused on the construction activities themselves."

Question from Vincent Chiravalle, Los Alamos County Council: "I'd like to understand if you've considered building a bypass road around the construction site...?"

Answer: "Yes we have considered that, and those options are still on the table. This is a difficult area to build an alternative route through because of the canyons and plateaus that we're dealing with, so we've got three or four different options that we're looking at, and part of this trade off study [unclear] is part of that."

26. On July 1, 2010, my organization wrote Defendants a letter with our profound concerns about the lack of NEPA compliance indicated in the new information we had gleaned, seeking to avoid this lawsuit. (Plaintiff's letter of July 1, 2010 to Secretary Chu and Administrator D'Agostino, http://www.lasg.org/CMRR/LASG_LOI_CMRR_1Jul2010.pdf) In that letter we attempted to summarize Defendants various statements, including those above, about the expanded nature of this project in a short table (Id., Table 1). New impacts and changes to the project have appeared since we prepared that Table, which now understates our concerns.

27. The acreage required for construction yards and office space, parking lots, concrete plants, utilities, security, spoil disposal, storm water retention, housing of construction workers, and road realignment has increased significantly since the 2003 EIS (see photograph of Defendant's very recent map not otherwise provided, Exhibit 4, which does not include remote

locations for spoils storage and disposal, truck inspection station, parking lot or lots, etc.) The CMRR EIS describes 26.75 acres of land disturbance for "construction...at TA-55." (NNSA, CMRR EIS: 4-12, http://nepa.energy.gov/nepa_documents/EIS/EIS0350/Chapter04.pdf). As now planned, direct disturbance impacts will extend far beyond TA-55 to include portions of TA-46, TA-48, TA-50, TA-52, T-63, TA-64, TA-66, and also to TA-54 or TA-36 for the required truck inspection facility that is now part of this project. In addition, Defendants now plan to close a major access road (Pajarito Road) for two years and thereby disrupt worksite access for approximately 4,400 people. Anonymous Defendants' contractor personnel have informed me that one or more large remote parking lots will be required and are being planned.

28. As noted above, concrete and soil/grout requirements have increased from 6,255 cubic yards (for *two* buildings) to 347,000 cubic yards. Production of the increased amount of cement and delivery of aggregate is likely to generate more than 100,000 metric tons of carbon dioxide in addition to mining impacts and other transport impacts. (See, for example, http://www.buildinggreen.com/auth/article.cfm/1993/3/1/Cement-and-Concrete-Environmental-Considerations/)

29. As noted above, steel requirements have increased from 558 tons to approximately 13,000 tons.

30. Estimated construction employment has increased from a peak of 300 (CMRR EIS, p. 2-21) to 822 (Bretzke, John, "Pajarito Construction Activities," LANL Construction Forum: 4, http://www.lanl.gov/projects/pcc/presentations/John-Bretzke_Prensation_for_Community_Forum.pdf). The increase will have impacts on local housing and infrastructure, as noted above.

31. The construction period has increased from 34 months to 144 months.

32. My calculations suggest that the remaining volume to be excavated from the site has increased from approximately 100,000 cubic yards to approximately 400,000 cubic yards. The increase will have impacts on transport, storage, and disposal, raising environmental, aesthetic and cultural issues. On numerous occasions Defendants have stated they may use spoil to cap some of the LANL material disposal areas for radioactive and hazardous waste that will be undergoing closure, an action requiring its own environmental analysis.

33. The completion date of the CMRR-NF has moved from 2009 to 2020, with operations beginning in 2022 at the earliest. Interim facilities to be used in 2010 through 2022 have not been identified, nor have impacts of interim use been analyzed.

34. Ancillary facilities now required for the CMRR-NF include a craft worker facility, an electrical substation, a truck inspection facility, and a warehouse.

35. Pajarito Road is expected to be closed for two years; as mentioned above temporary or permanent bypass(es) may be built.

36. As noted above, operations in other facilities along Pajarito Road may be displaced during construction, causing additional impacts.

37. The larger, heavier, and more deeply-buried CMRR-NF, with more internal equipment and fixtures, calls into question Defendants' ability to remediate and dispose of this facility, in situ or elsewhere, at the end of its life. Defendants' most recent attempted large plutonium facility had a working life of about one month. In October, 1988, Building 771, the plutonium-reprocessing "front end" of pit production, had to be shut down when three workers inhaled plutonium dust. Building 371, intended to replace it, was begun in 1973, completed in

1981 at a cost of $225 million, but operated for only one month in 1982 before DOE realized that the technology on which it was based would not work. The repair job was to cost $400 million and take eight years. DOE called it a "fiasco." (Schneider, Keith, "U.S. Spent Billions on Atom Projects That Have Failed, *New York Times*, December 11, 1988, p. A1)[4] The 2003 EIS did not analyze this problem.

38. These paragraphs only touch on the unexamined environmental issues facing this now-gigantic project. I have focused on construction impacts, which are to take place over a period Defendants say will be as short as a decade, and have not touched upon operational impacts, which new information available since 2003 has also changed. Defendants' 2003 EIS is grossly misleading and inapplicable.

39. Further, NNSA's willingness to proceed with a project that has increased in cost per square foot of useful space provided since 2003 by a factor of approximately 23 implies, there are many alternatives to meeting the stated mission need of projects of similar or lesser magnitude, cost, risk, delay in outcome, and environmental impacts that should be analyzed under NEPA.

C. Plaintiffs Became Aware of the Fundamental Transformations in this Project and Consequent Growth in its Expected Environmental Impacts only in March and June, 2010.

40. As noted in paragraph 4 above, where salient information regarding the CMRR has become available, or might have become available, I have diligently sought it.

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[4] http://www.nytimes.com/1988/12/12/us/us-spent-billions-on-atom-projects-that-have-failed.html?scp=1&sq=Schneider,%20Keith,%20%E2%80%9CU.S.%20Spent%20Billions%20on%20Atom%20Projects%20That%20Have%20Failed&st=cse

41. As a result of a settlement agreement to resolve disputes concerning an air quality permit issued by the New Mexico Environment Department (NMED) for CMRR construction, there have been 10 public informational meetings organized by defendants on a semi-annual basis. The sole purpose of these meetings is to update the public on aspects of the CMRR project and provide for some discussion of the project. The first meeting was on March 9, 2006. I have been present personally at many if not most of these meetings, and other members of the Study Group have been present at others. Usually a dozen or more interested and knowledgeable citizens have been present at these meetings. Presentations and verbatim transcripts from every meeting are archived at http://www.lanl.gov/orgs/cmrr/publicmeetings/proceedings.shtml. This record can be taken as a solid indication of what has been communicated to the public regarding changes in this project and the expected environmental impacts of those changes.

42. At the first eight of these meetings (through September 23, 2009), no changes in the Nuclear Facility project let alone any significant changes affecting environmental impacts, were mentioned in any presentation made by Defendants. Since the purpose of these meetings was to provide updated project information, the absence of information about project changes strongly implied to all present that there were no relevant changes to present. As far as communicating changes to the project, the first eight meetings comprise an entirely negative record.

43. In the September 2009 meeting, LANS CMRR project manager Rick Holmes clearly stated that the "direction" of the project had not substantially changed. (CMRR Project Update, September 23, 2009: 13, http://www.lanl.gov/orgs/cmrr/publicmeetings/proceedings.shtml)

> So, um, the direction to the project has not substantially changed. It is finish the rad lab facility within the baseline, which we are about to say, "Yep, we're done." Prepare for and get started on the equipment installation, and we've done that. Um, resolve the certification issues. And we've done that too. And keep working on the design, essentially, to maintain continuity of the design teams. And then, the budget for '09 was 97.2 million. For '10, the House [US House of Representatives] mark is at 55 million. We're at 97 million in the Senate [US Senate] version. I don't think the two committees have joined yet to reach a conference committee decision, um, because I think Congress has been a little busy lately. So the direction has not changed substantially to the project. [*emphasis added*]

At the time these statements were made, Defendants had just filed a certification report on Nuclear Facility design with Congress as noted above, which Mr. Holmes mentioned but did not describe in his oral presentation. This certification report required significant redesign, with dramatic impacts on resource use and environmental impacts.

44. At the March 3, 2010 meeting, a baseline schedule was presented showing 5 project phases. (CMRR Project Update, March 3, 2010, Fong presentation slide 20, http://www.lanl.gov/orgs/cmrr/publicmeetings/proceedings.shtml) (This management approach had been presented as an "option" to Congress in Defendants' February 2010 budget request.) Under this approach, construction was to begin in mid-FY2011 on an "infrastructure package," which included nine or more elements. A map showed involvement of additional technical areas (Id., slide 21). At this meeting I first learned of the 125 foot excavation depth being planned for the project and a "50 foot" thick layer of "lean concrete" to be emplaced beneath the foundation—a plan that more than doubled the concrete required (see below). It was also stated that there is no nearby source for coarse aggregate, implying many thousands of heavy truck trips from somewhere.

45. To date, Defendants have not mentioned any Nuclear Facility project changes in

any Project Data Sheet (PDS) submitted to Congress. PDSs are the primary way Congress is updated regarding Defendants' construction projects and are the primary basis for authorization and appropriation.

46. LASG has attempted to speak with Defendants' CMRR project leader in Washington, DC, but without success. Defendants' CMRR web site, http://www.lanl.gov/orgs/cmrr/, has been and remains highly uninformative.

47. Defendants' Los Alamos Site Office (LASO) CMRR project team has taken the time to answer some of LASG's questions about the project over the past few years. LASG's records show a total of 12 telephone conversations with a total of four people in this team over a twelve month period from 6/8/09 to 6/14/10, i.e. about one per month. Project staff has responded to specific questions, although often the answers were vague. However, there was no hint of any significant project change until June 18, 2009 when I asked Steve Fong, CMRR Project Manager at LASO, about the concrete and steel requirement in the context of seismic safety. Mr. Fong said these requirements were not yet known, but were "big."

48. On August 11, 2009, when I asked, Mr. Fong told me it was thought that the project needed 120,322 cubic yards of concrete and 12,191 tons of reinforcing bar. (Exhibit 1) No structural steel estimate was available. Mr. Fong said that the design team had "wrestled with" what he called "the soft zone" beneath the building. He said that NNSA "*may* remove this layer" to "reduce g forces" in seismic events (emphasis added). The amount of material involved, or the wide environmental import of this strategy, were beyond my imagination at the time. They were never mentioned.

49. The DNFSB certification report of September 2009 was the first public statement

that the Nuclear Facility would be placed 75 feet deep, i.e. deeper than mentioned in the 2004 ROD. (DNFSB CMRR Certification Review: 2-4 to 2-6, http://www.hss.energy.gov/deprep/2009/FB09S04B.pdf) The full range of changes caused by placing the building 75 feet deep were not mentioned and may have been unknown.

50. In an October 7, 2009 telephone conversation with Mr. Fong I heard again that the geotechnical aspects of the project were still in flux. This uncertainty was also communicated to me in multiple discussions with the DNFSB in Washington and New Mexico between October 2009 and February 2010.

51. I spoke with Tom Whitacre of LASO on March 10, 2010 concerning sand and gravel aggregate sources. He confirmed that crushed tuff might not work in cement grout, potentially increasing the number of truck trips needed yet again.

52. As noted above, on June 16, 2010 a "Construction Forum" in Espanola, NM. (LANL, "Los Alamos National Laboratory to host forum June 16, Businesses can learn about upcoming construction opportunities at Lab," http://www.lanl.gov/news/releases/los_alamos_national_laboratory_to_host_forum_june_16.html). The same day, LANL unveiled its "LANL Construction: Pajarito Corridor" web site, http://www.lanl.gov/construction/. In their talks and in the discussion that followed, Defendants mentioned significant new elements in the project, including some at locations other than those described previously, and mentioned significant local and regional additional environmental impacts, which had not heretofore been revealed.

D. NNSA's commitment to the Chemistry and Metallurgy Research Replacement Nuclear Facility (CMRR-NF, or Nuclear Facility) is unequivocal and specific.

53. Defendants ask the Court to dismiss this case, supposedly so that they can further

analyze the environmental impacts of the facility and then decide whether they should proceed. The fact is that the Defendants have already decided that the CMRR-NF will be built more or less as now planned. They are deeply engaged in detailed, final design, have partially excavated the site, are poised to let additional large contracts for the project, have sought and received emergency funding from Congress to accelerate their investment this fall and henceforward, and have begun ancillary construction. NNSA is committed not just to a general idea but to a very specific plan on which $210 million dollars has already been spent (Cook Aff. ¶19) and an additional unstated amount contractually obligated. Much has been spent, but about 96% of the project's expenditures lie ahead.

54. Defendants' budget submittals to Congress state that $289.5 million was appropriated for the Nuclear Facility in FYs 2002-2010. (NNSA FY2011 CBR: 223 under "Total Project Cost", http://www.cfo.doe.gov/budget/11budget/Content/Volume%201.pdf) An additional $168.5 million was appropriated on October 1, 2010 in the Continuing Resolution. Based on the spending pattern in Defendants' budget request, if Congress extends this appropriation for the balance of FY2011, the total federal commitment to date is $458 million.

55. In this Court Defendants signal their clear commitment to this project. They state: "The proposed CMRR-NF is a unique facility, central to LANL's mission and critical to the national security of the United States. The proposed facility...is critically necessary as a replacement for the 60-year-old Chemistry and Metallurgy Research Building ("CMR") at LANL." (Mot. at 1) Defendants' witness, Donald Cook, swears to "the importance of the CMRR Project to our national defense" (Cook Aff. ¶2), pointing out that the missions currently

housed in the CMR building are important to national defense and NNSA has determined that they should continue in the CMRR. (Cook Aff. ¶8).

56. Defendants in the late 1990's pursued upgrades to the existing CMR Building, but in the early 2000's they decided to build a new facility. Thus, Defendants stopped the CMR upgrades at the end FY2001 in favor of a future CMR replacement project. (NNSA, FY2002 CBR: http://www.cfo.doe.gov/budget/02budget/weapons/readtech.pdf) The following year (FY2002), $7 million was spent on conceptual design of the CMRR. (NNSA, FY2003 CBR: http://www.cfo.doe.gov/budget/03budget/content/weapons/RTBF.pdf) Defendants have not wavered from that decision. Thus, the 2003 EIS analyzed no alternatives that did not contain a Nuclear Facility (except for the "No Action" alternative).

57. By late 2009, as evidenced by Defendants' proposed FY2011 budget (prepared in late 2009 and submitted to Congress in early February), Defendants' commitment to the project had become total and intense, with requested annual funding rising to $168.5 million, from a FY2010 level of $58.2 million. (NNSA, FY2011 CBR, http://www.cfo.doe.gov/budget/11budget/Content/Volume%201.pdf). The project was expected to proceed into final design and initial construction in FY2011.

58. Defendants are committed to a very specific project. Thus, as noted above, on September 14, 2009 they sent to Congress a design safety certification report, which was a condition of authorization of $50 million of the FY 2010 funding. That certification could only be made as to a specific design, based on detailed review and analysis by NNSA and LANS and their specialist contractors and subcontractors, as well as DNFSB. The certification requirement led to addition of concrete and steel, replacement of a geological stratum, requirements for more

"safety class" and "safety significant" equipment and building systems, and other changes—increasing costs and enhancing the environmental impacts.

59. Defendants' stated commitment to this project has only increased in intensity during the present litigation. On September 15, 2010, one day before a planned vote on ratification of the "New START" treaty in the Senate Foreign Relations Committee, Vice President Biden wrote to the Committee, promising the Administration's "unequivocal" commitment to the CMRR Nuclear Facility and other NNSA projects. (Biden, Jr., Vice President Joseph R., Letter to Senator John F. Kerry, 15 September 2010: 124-125, http://foreign.senate.gov/download/?id=4C65B25B-F3E8-4CF6-8660-36E21D639ECC). This letter is dated two days before defendants' attorney[s] wrote plaintiffs promising to prepare a Supplemental Environmental Impact Statement (SEIS), a process supposedly intended to provide an objective review of whether or not to build the Nuclear Facility. The Vice President acknowledged that the estimated costs of these modernization projects had increased, and he promised that the Administration would seek *additional* funding from Congress to cover the rising costs in "future budget years." He spoke of the President's pursuit of an "immediate start" to these modernization initiatives, including the CMRR-NF, pointing to their requested inclusion in the Continuing Resolution (Office of Management and Budget, "FY2011 Continuing Resolution (CR) Appropriations Issues": http://republicanleader.house.gov/UploadedFiles/CRanomalylist.pdf). Biden stated:

> Since the New Strategic Arms Reduction Treaty (New START) was submitted to the Senate for advice and consent, questions posed...have highlighted...the Administration's plans to modernize the U.S. nuclear weapons complex, in particular the President's budget request for FY 2011 and projected out-year requests.... I write to assure the Committee of the Administration's strong support for this program...The FY 2011-2015

> President's Budget was based on the best estimates available at that time, and reflected our assessment of necessary investments and the capacities to absorb increased funding...NNSA has used the time since the spring...to work on updating initial assumptions. We now have a more complete understanding of stockpile requirements, including the life extension program needs. Similarly, the designs of key facilities such as the Uranium Processing Facility and the Chemical and Metallurgy Research Replacement Facility have progressed...we expect that funding requirements will increase in future budget years.
>
> Later this fall, the Administration will provide the Congress with information that updates the Section 1251 report [laying out future plans and budgets]....
>
> Finally, the Administration has actively engaged the House and Senate Appropriations Committees in support of the President's 2011 request, and we will continue to do so. Moreover, as further evidence of the President's commitment to an immediate start to his modernization initiatives, the Administration earlier this month recommended that the Committees provide for a rate of operations consistent with the President's request for NNSA weapons activities during any continuing resolution period.
>
> This Administration has expressed its unequivocal commitment to recapitalizing and modernizing the nuclear enterprise, and seeks to work with Congress on building a bipartisan consensus in support of this vital project....

The Administration's "unequivocal commitment" to the project, including an "immediate" start to the CMRR-NF project, refers, and can only refer, to the existing, certified project design.

60. The "immediate" increase in funding supplied by the Continuing Resolution (H.R. 3081, "An Act making appropriations for the Department of State, foreign operations, and related programs for the fiscal year ending September 30, 2010, and for other purposes," 29 September 2010, http://appropriations.senate.gov/customcf/uploads/34ddd9ae-1c8b-4672-b658-a98ee03ea3de/CR%20Text.pdf), presuming it is continued through FY 2011, would

increase the annual appropriation for nuclear weapons spending at LANL by $338 million, or 26%, the largest absolute and percentage increase in funding since the Manhattan Project. Annual funding for the Nuclear Facility comprises half of this increase. (Exhibit 5). The overall financial commitment represented by the CMRR-NF approximately equals the $5.9 billion replacement cost of *all existing buildings and facilities at LANL put together* (*See* http://www.lanl.gov/news/index.html). Expected Nuclear Facility costs exceed the costs of all activities of the Manhattan Project in New Mexico ($899 million in inflation-corrected 2010 dollars), by approximately a factor of six. (Exhibit 6).

61. Defendants' have continued to pursue this project despite its more than ten-fold explosion in expected cost, from $300 to $400 million in 2002-03 (if we reasonably assign two-thirds of the initial cost given both buildings to the Nuclear Facility), to $3.4 billion by February, 2010, and on to a reported $5.5 to $6 billion today. The even greater increase in cost per square foot of useful space (see Cook Aff. ¶20) underscores the Administration's apparently unshakable commitment to this specific project.

62. The procurement process bears out this commitment, to the extent we can see into it. The prime contractor for the CMRR-NF is Los Alamos National Security, LLC (LANS), the management and operating (M&O) contractor for LANL. Most Nuclear Facility expenditures to date have been to LANS, or through LANS to its subcontractors, and are largely opaque to the public. Now LANS, in addition to whatever contracts NNSA itself has let and is planning to let in the near future, is reportedly planning to let significant new contracts for Final Design of the

Nuclear Facility this month, the first in the new fiscal year, when a large new tranche of money was expected to be available, and now is. (DNFSB, "Los Alamos Report for Week Ending July 23, 2010," http://www.dnfsb.gov/pub_docs/weekly_reports/lanl/wr_20100723_la.pdf)

> **Chemistry and Metallurgy Research Replacement (CMRR) Project:** The Integrated Design Coordination Meeting for the CMRR project was conducted in Los Alamos this week and included representatives from NNSA, LANL and project subcontractors. For the CMRR Nuclear Facility, the project is completing the closure of issues identified in the Technical Independent Project Review that was conducted late last year. The CMRR Nuclear Facility final design contracts are expected to be awarded in October. (emphasis added)

63. In addition to these contracts, LANS also plans to issue requests for proposals (RFPs) for at least $60 million for CMRR-NF construction this month and next. (Exhibit 7). These RFPs include $30 million in "site excavation," $25 million in "site preparation laydown," $5 million in "site utilities relocation," and $10 million in "temporary utilities." Obviously these RFPs concern construction activities.

64. In addition, LANS has issued a number of requests for interest (RFIs) for very detailed aspects of Nuclear Facility design.[5] These detailed RFIs are premised on the existence of a specific Nuclear Facility design.

65. Further, Defendants' commitment to the project is reflected by the excavation of 90,000 cubic yards of earth and rock at the CMRR-NF site in late 2006. (Aerial photograph, Exhibit 8). The House Appropriations Committee criticized this excavation as premature:

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[5] http://www.lanl.gov/orgs/sup/procurement/solicitations/cmrr2010/BubbleTightIsolationDamper.pdf, http://www.lanl.gov/orgs/sup/procurement/solicitations/cmrr2010/DieselEngineDrivenGenerators.pdf, http://www.lanl.gov/orgs/sup/procurement/solicitations/cmrr2010/HVAC_FanAssemblies.pdf, http://www.lanl.gov/orgs/sup/procurement/solicitations/cmrr2010/NuclearAirTreatmentSyst.pdf, http://www.lanl.gov/orgs/sup/procurement/solicitations/cmrr2010/SafetyClassFirePump.pdf, and http://www.lanl.gov/orgs/sup/procurement/solicitations/cmrr2010/SafetySignifAirHandling.pdf

> The CMRR facility has no coherent mission to justify it unless the decision is made to begin an aggressive new nuclear warhead design and pit production mission at Los Alamos National Laboratory....The [House Appropriations] Committee is concerned the NNSA is proceeding with large expenditures for this project [CMRR] while there are significant unresolved issues, and recommends the fiscal year 2007 [sic – 2008] funding be held in reserve. Although the NNSA claims the Nuclear Facility Phase 3 of the project is under review, the Committee notes the Laboratory excavated 90,000 cubic yards of soil at the construction site where the CMRR Phase 3 Nuclear Facility is proposed to be built. The Committee also notes the Department's CMRR acquisition strategy combines Critical Decision 2 (approval of performance baseline) and Critical Decision 3 (approval to start construction) under DOE Order 413.3A on project management. The Committee does not support construction projects that fail to strictly adhere to DOE Order 413.3 requirements by abbreviating the process.
>
> (House Report 110-185, June 11, 2007: 105, http://thomas.loc.gov/cgi-bin/bdquery/z?d110:H.R.2641)

A "need" to excavate and dispose of 90,000 cubic yards of tuff – a volume the size of a football field, 51 feet deep – for the sole purpose of conducting a shallow geotechnical investigation (as opposed to boring or trenching as LANL has done in other investigations) is not credible. This excavation was not necessary to create a laydown yard for construction of the first CMRR building at that site.

66. Defendants' increasing commitment is confirmed by examining their project management requirements and, specifically, where NEPA compliance fits into them. DOE Order 413.3A, "Program and Project Management for the Acquisition of Capital Assets," describes mandatory capital project management. DOE uses four project phases (Initiation, Definition, Execution, and Transition/Closeout) and five formal milestones, called "Critical Decisions" (CDs). These latter are: CD-0, Approve Mission Need; CD-1, Approve Alternative Selection and Cost Range; CD-2, Approve Performance Baseline; CD-3, Approve Start of Construction; and

CD-4, Approve Start of Operations or Project Completion. (DOE O 413.3A Chg 1, Program and Project Management for the Acquisition of Capital Assets, 28 July 2006, https://www.directives.doe.gov/directives/current-directives/413.3-BOrder-a1/view?searchterm=None). DOE Order 413.3A describes the CD process as follows:

> The five Critical Decisions are major milestones approved by the Secretarial Acquisition Executive or Acquisition Executive that establish the mission need, recommended alternative, Acquisition Strategy, the Performance Baseline, and other essential elements required to ensure that the project meets applicable mission, design, security, and safety requirements. Each Critical Decision marks an increase in commitment of resources by the Department and requires successful completion of the preceding phase or Critical Decision. [*emphasis added*] Collectively, the Critical Decisions affirm the following:
>
> - [CD-0] There is a need that cannot be met through other than material means;
> - [CD-1] The selected alternative and approach is the optimum solution;
> - [CD-2] Definitive scope, schedule and cost baselines have been developed;
> - [CD-3] The project is ready for implementation; and
> - [CD-4] The project is ready for turnover or transition to operations.

67. Table 2 in this Order lists the "mandatory prerequisites" for each CD. Defendants must complete "environmental documents, including [NEPA] strategy and analyses, and permit applications" during the CD-0 stage, prior to CD-1 approval. The CD-0 stage is described as follows.

> CD-0, Approve Mission Need. The Initiation Phase begins with the identification of a mission-related need. . . . The mission need is independent of a particular solution, and should not be defined by equipment, facility, technological solution, or physical end-item. This approach allows the Program the flexibility to explore a variety of solutions and not limit potential solutions. (*emphasis added*)

That is, under Order 413.3A, Defendants may not choose a particular facility or alternative before completion of NEPA analyses. Only after NEPA analysis is complete may defendants proceed to the project execution phase:

> CD-1, Approve Alternative Selection and Cost Range. CD-1 approval marks the completion of the project Definition Phase, during which time the conceptual design is developed. This is an iterative process to define, analyze, and refine project concepts and alternatives. This process uses a systems methodology that integrates requirements analysis, risk identification and analysis, acquisition strategies, and concept exploration to evolve a cost-effective, preferred solution to meet a mission need. Approval of CD-1 provides the authorization to begin the project Execution Phase and allows Project Engineering and Design funds to be used. For design-build projects, Project Engineering and Design funds may be used to develop a Statement of Work/Request for Proposal. Additionally, long-lead procurements may be approved during this phase, provided National Environmental Policy Act documentation is prepared, where applicable. [*emphasis added*]

Defendants approved CD-1 ("Approve Alternative Selection and Cost Range") for the CMRR project in May, 2005 (Bretzke, John. "Pajarito Construction Activities," LANL Construction Forum, 16 June 2010; S7, http://www.lanl.gov/projects/pcc/presentations/John-Bretzke_Prensation_for_Community_Forum.pdf). Under DOE's management system, Defendants chose their alternative at that time and began the "Execution" phase.

68. The same relationship of NEPA compliance with project management phases can also be found in DOE Order 430.1, "Life Cycle Asset Management." (DOE G 430.1-1, Chapter 3, "Stages of Project Development," 28 March 1997, https://www.directives.doe.gov/directives/current-directives/430.1-EGuide-1-Chp03/view). Under "Stages of Project Development" (Chapter 3) NEPA analysis is to be completed in the "Pre-Title I phase of project development," i.e. prior to preliminary design and CD-1, just as in Order 413.3A.

69. Under DOE Order 413.3, reopening the consideration of alternatives by preparing a SEIS would bring the project back to the CD-0 (conceptual design) "Definition" stage, where "alternative concepts, based on user requirements, risks, costs, and other constraints, are

analyzed to arrive at a recommended alternative." (DOE O 413.3A Chg 1, Program and Project Management for the Acquisition of Capital Assets, 28 July 2006, https://www.directives.doe.gov/directives/current-directives/413.3-BOrder-ac1/view?searchterm=None). In that stage, all engineering design would cease. Obviously, this has not happened.

70. Defendants' commitment to their current plans for the CMRR-NF is also shown by their approach in managing CMRR-NF as a "design-build" project—a system that combines stage CD-2 ("Approve Performance Baseline") with CD-3 ("Approve Start of Construction") into a single "CD-2/3." The design-build approach accelerates the agency's commitment closer to the beginning of the project. The approach may aid speed and economy *on simple projects.* Defendants' Order 413.3A describes the circumstances for which a "design-build" procedure is suitable:

> Design-Build is a project delivery method where a single contract is awarded for both design and construction. Design-Build can be used most successfully with projects that have well-defined requirements, are not complex, and have limited risks. This applies to projects that have few "unknowns" or new technology requirements, little to no program or system integration, and are not unique or first-of-a-kind. . . . Projects for which Design-Build is an appropriate delivery method will generally have clear and well-defined requirements early in the process. Accordingly, at the time of CD-0, much of the cost and schedule information is known along with key design criteria. [*emphasis added*]

Obviously, the CMRR-NF project does not fit the requirements for a design-build project.

71. Nevertheless, Defendants have taken design-build a step further, dividing the project into separate "packages," or "chunks" as they sometimes call them, *each* of which is to proceed by a design-build process *at different times.* (Bretzke, John. "Pajarito Construction Activities," LANL Construction Forum, 16 June 2010: S7,

http://www.lanl.gov/projects/pcc/presentations/John-Bretzke_Prensation_for_Community_Forum.pdf) There are five separate phases or "packages," the first two of which are to be completed (*i.e.* past CD-4), and construction on the third far along (normally, past CD-3), while the structure and internal systems remain at CD-1, awaiting initiation of final design and construction (CD-2/3). Thus, construction is slated to begin years before even *preliminary* design of the Nuclear Facility *building* is concluded. As a result, federal commitment to the entire project occurs at a very early stage, raising the management risk even higher than it is already is for a project whose final stages are complicated, expensive, and unique. Many of the project's construction impacts would occur prior to completion of preliminary facility design, or a reliable cost estimate and schedule for the project.

72. These first three of five phases of the Nuclear Facility project ("Infrastructure Package Construction," Pajarito Road Relocation Package Construction," and "Basemat Construction") involve very significant environmental impacts and can be expected to generate much if not most of the environmental impacts from construction. (Id.) Each of these construction "packages" constrains later design phases. For instance, site excavation has a precise size, location with certain exact provisions and alignments for utility connections, and so on. Thus, Dr. Cook's affidavit states (¶13) that the current size of the building is "342 feet by 304 feet," in keeping with the need for specificity at this stage.

73. Defendants' final design and construction "go-ahead" (CD-2/3) for the "Infrastructure Package" is estimated to occur in March 2011. (Bretzke, John. "Pajarito Construction Activities," LANL Construction Forum, 16 June 2010; S7, http://www.lanl.gov/projects/pcc/presentations/John-

Bretzke_Prensation_for_Community_Forum.pdf) This "Infrastructure Package" includes one or more concrete batch plants (the project requires two), "temporary utilities," "site preparation laydown," "site utility relocation," "site excavation," "soil stabilization," "warehouse design/build," and (electrical) "substation design/build." (Id.) For these construction activities CD-2/3 would be the *final* stage in project approval, after which construction would run to completion. As noted above, RFPs for the much of this work (defendants' estimated cost: $60 million) are currently poised for release.

74. Despite the lack of formal CD-2 approval, Defendants revealed in February 2010 that appropriations and obligations for "Final Design" of the Nuclear Facility actually began in FY 2008. At that time a breakdown of expenditures was provided to Congress. (NNSA, FY2011 CBR: 221, http://www.cfo.doe.gov/budget/11budget/Content/Volume%201.pdf). Appropriations and obligations for Final Design of the Nuclear Facility were $39.4 million in FY2008, $92.2 million in FY2009, and $57 million in FY2010. Some $166 million for Final Design of the Nuclear Facility was requested for FY2011.

E. Plaintiff's Members would Suffer Harms if the Project Continues Without NEPA Review.

75. Defendants have asserted that it would not harm Plaintiff's interests if Defendants proceed with the project. (D.Br. 14) But the hardship is real. Plaintiff has about 2,691 members within 50 miles of LANL and about 2,341 within 30 miles of LANL. Plaintiff's members stand to be adversely affected by the short and long-term environmental impacts of the CMRR project and related projects. In addition, Plaintiff and its members have sought to obtain and disseminate information about the CMRR project since approximately 1999 and have commented to DOE and NNSA about that project at all available opportunities. As noted above,

Defendants have greatly impeded Plaintiff in its chartered purpose.

76. Members of the Plaintiff organization are exposed to these risks and injuries:

A. Immediately forthcoming impacts of the construction effort, including the closure of Pajarito Road to all but construction workers; the onset of large-volume truck traffic as massive quantities of concrete and other construction materials are brought to the site; years of dust, noise, fumes, and air pollution attendant upon major construction work; the visual impact of removal and relocation of huge volumes of excavated spoil; and the destruction of large swaths of vegetation, impacting vistas and native wildlife.

B. Short-term risks of the continued operation of the existing CMR Building, which Defendants have failed to maintain in condition that meets current standards for seismic risk and for risk of nuclear accident and release of radionuclides.

C. Fifty years of enhanced risks of installation and operation of an enlarged Plutonium storage, research, and fabrication facility in Los Alamos, containing at least twice the plutonium capacity of the current CMR building, and capable of carrying out large-volume plutonium pit production, operations that entail significant risks of nuclear accident and release of radionuclides.

D. Risks of releases of radioactivity and hazardous substances in the demolition of the existing CMR Building and the ultimate demolition of the CMRR Building, when its life is concluded.

77. In this situation, Plaintiff is exposed to clear risks of future environmental damages affecting their interests, and Plaintiff respectfully submits that the case should not be dismissed, but should go forward to trial and enforcement of NEPA.

Gregory Mello, Affiant, being first duly sworn states on oath, that all of the representations in this Affidavit are true as far as the Affiant knows or is informed, and that such Affidavit is true, accurate and complete to the best of Affiant's knowledge and belief.

Dated: October 21, 2010.

Gregory Mello

Gregory Mello

SUBSCRIBED AND SWORN TO before me this 21st day of October, 2010, by Gregory Mello.

Notary Public

My Commission Expires: May 26, 2013

OFFICIAL SEAL
TASHA HORTON
Notary Public
State of New Mexico
My Comm. Expires 5-26-13