

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.

THIRD AFFIDAVIT OF GREGORY MELLO

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

Gregory Mello, under penalty of perjury, hereby declares as follows this 14th day of
January 2011:

1. I am a member and the Executive Director of the Plaintiff, Los Alamos Study Group (“Plaintiff” or “LASG”). I make this affidavit in support of Plaintiff’s Motion for Preliminary Injunction.
2. My background and qualifications were described in ¶¶ 2-5 of my first Affidavit.
3. I make this affidavit to present pertinent facts concerning the following issues relative to defendants’ Chemistry and Metallurgy Research Replacement (CMRR) project.
 - A. Defendants have been implementing their selected CMRR alternative, including the

CMRR Nuclear Facility (CMRR-NF), since February 2004, have undertaken extensive contractual obligations and construction in support of CMRR-NF since 2005, and are doing so now.

- B. Certain statements in the declarations of Mr. Herman LeDoux and Mr. Roger Snyder require clarification to avoid misleading the court. In particular, the relief sought by plaintiff in no way affects national security.
 - C. Potential alternatives to CMRR-NF can be named which, if analyzed, may be found to meet defendants' mission needs more effectively at lower cost, environmental impact, and management risk than CMRR-NF.
 - D. From a value engineering perspective the value of CMRR-NF has declined dramatically, suggesting a hard look at alternatives is warranted.
 - E. The proposed Supplemental Environmental Impact Statement (SEIS) could never provide objective analysis of all reasonable CMRR-NF alternatives, as required by NEPA.
 - F. An objective National Environmental Policy Act (NEPA) analysis of CMRR-NF and its alternatives is impossible without certain prior actions by defendants.
- A. Defendants began implementing their selected CMRR alternative, including CMRR-NF, in February 2004, have undertaken extensive contractual obligations and construction in support of CMRR-NF since 2005, and are doing so now.

4. From the beginning the CMRR project has been *planned, analyzed* under the National Environmental Policy Act (NEPA), *designed, funded, and built* as a single integrated project. Although this lawsuit has focused on the CMRR Nuclear Facility (CMRR-NF), much of the Radiological Laboratory, Utility, and Office (RLUOB) component has no other purpose than to support the planned CMRR-NF. As Los Alamos National Laboratory (LANL) CMRR Project

Director Dr. Timothy Nelson said in 2006 after RLUOB construction had begun, "...[A] good way to look at this building [RLUOB] is, it's actually a support building for the major building of the [N]uclear [F]acility."¹

5. The CMRR-NF comprises at least 90% of the total CMRR project cost, and would cause most of the project's environmental impacts. CMRR-NF is also the project component that, after September 2009, increased dramatically in scale, environmental impact, and cost from what defendants described in their 2003 environmental impact statement (EIS) and chose in their 2004 Record of Decision (ROD). Many contractual obligations and a great deal of construction, procurement and installation of specialized equipment began in 2005 and have continued ever since – all tailored specifically for the future CMRR-NF and unnecessary without it. Most CMRR project investment to date supports the planned nuclear laboratories in CMRR-NF, which will handle tons of plutonium, and not the radiological laboratories in RLUOB, which will handle only grams or an equivalent amount in other radionuclides. Thus, CMRR project execution has caused and is causing environmental impacts and irretrievable resource commitments in support of a future CMRR-NF.

6. Without detailed information about the RLUOB project which is not public, it is impossible to know exactly which of the pending investments at RLUOB relate exclusively to the RLUOB building and its functions. Those which do can certainly be completed as planned with or without CMRR-NF. While RLUOB has approximately doubled in scale and cost since first described to Congress in 2003,² its descriptions in the 2003 EIS and 2004 Record of

¹ National Nuclear Security Administration (NNSA), CMRR Public Meeting, September 19, 2006, p. 26 [p. 6 of oral transcript].

² RLUOB has increased in scale from an estimated 90,000 gross sq. ft. in 2003 to an actual 208,125 sq. ft. today. The original CMRR cost estimates were for the project as a whole. Under the assumption that roughly one-third of these costs could be attributed to RLUOB, the 2003 total estimated cost for RLUOB was \$166 million, vs. \$363

Decision (ROD) are too vague to invite comparison. Most RLUOB construction impacts are in the past. It is with respect to the Nuclear Facility (“NF”) that obvious, egregious NEPA violations have occurred and are occurring, which is why plaintiff has focused on this structure. Much of the RLUOB construction is however compelled by defendants’ prior, patent commitment to construct the CMRR-NF.

7. The CMRR project was preceded by a decade of increased investment in the CMR building. This began in 1990, when funds for needed safety upgrades were conveyed in a “Phase 1” subproject of a nation-wide facilities upgrade line item. In 1995, with the advent of a more ambitious “Phase 2” effort, the CMR Upgrades Project was made into a stand-alone project (95-D-102). The CMR upgrades were designed to provide 20 to 40 additional years of CMR service and included extensive structural modifications to meet seismic standards and many other upgrades.³ The CMR Upgrades Project did not upgrade CMR wings 2 and 4 which were “not required for current missions.”⁴ These wings were later found to be underlain by an active earthquake fault. The seismic upgrades were never executed and the CMR Upgrades Project was terminated in 2001 in favor of CMRR.

8. The CMRR project began with a January 1999 strategy for managing risks in the Chemistry and Metallurgy Research (CMR) building at LANL. In mid-April 1999 Senator Jeff Bingaman announced that he would seek \$5 million in additional funding to begin planning for a new plutonium facility at LANL, which became CMRR. His spokesperson said “This would not be a Taj Mahal but a scaled-down, streamlined facility that would meet the needs of the lab at a

million today. NNSA FY2004 Congressional Budget Request (CBR) pp. 347, 349; NNSA FY2011 CBR p. 227-228 (add RLUOB, \$164 million & REI [“RLUOB Equipment Installation”], \$199.4 million).

³ DOE, FY1999 CBR, CMR Upgrades Project 95-D-102 (no pagination).

⁴ “Environmental Assessment for the Proposed CMR Building Upgrades at the Los Alamos National Laboratory,” February 4, 1997, DOE/EA-1101, pp. vi, 13.

lower cost than they are met now.”⁵ Initial CMRR project planning began sometime after this date using LANL operating (i.e. program) funding.

9. Prior to the 2004 ROD defendants relied upon this January 1999 strategy “decision” to justify CMRR line item funding requests to Congress. These requests resulted in appropriations of \$27 million for FY2002 through FY2004 (not counting operational funds expended from FY1999 through FY2001 on planning and conceptual design). This was a significant (pre-NEPA) commitment to the project, spanning six fiscal years. During this period defendants scrapped a previously approved, designed, and funded plan to upgrade the existing CMR building to improve safety, with deleterious safety consequences that defendants now use to justify a grandiose CMRR-NF.⁶ That plan would have cost approximately 5% of the presently estimated cost of the CMRR project, i.e. \$224 million including past work.

10. Defendants did the initial work on a mission need statement for replacing the CMR building in 2000.⁷ In April 2001 LANL planned the CMRR as a Hazard Category (HazCat) III “or less” building. Such a facility could contain less than 0.9 kg of plutonium-239 or equivalent radiological hazard and could not house even a single plutonium warhead core (“pit”). Despite that limitation this prospective CMRR was judged capable of supporting all of LANL’s analytical chemistry needs, allowing CMR decommissioning and disposal (D&D).⁸ Obviously, such a structure could not include a vault for 6 metric tons of plutonium or

⁵ Ian Hoffman, “Bingaman seeks funds for design of weapons facility,” *Albuquerque Journal*, 4/15/99; Barbara Ferry, “\$5 M requested for new LANL complex,” *New Mexican*, 4/15/99. At http://www.lasg.org/PU_Media/PU_Vol_7_1999_&_2000.pdf.

⁶ NNSA FY2000 CBR, CMR Upgrades Project, 95-D-102 (no other page number).

⁷ LANL, “Comprehensive Site Plan 2001,” p. 75.

⁸ Op. cit. p. 33.

laboratories for processing plutonium in large quantities, as the CMRR-NF is now conceived.⁹ In the 2001 plan, defendants expected that any activities requiring large quantities of plutonium would take place in Building PF-4, as they do today. Defendants were aware of space inefficiencies in PF-4 which they could exploit.¹⁰ (An expert panel later estimated PF-4's production efficiency for pits at less than 5%.)¹¹ NNSA estimated that this CMRR would cost \$375 million and could be completed in fiscal year 2008 (FY08).¹²

11. In February 2002, anticipating that NNSA would approve a "mission need" for CMRR, i.e., Critical Decision 0 (CD-0), defendants submitted their first CMRR line item request to Congress. CMRR funding was included in Project 03-D-103, "Project Engineering and Design (PED), Various Locations."¹³ This funding was for the entire CMRR project. This line item was to fund:

...preliminary design (Title I) and definitive design (Title II). The design effort will be sufficient to assure project feasibility, define the scope, provide detailed estimates of construction costs based on the approved design and working

⁹ For example, see Holmes, Rick, LANL CMRR Project Manager, CMRR Public Meeting, September 23, 2009, p. 20.

¹⁰ A contemporaneous article from the senior cognizant LANL manager provides insight into this strategy.

With sufficient budget, there are significant opportunities to reclaim the space occupied by excess process capacities. In PF-4, for example, which was originally designed as the nation's premier actinide research and development facility, a portion of the facility remains configured to separate and purify relatively large quantities of plutonium and other actinides.

Although these capabilities made significant contributions to the nation's defense in the early 1980s, it is unlikely that they will ever again be required to operate on that scale. Consolidation of the separations processes into a smaller footprint offers the potential to free up space that can then be used to support increasing programmatic workloads, emergent technologies, or waste reduction and treatment processes required to meet new regulatory standards.

Dr. Tim George, Nuclear Materials Technology Division Director, "Can Los Alamos Meet Its Future Nuclear Challenges? Balancing the Need to Expand Capabilities While Reducing Capacity," *Actinide Research Quarterly*, 1st Quarter 2001. <http://arq.lanl.gov/source/orgs/nmt/nmtdo/AQarchive/01spring/editorial.html>.

¹¹ Secretary of Energy Advisory Board (SEAB) Nuclear Weapons Complex Infrastructure Task Force, "Recommendations for the Nuclear Weapons Complex of the Future," July 13, 2005, p. H-6.

¹² LANL, "Comprehensive Site Plan 2001," p. 110.

¹³ NNSA FY2003 CBR, Weapons Activities, Project Engineering and Design (PED) Project 03-D-103 (no other page number).

drawings and specifications, and provide construction schedules, including procurements. The designs will be extensive enough to establish performance baselines and to support construction or long-lead procurements in the fiscal year in which line item construction funding is requested and appropriated.¹⁴

Defendants estimated that CMRR design would cost \$55 M and would be complete in FY2006, with construction to begin under a separate line item in FY2005.

12. Formal mission need (CD-0) for the CMRR was approved on July 16, 2002, so that when FY2003 began, defendants had initial funding and preliminary congressional authorization for the entire design process for CMRR as a whole, as well as internal DOE and NNSA authorization to proceed.

13. Defendants prepared a Notice of Intent (NOI) to prepare an EIS for the CMRR project, which was published on July 23, 2002. The preferred alternative consisted of “two or three” buildings at TA-55 to house existing CMR capabilities, with “extra space for future anticipated capabilities or activities requirements.” (CMRR EIS NOI, Cook Aff. Ex. 2) (The 2003 EIS offered alternatives with either one or two buildings.)¹⁵ Thus, by 2003 defendants had not yet decided upon the number of buildings or how CMRR functions would be allocated between them. Necessarily, if there were to be a separate Nuclear Facility (the “two-building” option), such a CMRR-NF would depend upon a nearby second building that housed labs, common utilities, and common offices. The second building need not be built to nuclear facility safety or security standards.

14. In February of 2003, anticipating a NEPA ROD that came in February 2004, NNSA requested CMRR funding from Congress for FY2004 and beyond in a new *construction line item*, 04-D-125, initially for “initiation of design *and construction* for the light

¹⁴ Id.

¹⁵ CMRR EIS, p. 1-7.

laboratory/office building...and initiation of design activities for the nuclear laboratory(s)” (*emphasis added*). (The 03-D-103 *design-only* line item was also continued.) In the budget request, defendants changed the method of project execution to “design-build” for both buildings, which accelerated management and financial commitment to the project. Defendants’ budget request shifted \$40.5 M in current and future design costs (90% of the unappropriated balance) from the *design only* line item (03-D-103) to the *design and construction* line item (04-D-125). Defendants sought funding for design-build contracts for the “light laboratory/office building” during *preliminary* design and for the “nuclear laboratory(s)” during *detailed* design. These submissions dated before defendants’ NEPA analysis and a full year before the ROD.

15. By February 2003 the scope and requirements for the CMRR project were far greater than envisioned in 2001 and included “60,000 gross square feet of Hazard Category II space [i.e. space for handling radionuclide amounts greater than 0.90 kg of Pu-239 or equivalent] for AC/MC [analytical chemistry and materials characterization], large vessel containment and processing, [nuclear] material storage, and contingency space; 60,000 gross square feet of Hazard Category III/IV space for AC/MC and contingency space; and 90,000 gross square feet for a light laboratory/office building.”¹⁶ The proposed total nuclear laboratory space [Hazard Categories II and III combined] was 120,000 sq. ft., many times the size and capability of the remaining total lab space in the existing CMR building (28,000 sq. ft).¹⁷ CMRR nuclear lab requirements were later scaled back to 22,500 sq. ft. of HazCat II space, plus a vault building and other nuclear space, the exact floor area of which has not been provided but which can be estimated at 16,000 sq. ft. (Mello Aff. #1, ¶23)

¹⁶ NNSA FY2004 CBR, p. 349

¹⁷ Dr. Tim George, “Can Los Alamos Meet Its Future Nuclear Challenges? Balancing the Need to Expand Capabilities While Reducing Capacity,” LANL *Actinide Research Quarterly*, 1st Quarter 2001.

16. NNSA received FY2004 appropriations of \$26.7 M for CMRR, of which \$9.9 M was appropriated for design and [initial] *construction* of the “light laboratory/office building.”¹⁸

17. The CMRR EIS was completed in November 2003, and a ROD was issued on February 12, 2004. This stated in part:

*NNSA has decided to implement the preferred alternative, alternative 1, which is the construction of a new CMR Replacement (CMRR) facility at LANL’s Technical Area 55 (TA-55). The new CMRR facility would include a single, above-ground, consolidated special nuclear material-capable, Hazard Category 2 laboratory building (construction option 3) with a separate administrative office and support functions building. The existing CMR building at LANL would be decontaminated, decommissioned, and demolished in its entirety (disposition option 3). The preferred alternative includes the construction of the new CMRR facility, and the movement of operations from the existing CMR building into the new CMRR facility, with operations expected to continue in the new facility over the next 50 years.*¹⁹ (emphasis added)

Thus, by February 2004, NNSA had not only sought and received appropriations for CMRR *construction* as well as design but also had formally concluded its NEPA analysis and declared its intent to “implement” – to complete design, to construct, and to operate for 50 years -- its preferred alternative. This ROD has never been withdrawn. Since 2004 NNSA has been implementing the selected CMRR project. Each year since, NNSA has sought and received funds from Congress to design, procure, and construct its chosen CMRR project alternative, each time explicitly referring to this ROD for justification.

18. In February 2004, NNSA submitted its budget request for CMRR funding for FY2005 and beyond, again using two line items. PED (Project Engineering and Design) funds in 03-D-103 were to be used for “preliminary design and engineering work for all project elements.” In the construction line item (04-D-125), “[t]he 2005 request for construction funds

¹⁸ NNSA FY2004 CBR, p. 349; NNSA FY2011 CBR, p. 225.

¹⁹ Federal Register, Vol. 69, No. 29, Thursday, February 12, 2004, 6967-6968.

will support continuation of the RLUOB and initiation of D-B [design-build] activities for Special Facility Equipment (SFE) – Gloveboxes.” “SFE” was a new CMRR project component in which NNSA would design and build specialized equipment for *both CMRR-NF and RLUOB*. NNSA was now funding its contractors to implement three parallel project components (RLUOB, SFE, and CMRR-NF), where much of the first two served the third, through two different line items.

19. As built, RLUOB is a three-part structure of 208,125 sq. ft. (not including the tunnel connecting RLUOB and CMRR-NF). It is a radiological, not a nuclear facility, so the total permissible radiological hazard is less than 8.4 grams of Pu-239 or equivalent.²⁰ Defendants have stated that RLUOB contains a radiological lab section in the first floor, with 26 reconfigurable modules totaling 19,500 sq. ft. RLUOB includes a central utility building (CUB) of 20,998 sq. ft., *servicing both CMRR buildings* with: heating and chilled water and a storage unit for ice; potable hot/cold water; electrical power; de-ionized water; compressed air and process gases (argon, helium, nitrogen, and others), and certain bulk chemicals. Offices in RLUOB accommodate 350 people working *in both buildings*. There is also: a personnel entrance control facility *servicing both buildings*; a training center which includes simulated laboratories *servicing all of TA-55*; a parking lot *for both buildings*; fuel oil storage and backup electrical generation *for both buildings*; a facility incident command center and emergency response capability *for nearby nuclear facilities*; and an operations center. Thus, RLUOB is primarily a support building for the Nuclear Facility.²¹ Clearly, significant parts of the construction completed so far, and significant

²⁰ Steve Fong, “CMRR Project Update,” March 3, 2010, slide 2.

²¹ Holmes, Rick, NNSA, CMRR mtg, September 23, 2009, p. 14; NNSA, FY2011 CBR, p. 228; NNSA, LANL Construction Forum, “Chemistry Metallurgy Research Replacement (CMRR) Construction,” LALP-08-065, June 16, 2010, handouts; CMRR Project brochure, LALP-06-006, Mar 9, 2006; NNSA CMRR mtg, LA-UR-08-1763, Mar 25, 2008, slide 9.

parts of the congressional appropriations and contractual obligations for it, support and constitute part of the *CMRR-NF*, not just the RLUOB, because the former cannot operate without them, and their current scale and configuration have no separate justification.

20. In May or June 2005 (defendants' statements conflict), DOE and NNSA approved CD-1 for entire CMRR project.²² DOE summarizes CD-1 as "Approve Alternative Selection and Cost Range: the selected alternative and approach is the optimum solution."²³ At this time the project has entered the "project execution phase."²⁴ CD-1 is the decision upon which all subsequent management action, including internal critical decisions and the external obligations (e.g., contracts, congressional authorizations and appropriations) which flow from them, are based. Unless CD-1 is rescinded in this case, defendants' regulations do not allow them to consider any alternatives to the project. In general, contracts consequent to CD-1 may represent a further impediment. DOE's "bureaucratic momentum" (often the bane of objective NEPA analysis) takes on a highly structured and rigid form in the milestones used to fund and manage defendants' large construction projects, such as NEPA RODs and DOE critical decisions.

21. On October 21, 2005, NNSA and DOE approved CD-2/3 for RLUOB. CD-2/3 is the "design-build" combination of CD-2 ("Approve Performance Baseline") and CD-3

²² NNSA FY2010 CBR, Weapons Activities, RTBF, 04-D-125, CMRR Project, May 18, 2005, p. 215; and NNSA FY2009 CBR, Weapons Activities, RTBF, 04-D-125, CMRR Project, June 17, 2005, p. 298.

²³ DOE Order 413.3B, p. A-2.

²⁴ DOE Order 413.3B p. A-6. Initiation of the project "execution phase" at CD-1 is the same under DOE Order 413.3A (in place at the time) and 413.3B (the same order as revised on November 29, 2010).

Interestingly, under the order *as revised during this litigation*, NEPA RODs may be issued at any time prior to CD-3 ("Approve Start of Construction") instead of much earlier as in 413.3A, prior to the beginning of final design, CD-2, even though "alternative selection" must be complete at CD-1 in both versions. This change, which would largely render NEPA moot as a planning tool in DOE, is convenient to defendants, because, contra Council on Environmental Quality (CEQ) regulations requiring NEPA analysis early in a project (40 CFR 1501.2, "Apply NEPA early in the process"), completion of the NEPA process need only come far after DOE is fully committed to a project.

The other major applicable DOE order, Order 430.1-1, "Life Cycle Asset Management," requires completion of all NEPA analyses prior to preliminary design and CD-1. See Mello Affidavit #1, para. 68.

(“Approve Start of Construction/Execution”). DOE describes CD-3 as follows: “CD-3 is a continuation of the execution phase. The project is ready to *complete* all construction, implementation, procurement, fabrication, acceptance, and turnover activities.”²⁵ (*emphasis added*).

22. In November, 2005 a design-build contract for RLUOB was awarded to Austin Commercial Contractors LP. RLUOB groundbreaking was on January 12, 2006.

23. In 2007, the SFE component of the project was renamed the “RLUOB Equipment Installation” (REI). REI “design-build” CD-2/3 occurred on July 17, 2009.

24. The LANL Site-Wide Environmental Impact Statement (SWEIS) of May 2008 and the Complex Transformation Supplemental Programmatic Environmental Impact Statement (CTSPEIS) of October 2008 did not further analyze the CMRR project, but rather incorporated the analysis of the 2003 CMRR EIS by reference.

25. However, by the time these analyses were completed, defendants had, for at least a year, highly detailed knowledge of “significantly” increased seismic hazard at LANL.²⁶ Defendants’ decision to suppress this documented knowledge and keep it out of their NEPA process has been very costly and very damaging to the CMRR-NF project and to the taxpayer, because LANL’s nuclear and high-hazard facilities are still not in compliance with federal standards. Yet the successful operation of CMRR-NF is predicated not just on success in the CMRR-NF but also in bringing a variety of related existing facilities at LANL up to code requirements. Given the formal agency commitments to that date, neither the SWEIS nor the CTSPEIS could have reconsidered CMRR-NF without: a) revising the 2004 CMRR ROD; b) revising all critical decisions past CD-0 for the project, *i.e.* for RLUOB and SFE; and halting at

²⁵ DOE Order 413.3B p. A-12.

²⁶ LANL May 25, 2007 Probabilistic Seismic Hazard Assessment (PSHA), Mello Aff. #1 ¶16, Ref. 1.

least some of the RLUOB investments designed to support CMRR-NF, which are prejudicial to any choice about whether or not to build CMRR-NF.

B. Certain statements in the declarations of Mr. Herman LeDoux and Mr. Roger Snyder require clarification to avoid misleading the court. In particular, the relief sought by plaintiff in no way affects national security.

26. Some response is necessary to the declarations submitted by Mr. LeDoux and Mr. Snyder. In ¶3 of his declaration Mr. LeDoux states that construction of the CMRR-NF "building" has not begun. In fact, the CMRR-NF site has been partially excavated, and 90,000 cubic yards of earth have been removed. A parking lot is being built. The whole area is "busy with construction," much of it in preparation for CMRR-NF, by far the largest project in the "Pajarito Corridor Integration Project."

Pajarito road busy with construction - September 2, 2010

Have you ridden down Pajarito Road lately? It's a bustle of construction activity. According to Tom McKinney, Associate Director for Project Management and Site Services, it's only going to get busier! Based on anticipated funding, major construction will continue along the stretch of Pajarito Road between TA-48 and TA-46 from 2010 to 2020, enhancing LANL's future research capability and missions, and remediating environmental issues from past missions. The good news is that construction projects will provide growth and prosperity for LANL, our local community, and the northern New Mexico economy. Funding for construction and development also means an endorsement at the highest levels for our national security mission. The bad news is that it will be inconvenient. The introduction of large-scale construction will bring dramatic changes to area infrastructure which, in turn, will affect normal operations, including traffic flow, utilities, parking, safety and security, and recreational activities in the area. To manage this venture, the Pajarito Corridor Integration Project has been developed and personnel have begun coordinating the interface, with affected parties, between construction activity and ongoing operations, and a real-time, master integrated schedule is in place to identify, record, and deal with project issues as they arise.²⁷

Moreover, the statement is misleading in context. Construction *in preparation for* the CMRR-

²⁷ LANL News Archive: LANL Construction: Pajarito Corridor: LANL, <http://www.lanl.gov/construction/news.shtml> [1/9/2011 2:26:14 PM]

NF building actually began in 2006 and is continuing (see ¶¶ 19 -22), and approximately \$319 million has been appropriated to the RLUOB structure and its specialized equipment, all of which serve CMRR-NF.²⁸

27. Clearly, significant environmental impacts and irreversible commitments of resources have ensued. *Additional* construction with *additional* impacts, specifically in support of the CMRR-NF building and its construction, is poised to begin. Steve Fong, CMRR Project Manager, stated at a March 3, 2010 public meeting that the "infrastructure package [baseline design] is done," i.e. ready for design-build contracting under the design-build procurement strategy being used.²⁹ The "infrastructure package" referred to consists of dozens of separate construction projects in the first phase of the CMRR-NF building, which will cause extensive environmental impacts over approximately 94 acres. (Mello Aff. #2 ¶ 12). Defendants have stated construction will not occur until after the SEIS, or after 2011. Construction is now slated for some time after the proposed SEIS and its ROD, i.e. in or after June 2011. (Cook Aff. ¶25)

28. Also in ¶3, Mr. LeDoux claims "[t]he CMRR EIS analyzed the potential environmental impacts associated with replacing the existing Chemistry and Metallurgy Research (CMR) Building, as well as the potential environmental impacts associated with the reasonable alternatives to replacing the CMR building." (Mr. LeDoux ¶3) This is not true. The proposed action and its impacts have turned out to be very different than those portrayed in the 2003 EIS. The 2003 EIS was simply, and for whatever reasons, false. Now NNSA has rejected all the alternatives presented in the CMRR EIS, and none of them are reasonable.

29. In ¶3 Mr. LeDoux says that the EIS refers to constructing "two new buildings in Technical Area-55." These were two very specific buildings of a certain size and general design.

²⁸ DOE CBR FY2011 pp. 219, 221.

²⁹ NNSA CMRR Public Meeting, LA-UR 10-02173, Mar 3, 2010, p. 20. (Mello Aff1, Par 44)

These were not *any* two buildings and certainly were not buildings of the size and scope of the present CMRR project.

30. In ¶4 Mr. LeDoux incorrectly states that the CMRR-NF described in the 2004 ROD was a "below ground building." In fact the ROD stated the CMRR project "would include a single, *above-ground*, consolidated special nuclear material-capable, Hazard Category 2 laboratory building." (*emphasis added*) (CMRR EIS NOI, Cook Aff. Ex. 2)

31. In ¶5 Mr. LeDoux incorrectly states that the environmental impacts listed in the CMRR EIS were "analyzed" in the May 2008 SWEIS and October 2008 CTSPEIS. The CMRR impacts mentioned in the SWEIS and CTSPEIS were not *analyzed*, but *compiled*, or *packaged* – imported unchanged from the CMRR EIS, even though by this time highly-significant new seismic information was available, which also subsequently changed the CMRR project dramatically. (Fallacious) CMRR impacts were an *input*, not an *output*, of those analyses. Those expected impacts were impacts of a much smaller project than what is currently planned.

32. In ¶6 Mr. LeDoux states that the Supplemental Environmental Impact Statement (SEIS) will analyze the "changes" to the CMRR-NF "and their reasonable alternatives." No claim of objectivity is made and none should be assumed, for the reasons list below in Section E (¶¶92 through 99). Nor is there any mention of defendants' continuing implementation of *the preferred alternative alone*, while preparing the SEIS. Unbiased study of alternatives cannot occur in the atmosphere of commitment to construction.

33. Both Mr. LeDoux and the SEIS NOI state that "changes" will be analyzed: "Over time...some aspects of the CMRR–NF Project have changed from what was foreseen when the CMRR EIS was prepared. The potential environmental impacts of these proposed *changes* will

be analyzed in the CMRR–NF SEIS.”³⁰ There is no mention of a *comprehensive* analysis of project impacts, including what has *changed* (construction impacts, certainly) and what defendants have claimed has *not* changed, presumably during operations. In fact both new information since the 2003 EIS and changes in the project make the CMRR EIS obsolete in *every* way. A SEIS limited to analyzing “changes” in the project cannot capture environmental impacts.

34. In ¶7 Mr. LeDoux claims that the RLUOB construction has been finished. While the RLUOB building is built, it is far from ready for use. As of October 1, 2010, about 3 years of equipment manufacture and installation lay ahead, for which additional appropriations of \$108 million will be sought.³¹

35. In ¶7 Mr. LeDoux discusses CMRR-NF space which pertains to “chemistry operations and materials characterization,” leaving the impression that the total programmatic space within the building has not changed. In fact NNSA has never provided accurate totals of programmatic space within CMRR-NF. Such space includes not only AC/MC but also vault space and space for large vessel handling.

36. In ¶9 Mr. LeDoux refers to an “iterative process” for designing CMRR-NF. This is another way of saying that the project incorporated erroneous assumptions, had to be completely redesigned, is ending up much bigger than before. When this redesign occurred, reexamination under NEPA should have been ordered, and CD-1 rescinded to make that analysis possible.

37. In ¶10 Mr. LeDoux misleadingly states that the 2004 ROD chose a CMRR-NF with “both above and below ground components.” See ¶30, *supra*.

³⁰ CMRR SEIS NOI, (see P's Re-MTD Ex 21)

³¹ DOE CBR FY2011, p. 221.

38. In ¶¶ 11 and 12 Mr. LeDoux offers some reasons why the gross square footage of CMRR-NF has doubled since the 2003 EIS. He omits to say that the internal height of the building, therefore its volume and the total number of floors in the building, are greater than before.³² It is a significantly bigger (and far more complex, expensive, and heavily-built) building.

39. In ¶13 Mr. LeDoux discusses seismically-motivated thickening of the CMRR-NF structure. According to Timothy Dwyer, chief of the technical staff of the Defense Nuclear Facility Safety Board (DNFSB), new technical issues have recently arisen in relation to seismic design of CMRR-NF.³³ These have not been solved.

40. In ¶14 Mr. LeDoux admits that defendants expect that continuing CMRR-NF design during the SEIS process will provide “important information for the analysis in the SEIS needed to understand and address uncertainties *associated with the construction of the CMRR-NF.*” He says nothing about uncertainties associated with alternatives *other than* CMRR-NF. Continuing CMRR-NF design during the SEIS would predetermine the outcome.

41. The refinements mentioned by Mr. LeDoux in ¶14a-d are irrelevant to any choice between primary alternatives to the CMRR-NF, i.e. alternatives which would not build CMRR-NF, a choice NNSA purports to contemplate in its SEIS. They refer, at most, to secondary alternatives, i.e. alternative construction methods for executing the primary alternative.

42. In ¶¶ 15 through 19 Mr. LeDoux discusses defendants’ employment and contracting hardship, should the project be enjoined. Some general observations can be made:

³² Greater interior height for the purpose of adding safety equipment: Tom Whitacre, NNSA CMRR project staff, personal communication October 20, 2010. Labs and equipment must rest on floors, hence more floors. See also NNSA CMRR “Supplement Analysis for the Chemistry and Metallurgy Research Building Replacement (CMRR) Project,” p. 6: 2003: 2 laboratory stories mentioned; 2010: 4.5 “levels” mentioned. Building depth is now 125-140 ft. below grade (original or as now excavated?); formerly less than 50 ft below grade. The building is not greatly changed in height above ground but extends much deeper; floors must be added to use the greater volume.

³³ Telephone conference with Timothy Dwyer, DNFSB, January 10, 2011.

- a. First, the alleged hardship is an aspect of the defendants' attachment to a chosen course resulting from violations of NEPA. This perception of harm, if a course must change, is part of what predetermines outcomes. The purpose of design is to eliminate the remaining choices.
- b. Second, the degree of alleged harm bears some proportion to the NEPA violation itself. The more NNSA has illegally invested in its massive CMRR-NF prior to NEPA analysis, the more NNSA has to lose should a break in momentum occur or different alternative be chosen.
- c. Third, should the present alternative be found unsound, what today appear to be "costs" from the perspective of a line manager like Mr. LeDoux actually will be benefits and savings. There is no "cost" or "harm" in stopping wasteful government spending. All the "costs" mentioned are relative to a hypothetical continuation of the project.

43. The CMRR-NF project team consists of federal employees at NNSA, management and operating contractor employees at LANS, which manages LANL and this project for NNSA and DOE, and other contractors and subcontractors. Federal employees are by far the smallest of these groups and the least affected. NNSA, subject to congressional direction, decides the priorities of LANS. NNSA could easily task LANS to study alternatives to CMRR-NF, within current management and contract vehicles. Continuing resolutions (including the one in place right now) provide especially wide programming latitude. NNSA has a large backlog of infrastructure and safety deficiencies at LANL, which LANS is only slowly addressing. Building PF-4 is of particular concern.³⁴ LANL as a whole has been operating under a

³⁴ See for example Todd Jacobsen, "Defense Board Raises Concerns about NNSA Safety Changes: DNFSB Worried that Ruling at Los Alamos National Laboratory Sets Precedent," *Nuclear Weapons & Materials Monitor* March 22, 2010. This article discusses only one facility. There are serious problems at other nuclear facilities and seismic safety problems in many of LANL's older buildings.

Justification for Continued Operations (JCO) for the past three years because it's nuclear and other high-hazard facilities cannot yet all be certified as seismically safe. Important non-nuclear facilities such as the Sigma Complex are also not seismically qualified. Compliance at PF-4 alone is expected to take many years and hundreds of millions of dollars.³⁵ In short, there a number of critical infrastructure and safety upgrades needed at LANL, to which end the talents of the individuals in question could be directed, apart from conducting business case and engineering analyses of the cost and management feasibility of all reasonable alternatives to CMRR-NF.

44. In ¶2 Mr. Snyder claims that the information he provides is based on “his personal knowledge and information provided to me during the performance of my official duties.” Mr. Snyder’s experience and responsibilities as stated do not include national security policy issues.

45. In ¶4 Mr. Snyder claims the capabilities planned for CMRR-NF “currently reside” in the CMR building. This is incorrect. The CMRR-NF will have extensive capabilities not present in the CMR building, such as a six metric ton vault for nuclear materials and the capability to process and variously manipulate quantities of plutonium that exceed current CMR safety limits a hundredfold. The existing capabilities of LANL, including those residing in the CMR building, have been adequate to support LANL’s missions. The proposed CMRR-NF, especially as combined with RLUOB, will far exceed CMR capabilities. (There are no plans to replace the CMR Wing 9 hot cell capability with anything comparable in CMRR-NF.) There are also new efficiencies, which translate into production capacities, created by consolidating PF-4, RLUOB, and CMRR-NF at one site, connected by short tunnels instead of roads.

³⁵ Id.

46. In ¶5 Mr. Snyder claims CMRR-NF capabilities are “necessary” for all operations involving special nuclear materials. Yet LANL is not significantly impaired today without those “necessary” CMRR-NF capabilities, which will require another 12 years. CMRR-NF is primarily justified by missions which have yet to be created or assigned and may never be – primarily, actual pit production in quantity. CMRR-NF would create the capacity for those future hypothetical missions. Pit production in quantity – which is only necessary if existing warheads are to be replaced, requires warhead redesign and certification of performance, safety, and reliability, a task which has never been attempted by the U.S. without nuclear testing, something many experts believe impossible – has been stigmatized by national policy.³⁶ While there are serious seismic safety problems at CMR, PF-4 and other key LANL facilities, LANL’s ability to complete its assigned work has not been significantly affected by these limitations. There is no record in congressional debate, the trade press, LANS performance evaluations, or anywhere else of LANL being unable to perform its work, which if true would command overt attention from many parties. For example, LANL has been “manufacturing power system components for long range space missions” for decades without CMRR-NF.³⁷ Mr. Snyder also refers to CMRR-NF’s necessary future role in nuclear forensics, but NNSA already possesses other facilities and laboratories already capable of carrying out this mission which are already engaged in it. This mission centers primarily on radiochemistry, which does not require a nuclear facility. Nevertheless large material samples are handled at all NNSA weapons complex sites except Pantex, and additional DOE and DoD sites as well. In short, key driving missions

³⁶ White House, April 2010 Nuclear Posture Review p. ; (Mello Aff. #1 ¶19, ref. 4)

³⁷ See for example LANL, Jim Danneskiold, “Lab technology helps power Rover on Mars,” February 9, 2004.

NNSA has proposed removing that mission from LANL as part of a nationwide consolidation of the material in question (Pu-238). Should that occur, an additional 15,000 or so sq. ft. of reconfigurable Hazard Category II nuclear processing and laboratory space would become available to conduct many of the missions currently envisioned for CMRR-NF.

for the proposed CMRR-NF are bureaucratic *aspirations*, some of which are technically controversial, not national *policy* or *requirements*.

47. At bottom, Mr. Snyder is saying that there are no alternatives to constructing the \$5-billion-plus CMRR-NF. He is saying CMRR-NF is an *absolute* national imperative, without which the security of the U.S. will suffer greatly, and therefore it must be built. So saying, Mr. Snyder contradicts NNSA claims to be analyzing reasonable alternatives under NEPA. The notion that there are no alternatives to the proposed action despite a *10-fold* cost increase, beggars belief and is anathema to NEPA. Possible reasonable alternatives are discussed in section C.

48. In ¶6 Mr. Snyder claims pit “fabrication” will not be carried out in the CMRR-NF. He does not explain how he knows what will occur in the CMRR-NF a decade or two from now, especially given the touted “hotel concept” for adding unstated future missions.³⁸ In any case, the primary and nearly the whole justification of CMRR-NF is to facilitate pit production and certification, a justification that has been repeated to me over the years by congressional staff, other national security analysts, and senior managers at NNSA headquarters. Many people in Congress and the administration believe CMRR-NF has no coherent *raison d’etre* without pit production in quantity, to replace pits currently deployed, a mission which Congress has so far rejected³⁹. Current administration policy (the Nuclear *Posture Review* of April 2010) stigmatizes the production of replacement pits.

In any decision to proceed to engineering development for warhead LEPs, the United States will give strong preference to options for refurbishment or reuse. Replacement of nuclear components would be undertaken only if critical Stockpile Management Program goals could not otherwise be met, and if

³⁸ Mot. Prelim. Injunction p. 5, Mello Aff. #1, par 17,

³⁹ This is despite strenuous efforts by NNSA during the previous administration under the proposed “Reliable Replacement Warhead” (RRW) rubric.

specifically authorized by the President and approved by Congress. (Mello Aff. #1 ¶19, ref. 4)

Thus the House Appropriations Committee wrote in 2007:

...[t]he 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.⁴⁰

No such mission has been approved. Given the absence of such a mission, that Committee proposed zero funding for the CMRR project *as a whole* for FY2008, including RLUOB (as they also had done for FYs 2004 and 2006.) In fiscal years 2005 and 2007 that committee proposed cuts of 58% and 89% from budget requests, respectively, recommending only pre-conceptual cost estimating and long-term planning – tasks consistent with reevaluating alternatives. Thus for five years, one of the two committees in Congress that is responsible for funding NNSA rejected the project as presented.

49. Further evidence of CMRR-NF's primary mission is easily found. In May of 2007 NNSA wrote to the Senate Appropriations Energy and Water Development Subcommittee that CMRR-NF would multiply LANL's pit production capacity by a factor of five, from "10 to 15" to "50-80 pits per year."

Without the CMRR, the long-term pit production capacity at LANL is limited to approximately 10 to 15 pits per year, based on limited vault space and multiple mission requirements. The actual throughput that would be achieved likely would be lower owing to the inherent unreliability of the CMR. LANL provides the Nation's sole pit production capability until a new consolidated plutonium center is available. Although the limited LANL capability does sustain a certain level of production capability, the 10 pits per year rate would not support meaningful stockpile transformation, or provide a capability to respond to a significant technical issue in the current stockpile. *If the NF were constructed, and if the existing plutonium facilities at LANL were dedicated to pit manufacturing, a pit production rate of approximately 50-80 pits per year might be sustainable for*

⁴⁰ House Report 110-185, June 11, 2007, p. 105, <http://thomas.loc.gov/cgi-bin/bdquery/z?d110:H.R.2641:>

*some duration.*⁴¹ (*emphasis added*)

50. Still further, in its November 2007 budget “passback” guidance to NNSA, the Office of Management and Budget (OMB) wrote unambiguously regarding CMRR’s purpose, associating it with the now-defunct RRW program:

NNSA Funding for Nuclear Weapons’ Cores: The DOE/NNSA is requesting funding in FY 2009 for the Chemistry and Metallurgy Research Replacement Project. *This facility will be used to manufacture the central core of nuclear weapons, known as the “pit.”* The DOE/NNSA has assumed a future production rate of 50 – 80 pits per year at Los Alamos National Laboratory, New Mexico, consistent with their preferred alternative for complex transformation. *Currently there is no formal agreement between DOE and DOD on production requirements, and thus no firm basis for setting a facility production capacity requirement. This requirement is the major cost driver for the facility.*

Therefore, DOD and DOE should collaborate on an analysis that determines what level of production will be sufficient to meet requirements for pit replacement in the stockpile, whether for existing designs or for the future Reliable Replacement Warhead (RRW). This analysis should also clarify the number of RRW variants that will be produced. DOD and DOE should provide this analysis to OMB not later than July 2008.⁴² (*emphasis added*)

51. Two years ago, the House Appropriations Committee voted funds for sustainment of the PF-4 pit production line, while acknowledging the lack of need for pit production:

The Committee also accepts, with some skepticism, NNSA’s contention that preservation of plutonium capability requires the actual manufacture of plutonium pits, although the W88 pits now being produced are for a Cold War weapon poorly suited to the 21st Century threat. Under present plans, the production run of W88 pits will be completed in approximately three years, leaving no more pits to be produced to sustain the plutonium capability. Accordingly, the Committee recommends \$123,201,000 for Plutonium Infrastructure Sustainment, \$26,000,000 below the request in order to produce W88 pits at a minimum rate and extend plutonium capability, pending resolution of nuclear strategy issues. (House Report 111-203, July 13, 2009, <http://thomas.loc.gov/cgi-bin/bdquery/z?d111:h.3183:>)

52. Deployed pits are expected to last at least 85 years from manufacture. “Most

⁴¹ NNSA, “Chemistry and Metallurgy Research Building Replacement Project, May 2007” at <http://www.doeal.gov/SWEIS/OtherDocuments/427%20NNSA%202007%20CMR%20senate%20report.pdf>.

⁴² OMB, passback guidance to NNSA for its FY2009 budget request.

primary types have credible minimum lifetimes in excess of 100 years as regards aging of plutonium; those with assessed lifetimes of 100 years or less have clear mitigation paths that are proposed and/or being implemented.” JASON, “Pit Lifetime,” JSR-06-35, at http://lasg.org/JASONS_report_pit_aging.pdf.

53. Nearly all deployed pits were made in 1980 or after. (See also, von Hippel Aff. ¶5) The stockpile pit age profile could be reduced without new production by using planned dismantlements. The remaining pits would have a greater life expectancy than the proposed CMRR-NF with its expected 50-year life. Pit life exceeds by decades the lead time required for construction of additional pit production facilities like CMRR-NF.

54. There have been highly divergent estimates of LANL’s *current* pit production capacity, ranging from as low as “10-15” (as in par X above) to as high as 200. Mr. Jonathan Gill, Associate Director [x] of the Government Accountability Office (GAO), said in May 2010 that one can find estimates from NNSA and DOE of LANL’s current capacity that vary by a factor of ten, which accords with my experience as well. The capacity depends on management commitment, space allocation, pit design, and other factors, in addition to the variously-stated “capacities” of the TA-55 complex with or without CMRR-NF. A Secretary of Energy Advisory Board committee including former senior managers of the nuclear weapons complex has written:

...the manufacturing operation at TA-55 is extremely inefficient when compared with any conventional manufacturing operation. There is little evidence of modern manufacturing techniques being employed....Modern manufacturing techniques...if applied rigorously could yield unprecedented reductions in TA-55 pit manufacturing costs and cycle time.

The enormous investment made in the TA-55 facility has not yielded anywhere near the productivity levels this facility should be capable of attaining. The process is operated with little sense of urgency. It appears that each manufacturing step is “an event” attracting numerous witnesses and visitors. The process of actually building a pit seems to be a secondary mission of the facility, not the primary focus.

At every phase of operation, there appears to be numerous opportunities to

“lean-out” the operation...the vast majority of the time the plutonium material, raw or in the process of becoming a pit, is waiting to be inspected, to be tested, waiting for test results, etc. This is an incredible waste of time...Fundamentally, the pit facility produces one product, yet it appears that every pit produced is a “hand crafted individual object”. This method of production yields process inefficiencies in every operation. Additionally, process automation at several steps of this process would be quite valuable. Currently available CNC machining centers, modified for the unique safety hazards, would yield a wealth of productivity gains.

From a modern industry standpoint, world class productivity, quality, and safety can all be attained at the TA-55 facility by thorough and rigorous analysis and hard work on the production floor. The cursory analysis of the TA-55 facility yields a ratio of value-added to non-value added work of perhaps 1:20 or much worse. This indicates a tremendous opportunity for improvement. The available productive capacity of this plant is being wasted by inefficient utilization of plant equipment and personnel.

In conclusion, the TA-55 facility is an expensive national asset, which has the opportunity to be a dramatically more effective and efficient facility if operated as a modern production facility, utilizing available automation and world class operations management techniques.⁴³

Additional capacity could be added by moving from one to two shifts at PF-4. If this is not feasible, this points to fundamental problems which CMRR-NF will not solve.

55. In ¶7 Mr. Snyder states that CMRR-NF is “predicated” upon an approved mission need. However, DOE expressly forbids constructing a mission need that is specific for any building, including CMRR-NF. CMRR-NF must be *one alternative* for filling an identified need. DOE Order (413.3B) describes “mission need”:

CD-0, Approve Mission Need.

The Initiation Phase begins with the identification of a mission-related need. A Program Office will identify a credible performance gap between its current capabilities and capacities and those required to achieve the goals articulated in its strategic plan. The Mission Need Statement (MNS) is the translation of this gap into functional requirements that cannot be met through other than material means. It should describe the general parameters of the solution and why it is critical to the overall accomplishment of the Department’s mission, including the benefits to be realized. *The mission need is independent of a particular solution,*

⁴³ Secretary of Energy Advisory Board Nuclear Weapons Complex Infrastructure Task Force, “Recommendations for the Nuclear Weapons Complex of the Future,” July 13, 2005, p. H-6.

and should not be defined by equipment, facility, technological solution, or physical end-item. This approach allows the Program Office the flexibility to explore a variety of solutions and not limit potential solutions (refer to DOE G 413.3-17). Table 2.0 lists the requirements needed to attain CD-0.⁴⁴ (emphasis added)

56. In ¶8 Mr. Snyder alleges the 2003 EIS was based upon “the best available conceptual information at that time.” But it did not produce an accurate EIS. The 2003 EIS, for one thing, did not disclose or apply information NNSA clearly possessed regarding seismicity and the unstable sediments present beneath the site. The geology and seismicity have been the subject of decades of investigation by dozens of staff scientists and numerous expert consultants. Yet the 2003 EIS relied on crude national earthquake data and an obsolete 1995 Probabilistic Seismic Hazard Assessment (PSHA) to predict ground accelerations at TA-55.⁴⁵ Our 1997 memorandum summarized the inadequacies of the 1995 PSHA and was provided to defendants at the time. This information led to a 1998 settlement, requiring further seismic investigations at LANL. This inadequacy and the use of irrelevant earthquake data from San Francisco and other textual evidence strongly suggest that this section of the CMRR EIS was written to deflect critics rather than objectively analyze. Likewise the presence of unconsolidated sediments beneath TA-55 has long been known to NNSA. Its generally poor structural (and hence seismic) properties are obvious from local landforms; this layer does not have enough integrity to create a cliff.

57. In ¶10 Mr. Snyder discusses the semi-yearly public meetings by defendants to discuss the CMRR project. We have been at all (or nearly all) of these meetings. They have nothing to do with NEPA or alternatives to the project, and have touched only cursorily upon environmental impacts. They have neither provided comprehensive, detailed information upon

⁴⁴ DOE O 413.3B, p. A-4

⁴⁵ CMRR EIS pp. 3-24, 25.

which professional, detailed, environmental comments could be based nor any chance for meaningful comment.

58. In ¶11 Mr. Snyder omits to mention that Pajarito Road is used recreationally by badge-holders and is used by badge-holders and their families and friends as a driving route to schools and businesses in downtown Los Alamos from the community of White Rock. It is a bicycle commuter route, as Ms. Benson's affidavit mentions.

59. In ¶12 Mr. Snyder alleges that construction will not be authorized or executed during the SEIS period. Plaintiffs have requested a moratorium on investment in CMRR-NF, not during the pendency of the SEIS, but until trial and judgment. Defendants intend to re-start CMRR construction in June, if such construction is not underway. Mr. Snyder does not say that, even before, defendants will not continue to invest in CMRR-NF, prejudicing any future NEPA analysis.

60. In ¶13 Mr. Snyder says that defendants are under no obligation to act on bid solicitations. This does not however mean that "the taxpayer will not incur additional cost should the SEIS and ROD not support furtherance of the preferred alternative." Neither is it true for the many solicitations which have led to contracts, including the M&O contract. If the present work on CMRR-NF continues until the SEIS ROD, and that ROD does not support the preferred alternative, most of the work done between now and the SEIS ROD will have been wasted.

61. In ¶14 Mr. Snyder alleges that final design contracts have been deferred, but provides no evidence for this. He then contradicts his statement, saying "[c]ertain design efforts are continuing as a means to resolve unknowns..." Continuation of design during SEIS preparation will only skew the result of the SEIS process. Mr. Snyder says the design will only

advance by 15% during this period. It is roughly 50% complete now. By June, when the SEIS is expected to be complete, the design will be over half complete – enough, according to defendants, to begin construction.

62. In ¶15 Mr. Snyder discusses performance baseline, which is still years away for this project. In other words, Congress will get a reliable cost estimate only after construction is well under way and close to \$1 billion has been allocated to the CMRR project. Congress will then have little choice but to continue. Such a course turns proper project management on its head. Defendants' bad project management, including abuse of project baselines, was the subject of a 4-year study by a National Research Council (NRC) committee, beginning in 1999. In 1999 the committee noted that in 2001 DOE would implement “[a]n agreement between Congress and DOE’s chief financial officer for establishing baselines at the 20- to 30-percent design stage.”⁴⁶ It is a serious fault and a sign of future difficulties that a baseline – a fundamental tool for managing large projects – is not available now.

63. In ¶16 Mr. Snyder avers that the excavation of 90,000 cubic yards of earth at the CMRR-NF site was motivated only by a desire to to understand the site better. He does not say that adequate geologic information could not have been provided more easily. He states that the excavation “confirmed the suitability of the site for CMRR-NF,” but three years later, NNSA said that seismic concerns, as they relate to certain nuclear safety standards might make construction of CMRR-NF infeasible. (Mello Aff. #1 ¶16 ref. 2, Energy Daily).

64. In ¶17 Mr. Snyder discusses connected actions in the Pajarito Corridor. All the projects he mentions have some independent function, but at the same time the *scale* or *design* of

⁴⁶ NRC Committee to Assess the Policies and Practices of the Department of Energy to Design, Manage, and Procure Environmental Restoration, Waste Management, and Other Construction Projects: Improving Project Management in the Department of Energy, *Improving Project Management in the Department of Energy*, 1999, p. 5

each one depends on the presence and the size of CMRR-NF, with which they are planned as an integrated system. Large portions of the Nuclear Materials Safeguards and Security Upgrades (NMSSUP) project are necessitated *only* by CMRR-NF. Thus, Plaintiffs have requested that any preliminary injunction include the relevant parts of NMSSUP. Some of these projects have not even been revealed to the public, *e.g.* the huge nuclear waste disposal pits in TA-43 and TA-63 that are part of defendants' planned "Consolidated Waste Capability." The entire waste complex, as well as the Radioactive Liquid Waste Treatment Facility (RLWTF) is clearly being sized to include the wastes from CMRR-NF. It is not true that these projects have been "appropriated addressed" under NEPA.⁴⁷

65. In ¶18 Mr. Snyder discusses the TA-55 Reinvestment Project ("TRP"), which consists of improvements to PF-4. This project is clearly being designed and built with CMRR-NF in mind. Were CMRR-NF not being built, the TRP would be designed and built quite differently. A more extensive TRP is a very realistic alternative and element of other alternatives to CMRR-NF, one which NNSA chose in its far smaller and cheaper 2001 CMRR plan.

66. In ¶19 Mr. Snyder discusses the NMSSUP. He omits to mention that this project includes moving a 600-foot section of extremely expensive security perimeter *twice*, once to make the CMRR-NF excavation accessible for trucks and concrete, and a second time to move it back to its original location after construction. (Mello Aff. #2 ¶7)

67. In ¶20 Mr. Snyder discusses the RLWTF. As noted previously RLWTF is being designed to handle flows from CMRR-NF.

68. In ¶21 Mr. Snyder alleges that there is a "fence to fence" cleanup of LANL going on. Here Mr. Snyder invites the reader to share in the special meaning of "cleanup" used

⁴⁷ NNSA, *2011 Biennial Plan and Budget Assessment on the Modernization and Refurbishment of the Nuclear Security Complex*, p. 28, Figure D-11: "Site overlay of the Consolidated Waste Capability for addressing TRU, Low Level and Mixed Low Level radioactive waste." (see Mello Aff 2, Par 12a)

in defendants' bureaucracy. There is a Consent Order as mentioned, and it is supposed to be fully executed by 2015, although the probability of that occurring is slim. But this process will not result in "cleanup" as the term is normally used. In most cases the contamination will simply be covered over, using the crushed tuff from the CMRR-NF excavation. NNSA also intends to dispose of millions of pounds of additional nuclear waste, including putting it in the aforementioned "pits." The CMRR-NF will generate large volumes of wastes, and defendants have said they will dispose of these wastes at LANL and elsewhere.⁴⁸

69. In ¶22 Mr. Snyder alleges that none of the ongoing construction at TA-55 is connected to CMRR-NF. Please see Section A and ¶66 above regarding NMSSUP.

70. In ¶24 Mr. Snyder discusses light pollution. The light pollution has been a source of complaints already. The southern portion of NMSSUP, some of which is specifically for CMRR-NF, will also generate light pollution, as will construction, which sometimes must continue at night. This light pollution will affect wildlife, as noted in my second affidavit.

71. In ¶25 Mr. Snyder calls CMRR-NF a "critical component" of ensuring "a safe, secure, and effective nuclear arsenal over the long term." If this is his view, he has clearly decided that any environmental impacts are unimportant in comparison, so that he has predetermined the outcome of NEPA analysis. He cites the Nuclear Posture Review (NPR), which calls for completing CMRR-NF, but it does not propose omitting objective, prior NEPA analysis, or say that the project cannot be paused for that purpose. Likewise, the Senate Armed Services Committee believes CMRR-NF is "essential" but still "has many unresolved issues including the appropriate size of the facility." Those concerns also include the lack of reliable

⁴⁸ CMRR EIS pp. S-38, 3-57,58.

cost estimates, the lack of any project baseline, the need for strict adherence to DOE Order 413, and the division of the project into multiple sub-projects.⁴⁹

72. In ¶26 Mr. Snyder discusses the endorsement of CMRR-NF by the 2009 “America’s Strategic Posture” report. It is often called the “Perry Commission” after its Chairman, William Perry, who is a LANS director. Another key participant in that study, Richard Mies, is also a LANS director. These are material conflicts of interest. This was not a government-authored report. The report says that the CMR building “is maintained in a safe and secure manner only at a high cost.” This is incorrect. First, the CMR building is not being maintained in a safe and secure manner. Second, maintenance expenditures at CMR are relatively low – far lower than are expected at CMRR-NF. CMRR-NF will be a very costly facility to own and operate (¶85, below).

73. In ¶27 Mr. Snyder claims construction of CMRR-NF is critical to “renew and strengthen the Nuclear Nonproliferation Treaty (NPT)” and to enter into new treaty obligations including New START and the Comprehensive Test Ban Treaty (CTBT), for which he says the CMRR-NF is necessary to satisfy the Senate, *i.e.* for political reasons. Mr. Snyder has no qualifications or duties in international relations or Senate politics. Moreover, New START was ratified a few days after Mr. Snyder’s affidavit, and whatever political assessments involved it are now irrelevant. The *political* relationship of the CMRR-NF to some possible future CTBT ratification bargain is pure speculation. The supposed relationship to renewing and strengthening the NPT is the opposite of what Mr. Snyder says. The CMRR-NF supports the manufacture of pits for modified nuclear warheads in an evolving arsenal. This is widely understood as contravening Article VI of the NPT, which requires “a cessation of the arms race.”

⁴⁹ SASC report FY2011, p. 274 (see Mello Aff 1, Par 19, Ref 6).

74. In ¶28 Mr. Snyder claims injury from an injunction, citing supposed deadlines. Completion of this project has been delayed approximately 14 years by poor planning and design. The most serious concern bearing on the schedule for completing CMRR-NF *and its alternatives* is the unsafe condition of CMR (Snyder ¶30), which should be addressed *immediately*, not after CMRR-NF is finished. NNSA's CMR Upgrades Project, abandoned in 2001, had a cost equivalent to one or two year's anticipated maintenance costs for CMRR-NF. A redesigned, updated version of the CMR Upgrades Project would greatly decrease CMR hazards at a relatively modest cost.

75. In ¶29 Mr. Snyder refers to "significant national security impacts" without elaboration. If built, CMRR-NF may be complete in 2023, and it may take two years to certify the operating systems and, according to the 2003 CMRR EIS, four years to fully transition activities to the new building.⁵⁰ The deficiencies to which Mr. Snyder alludes can only occur after CMRR operations is scheduled to begin, 12-15 years from now. Mr. Snyder does not point out that reasonable alternatives are those which, among other qualities, avoid "significant national security impacts." In effect, Mr. Snyder is again saying there are no reasonable alternatives, which is not true.

76. NNSA has prepared a contingency plan to move all remaining functions from CMR into RLUOB and PF-4, should the need arise.⁵¹ There are many alternative ways of relieving CMR, prior to and without CMRR-NF. But NNSA prefers to invest in the far-away CMRR-NF, because all these alleged problems are not, in fact, significant in the near term.

77. In ¶30 Mr. Snyder attests to the impact of reduced operations at CMR on "important characterization and chemistry capabilities" that "support mission requirements." If

⁵⁰ Confirmed schedule details, a central part of the missing project baseline, are not available.

⁵¹ DNFSB Weekly Site Report, January 2, 2009

these impacts are truly significant NNSA must address them sooner than 2023, when CMRR-NF would be available. In 2009, a senior staff member of the House Armed Services Committee asked me why, if CMR were closed and its missions moved elsewhere, as was planned through most of the last decade, those missions couldn't stay wherever they were moved, i.e. PF-4, RLUOB, the radiochemistry labs in TA-48, or elsewhere. Or, alternatively, if there were problems with those new mission homes, couldn't they be upgraded? It was a good question. Defendant D'Agostino answered this question, posed by House Energy and Water

Appropriations Subcommittee Chairman Pete Visclosky:

Visclosky: "NNSA currently relies on the existing, 50-year-old...(CMR) facility at LANL to perform analytical chemistry and material characterization activities for the Pit Manufacturing Campaign. The CMRR would replace this facility. However, the "basis for interim operations" for the CMR facility expires in 2010...If NNSA decides to produce 30-50 RRW pits at the TA-55 facility at LANL starting in the 2012-2014 timeframe [i.e. long before the CMRR is completed], how will the CMR facility accommodate those activities?"

Mr. D'Agostino: "...The options include moving all nuclear Chemistry and Metallurgy Research Facility (CMR) operations into the Plutonium Facility at LANL with attendant displacement of other efforts in the Plutonium Facility; extending the Basis for Interim Operations with the existing operations; and shrinking the operating footprint of CMR and continuing to decrease the inventory of materials in CMR to decrease its risks to support extending the Basis for Interim Operations of CMR beyond 2010." (House Energy and Water Development Appropriations Subcommittee, Hearing of March 29, 2007, supplemental questions for the record, p. 584 in Part 8, "Energy and Water Development Appropriations for 2008," printed version.)

Mr. D'Agostino appears to have described a reasonable alternative.

78. In ¶31 Mr. Snyder admits that "NNSA's strategy" to mitigate impacts from reduced CMR operations depends "entirely" on completion of CMRR-NF, expected to occur in 2018. (That date has been set back at least two to five years) The purpose of NEPA is to explore *alternatives* to "NNSA's strategy."

79. In 1997 defendants rejected a possible future CMRR-NF for reasons that are now familiar:

The construction and operation of a new facility was considered and DOE determined that it was not fiscally prudent (Section 1.3). However, *construction of a new facility would not meet DOE's need for continued performance of uninterrupted interim and ongoing radioactive chemical and metallurgical research activities at LANL.*

Planning, design, and construction of a new facility would take a minimum of 10 years to complete. As noted in Section 2.3, the higher risks and lower safety margins that would exist in the CMR Building without upgrades would be unacceptable to DOE within about 5 to 10 years. Further, *a new facility is estimated to cost more than twice as much as the proposed upgrades* (\$348 million vs. \$123 million). In addition, the existing CMR Building would have to be decommissioned, incurring additional costs and wastes generated would take up space in the LANL low-level radioactive waste landfill or other permitted waste disposal system.

A new facility could disturb previously undisturbed land. New construction could potentially have adverse environmental effects upon water and air quality, biological resources, and possibly archeological resources. Because this alternative could potentially cause more environmental effects than the proposed upgrades, is estimated to cost more than twice the proposed upgrades, and would jeopardize DOE's requirement to maintain the uninterrupted operational capability to perform radioactive and chemical research, construction and operation of a new facility were not considered reasonable, and therefore, not analyzed further in this EA.⁵²

Considerable new knowledge has appeared since 1997 that bears on this judgment, both as to upgrading the southern half of CMR (now harder to accomplish than it appeared in 1997), and as to CMRR-NF (from 12 to 18 times more expensive as was estimated then, prior to correcting for inflation). We do not know of any studies of upgrading CMR upon which fact-based conclusions could be based. No objective SEIS could be written without trustworthy studies of this and other alternatives, and the data from these studies made available to other federal agencies and the public prior to the scoping process.

C. Potential alternatives to CMRR-NF can be named which, if analyzed, may meet defendants' mission needs more effectively at lower cost, environmental impact, and management risk than CMRR-NF.

80. The identification of "reasonable alternatives" requires, first, the thorough dissection and specification of mission need, and, second, thorough examination of the potential

⁵² DOE, "Environmental Assessment for the Proposed CMR Building Upgrades at the Los Alamos National Laboratory," p. 24.

of existing facilities at LANL and at other sites. Such alternatives would need to be examined for functionality, life-cycle cost, longevity, environmental impact, implementation speed, management risk, compatibility with other missions at the site, effect on morale; effect on diplomacy; and so on. Plaintiff has prepared a short précis regarding CMRR-NF alternatives which includes a matrix with the main elements of the CMRR-NF mission (as far as plaintiff understands them) on one axis, and potential existing, planned, and upgraded facilities at LANL and other sites on the other axis.⁵³ This table shows some of the alternatives that should be examined for reasonableness. Without at least some analysis on the part of defendants, we and other parties inside government and out are hard-pressed to do more.

81. The decision in 1996 to conduct all plutonium pit operations at LANL was based on a cost estimate an order of magnitude lower than defendants face today.⁵⁴ A properly prepared EIS would enable defendants to reevaluate the need for simultaneously building three multi-billion-dollar plutonium facilities, one in Los Alamos and two at Savannah River, while *downgrading* an existing plutonium facility at Lawrence Livermore, which has no significant, publicly-known safety problems, contains more Hazard Category II space than the CMRR-NF design, and which already has pit production equipment. At the same time, LANL facilities which support CMRR-NF should also be examined as to longevity and safety. These structures include CMR, PF-4, the Sigma building, and other facilities. There may be other LANL facilities supporting CMRR-NF that have significant structural, safety, and other shortcomings. The recent appearance of a mysterious, large “cold, hardened shop” next to PF-4 and CMRR-NF

⁵³ Los Alamos Study Group, “The Proposed Chemistry and Metallurgy Research Replacement Nuclear Facility (CMRR-NF): New Realities Call for New Thinking,” December 10, 2010.

⁵⁴ Richard Geddes, CMRR SEIS scoping comments, October 27, 2010. Mr. Geddes 42-year experience in nuclear materials management includes being engineering manager for SRS's input into the plutonium disposition and stockpile stewardship programmatic EIS and as engineering manager Modern Pit Facility conceptual design team.

in Attachment 2 of Mr. Snyder's affidavit shows that NNSA plans new capabilities to work in tandem with CMRR-NF and other TA-55 facilities. The dramatic cost escalation at CMRR-NF together with the problem of bringing other facilities into compliance with seismic safety requirements has unquantified cost implications and unknown feasibility.

82. Under NEPA defendants must "rigorously explore and objectively evaluate all reasonable alternatives," even those which are not within defendants' jurisdiction.

[40 CFR] Sec. 1502.14 Alternatives including the proposed action.

This section is the heart of the environmental impact statement. Based on the information and analysis presented in the sections on the Affected Environment (Sec. 1502.15) and the Environmental Consequences (Sec. 1502.16), it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public. In this section agencies shall:

- (a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.
- (b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.
- (c) Include reasonable alternatives not within the jurisdiction of the lead agency.

83. Possible "reasonable alternatives" include:

- a. Upgrade and use from one to four CMR wings, with Wing 9 and its supporting mechanical systems at the top of the list. Combine with other facility use. Structural upgrades as revised from previous plans, may well be feasible.
- b. Construct a new CMR at TA-3.
- c. Consider various smaller CMRR-NFs, *e.g.*, without a large vault, as an "above-ground" facility; as a Hazard Category III facility; without the "hotel concept" and hence more internal supports, as an "above-ground facility" (as previously defined,

- i.e. less than 50 feet deep) with a broader footprint but less depth, avoiding proximity to the unconsolidated ash layer, or at a LANL location with more solid rock underneath.
- d. Delay any decision to build CMRR-NF and pursue later if needed, deferring high maintenance expenses (estimated by LANL at about 2.5% of capital cost per year, *i.e.*, circa \$145 million/yr) and higher CMRR-NF operating expenses. This approach could save in excess of a billion dollars over a decade in net present value even when a reasonable allowance for design re-start costs are included.
 - e. Make pit production contingent on the development of actual need, if needed, centered at LANL but involving other sites depending on production rates. Thus, NNSA establishes priorities for redirecting existing plutonium Hazard Category II/III space. Many variations are possible.⁵⁵
 - f. Make internal modifications at PF-4, possibly including moving Pu-238 work to Idaho National Laboratory (“INL”), freeing PF-4 space. Defendants have a line item and management structure in place for this option (TA-55 Reinvestment Project).
 - g. Enhance facilities at other sites for pit production mission elements, e.g. the K Area Complex at SRS, or INL, for: pit recycling, plutonium metal production, for foundry operations, and for Pu and pit storage.⁵⁶
 - h. Modify RLUOB, e.g. to HazCat III or higher for specific uses, or possibly for transient or sporadic uses, or as an element of contingency plans.

⁵⁵ This option has been supported by LANL and Lawrence Livermore National Laboratory (LLNL). Mark Hart, Warren Wood, and David Olivas, “Plutonium Pit Manufacturing Unit Process Separation Options for Rapid Reconstitution: A Joint Position Paper of Lawrence Livermore National Laboratory and Los Alamos National Laboratory,” LLNL, LANL, September 6, 1996.

⁵⁶ *Id.*

- i. Use LLNL's Superblock as a HazCat II facility as part of contingency plans.
- j. Redirection of parts of Mixed Oxide Fuel Fabrication Facility at SRS ("MFFF") for pit production elements or to absorb plutonium disposition missions planned for PF-4.
- k. Clarify pit policies, *e.g.*, establish policies of
 - 1. Life extension programs (LEPs) without pit production;
 - 2. Keeping a retired warhead and/or pit bank;
 - 3. Abjuring certification of new-design pits or replacement warheads;
 - 4. Limiting required pit production rate;
 - 5. Requiring only one production line; and
 - 6. Retiring some pit types (*e.g.* W88)

84. Recognize that, if pit production must be: a) active, *i.e.*, for the stockpile and just not for evaluation purposes; b) prompt; c) on a large scale; d) without the ability to commandeer non-pit space at PF-4 and elsewhere; and confined to a single site (LANL, which has significant site limitations), it will be very expensive. The feasibility of establishing a pit production mission at LANL is far from proven.

D. From a value engineering perspective the value of CMRR-NF has declined dramatically, suggesting a hard look at alternatives is warranted.

85. From 1999-2004, during which time many key constituencies became politically vested in the project, Defendants persuaded themselves and others that a NF would be relatively quick and inexpensive. The first public reference to CMRR is an announcement by Senator Bingaman's office in 1999, which stated the CMRR "would not be a Taj Mahal but a scaled-down, streamlined facility that would meet the needs of the lab at a lower cost than they are met

now.”⁵⁷ (CMR maintenance and operating costs, exclusive of programmatic efforts, were just \$12.5 million per year.⁵⁸ CMRR operating costs were recently projected to be an order of magnitude higher.⁵⁹) In 2001, Defendants still stated that NF would cost just \$375 million and would be complete in FY2007.⁶⁰ By 2003 and 2004, when Congress first began funding engineering design for the NF and Defendants wrote their EIS and ROD, the estimated cost had still not begun to rise.

86. The useful space per dollar spent – “value” in the Value Engineering sense, to which declarant Herman LeDoux refers in his paragraph 16 – has dramatically decreased over the history of the CMRR-NF project. Please see the following table.⁶¹

⁵⁷ Ian Hoffman, “Bingaman Seeks Funds for Design of Weapons Facility,” *Albuquerque Journal North*, April 15, 1999, archived at http://www.lasg.org/Pit_Prod.htm.

⁵⁸ DOE CBR FY2000: Project 95-D-102, <http://www.cfo.doe.gov/budget/00budget/index.htm>

⁵⁹ “In FY14 [sic – FY2022], the CMRR facility is planned to become operational. The CMRR maintenance budget is projected at approximately 2.5% of RPV [Replacement Plant Value] to sustain its condition. One of the challenges for the Laboratory and NNSA is to provide the funds necessary to meet this new maintenance funding demand.” In FY07, total LANL maintenance spending was \$88 M, of which \$6 M was for the existing CMR building. See LANL, “Ten-Year Site Plan, FY2008-FY2017,” LA-CP-07-0039, January 9, 2007, pp. 114-115. Study Group files, Freedom of Information Act request.

⁶⁰ LANL, *Defense Program Draft Ten Year Comprehensive Site Plan* (TYCSP), 9 Feb 2001: Master Project List, http://lasg.org/CMRR/Litigation/LANL_Master_Project_List-FY2001.pdf

⁶¹ In this table, all costs are current-year estimates, uncorrected for inflation. For lack of better data I assume CMRR-NF is two-thirds of total CMRR cost from 2003 through 2008. I continue the 2005 to 2007 total RLUOB cost through 2009 for lack of any data. From the crude wide range of estimates offered, I select CMRR D&D at \$400 M throughout. There was no requirement or estimate for CMR D&D in 2003 and 2004. Only CMRR-NF cost is used to calculate dollars/sq. ft.

Year estimated	CMRR-NF cost, \$M,	RLUOB cost, \$M,	CMR D&D \$M	CMRR total, \$M	HC II space, sq. ft.	HC III space, sq. ft.	Total useful sq. ft.	\$1,000 per sq. ft.	Value ratio to '03
2003 ⁶²	400	200	0	600	60,000	60,000	120,000	3.33	1.00
2004 ⁶³	400	200	0	600	22,000	23,000	45,000	8.89	0.37
2005 ⁶⁴	561	277	400	1,238	38,500	0	38,500	14.57	0.23
2006 ⁶⁵	561	277	400	1,238	38,500	0	38,500	14.57	0.23
2007 ⁶⁶	561	277	400	1,237	38,500	0	38,500	14.57	0.23
2008 ⁶⁷	>2,000	277	400	>2,564	38,500	0	38,500	>51.95	<0.06
2009 ⁶⁸	>2,000	277	400	>2,564	38,500	0	38,500	>51.95	<0.06
Feb. 2010 ⁶⁹	3,432	363	400	4,195	38,500	0	38,500	89.14	0.04
Nov. 2010 ⁷⁰	3,700 to 5,800	363	400	4,463 to 6,563	38,500	0	38,500	96.10 to 150.65	0.03 to 0.02

HC = Hazard Category; \$M = \$million; D&D = decommissioning and disposal

87. The result of this analysis – limited because NNSA and DOE have never disclosed the basis for what sketchy cost estimates they have provided Congress– is that useful nuclear Hazard Category II and III space in the proposed CMRR project has declined by a factor of between roughly 20 and 50 since the first CMRR cost estimate was submitted to Congress. Moreover, so far in this project, whenever an estimated cost bracket (minimum and maximum) has been stated in one year, a later estimate is found to exceed the previous maximum cost.

⁶² DOE FY2004 CBR, p. 347, 349.

⁶³ DOE FY2005 CBR, p. 220, 222.

⁶⁴ DOE FY2006 CBR p. 271; p. 276 for discussion of D&D costs. Square footage: Mello Aff. #1, ¶23. a 2009 value that is assumed to apply from 2005 through 2010 for lack of better data.

⁶⁵ DOE FY2007 CBR, p. 284

⁶⁶ DOE FY2008 CBR, p. 294

⁶⁷ DOE FY2009 CBR, p. 298

⁶⁸ DOE FY2010 CBR, p. 215

⁶⁹ DOE FY2011 CBR, p. 227

⁷⁰ White House, “November 2010 Update to the National Defense Authorization Act of FY2010 Section 1251 Report: New START Treaty Framework and Nuclear Force Structure Plans” November 17, 2010, p. 6. (see P’s Re-MTD, ref 1)

While gross cost inflation is common for DOE and NNSA projects, I am unaware of any large project ever undertaken by NNSA or its predecessor DOE Defense Programs in which there has been comparably steep climb in either estimated cost (increased by a factor of 9 to 14) or erosion in planned value (decreased by a factor of 20 to 50), where both are expressed in current (uncorrected) dollars.

88. When compared to previous Hazard Category II plutonium facilities at LANL, the cost of CMRR-NF laboratory and vault space in inflation-corrected dollars has increased dramatically since 1954. See the following table. Historical data for CMR and PF-4 are from Study Group files.

Facility	Year	HazCat II space, sq. ft.	Cost then, \$millions (M)	Inflator (CPI)	Cost now, \$M	Constant \$/HazCat II sq. ft.
CMR (wings 1, 2, 3, 4, 5, & 7)	1954	about 44,000	(actual) 22	8.13	172	3,909
PF-4	1978	67,000	(actual) 75	4.07	305	5,117
CMRR-NF	2003	60,000	(est.) 400	1.19	476	7,933
CMRR-NF	2004	22,000	(est.) 400	1.16	464	21,090
CMRR-NF	2010	38,500	(est.) 3,700 to 5,800	1.00	3,700 to 5,800	96,104 to 150,649

Today's estimates for the cost in constant dollars of nuclear facility space in the CMRR-NF are from 19 to 29 times the cost of similar space completed recently during the Cold War, i.e. at PF-4. This cost per square foot comparison could be extended (unfavorably to CMRR-NF) to the proposed Modern Pit Facility (MPF) project. [can we put in the data?]

The MPF was described – as virtually all proposed NNSA projects are described – as “critical” to national security by defendants when announced in 2003.⁷¹ Subsequently the MPF was abandoned without ceremony, as many DOE projects are. Between 1980 and 1996, DOE

⁷¹ “If constructed and operated, a MPF would address a critical national security issue by providing sufficient capability to maintain, long-term, the nuclear deterrent that is a cornerstone of U.S. national security policy. A MPF would provide the necessary pit production capacity and agility that cannot be met by pit production capabilities at LANL.” *Draft Supplemental Programmatic Environmental Impact Statement on Stockpile Stewardship and Management for a Modern Pit Facility*, May 2003, p. S-15. DOE/EIS-236-S2.

cancelled some 31 out of 80 “Major System Acquisitions” (MSAs), on which more than \$10 billion had already been spent. As of 1996, only 15 of the 80 projects begun during the period had yet been completed; of these, “most of them were finished behind schedule and with cost overruns.” Of the 34 MSAs still continuing in 1996, “cost overruns and ‘schedule slippage’ have occurred and continue to occur on many of the ongoing projects.”⁷²

89. The estimated completion date for construction of the CMRR-NF project has been variously estimated as 2008 (in 2001), 2009 (in 2003), 2010 (in 2002), 2020 (in early 2010), and now as late as 2023: “...for the high [cost] estimate[s], the facilities would reach completion in FY 2023 for CMRR and FY 2024 for UPF.”⁷³ The 2003 EIS estimated a four-year transition period to the new building, once the project is complete.

90. Initially, CMRR-NF was supposed to have 60% of its 200,000 gross sq. ft. of interior building area devoted to programmatic purposes.⁷⁴ The comparable figure today is about 9.5% (of 406,000 gross sq. ft.).⁷⁵ That is, 90% of the gross area in CMRR-NF, plus much of RLUOB, plus a range of supporting structures and connected actions, must be purchased and built to make 10% of CMRR-NF’s floor area useful and safe.

91. The above tables and analyses do not show the life-cycle costs of CMRR-NF. Defendants have said CMRR-NF will be far more expensive to operate than CMR. For these and other reasons previously enumerated I conclude that the CMRR-NF is already a management fiasco, and in clear need of fundamental reexamination.

E. The proposed Supplemental Environmental Impact Statement (SEIS) could never provide

⁷² Government Accounting Office, “Department of Energy: Major System Acquisitions From 1980 Through 1996,” RCED-97-85R, March 4, 1997.

⁷³ White House, “November 2010 Update to the National Defense Authorization Act of FY2010 Section 1251 Report: New START Treaty Framework and Nuclear Force Structure Plans” November 17, 2010, p. 6.

⁷⁴ DOE FY2004 CBR, p. 349.

⁷⁵ Mello Aff. #1, ¶23; DOE FY2011 CBR p. 228.

objective analysis of all reasonable CMRR-NF alternatives, as required by NEPA.

92. NNSA has been increasing its commitment to CMRR-NF since making the decision in 2004 to construct and operate it. Nearly all of the activities currently underway specifically advance and entrench defendants' preferred alternative and no other. Thus, they are prejudicial action. These prejudicial actions include detailed design and the design, purchase, and installation at RLUOB of specialized equipment to support CMRR-NF. No objective EIS or SEIS could be written while project momentum continues and specific contractual commitments to it continue to be made, executed, and extended.

93. The purpose of NEPA analysis is to foster better federal decisions, not to analyze the impacts of decisions already made (40 CFR 1500.1). NEPA analysis is supposed to be done very early in the design process (40 CFR 1501.2), prior to formal alternative selection at CD-1, *i.e.*, when alternatives to the project are still being weighed.⁷⁶ DOE guidance states that such interim commitments are normally not appropriate.⁷⁷ NNSA claims its SEIS will help the agency choose between design details, but the issue is a choice between primary alternatives. The proposed alternatives in the SEIS NOI do not involve choices between design details.

94. The SEIS is being written because *none* of the original alternatives are reasonable any more. The 2003 EIS only considered constructing a CMRR in neighboring technical areas. Now the scale and scope of the project have markedly changed, dramatically changing the environmental impact analysis. Relevant new environmental information has come to light. New circumstances and scientific knowledge, erosive to the original purpose and need, have appeared. The project itself has exploded in cost and lengthened in schedule as the true nature of the

⁷⁶ See DOE orders discussed at Mello Aff. #1, ¶¶66-69 and in this affidavit, ¶¶55, 71.

⁷⁷ DOE, "Guidance Regarding Actions That May Proceed During the National Environmental Policy Act (NEPA) Process: Interim Actions," June 17, 2003.

proposed site has become internalized. Without a comprehensive treatment, all reasonable alternatives and their impacts cannot be evaluated. An EIS must “[r]igorously explore and objectively evaluate all reasonable alternatives” (40 CFR Sec. 1502.14). “The information [in an EIS] must be of high quality.” (40 CFR 1500.1). There is nothing left of the original EIS to “supplement,” and the attempt to do cannot meet NEPA standards. The very word “supplemental” signals an unbroken commitment to the project. To write a “supplemental” analysis of a project’s alternatives, when *one* alternative is the sole subject of such commitment, relegates the SEIS to *post-hoc* paperwork, contrary to NEPA’s intention and requirements.

95. The purpose and need of the original project require reexamination today because of new scientific knowledge (existing pits will far outlast the factory to produce them), new technical data from the stockpile management program (stockpile can be kept safe, secure, and reliable without pit production indefinitely), new stockpile realities (post-2003 stockpile current and planned reductions), and new policies (NPR prejudiced against pit production; rejection of RRW). There is no significant pit production authorized or planned. NNSA is explicitly and fully committed to one alternative as they themselves and numerous senior officials have said. We read it on the front pages of our newspapers,⁷⁸ extensively in the trade press, on the White House web site,⁷⁹ and in the updated “Section 1251 Report.”⁸⁰ The NOI and other materials provided so far contain too little factual material to provide any basis for informed comment. The scope of analysis presented in the October 1, 2010 Notice of Intent (NOI) was far too narrow and cursory. The current purpose and need were not examined. A very narrow suite of alternatives

⁷⁸ E.g. John Fleck, “Nuclear Spending Plan Up,” *Albuquerque Journal*, 11/ 19/10, <http://www.abqjournal.com/news/state/19232507888newsstate11-19-10.htm>.

⁷⁹ White House, “Fact Sheet: An Enduring Commitment to the U.S. Nuclear Deterrent,” 11/17/10, <http://www.whitehouse.gov/the-press-office/2010/11/17/fact-sheet-enduring-commitment-us-nuclear-deterrent>

⁸⁰ White House, “November 2010 Update to the National Defense Authorization Act of FY2010 Section 1251 Report: New START Treaty Framework and Nuclear Force Structure Plans” November 17, 2010, p. 6.

was offered, without any technical background to even indicate their possible feasibility. Two of the three alternatives are clearly infeasible and unsafe (build the rejected 2003 CMRR-NF; keep using CMR without upgrades). No secondary alternatives were even mentioned. “Business case” or “capacity” analyses are needed to support a full suite of alternatives.

96. NNSA is conducting its NEPA process separately from other design, feasibility and impact analyses it is doing.

97. The notice methods used by NNSA for the SEIS were inadequate. Plaintiff, for example, did not receive any notice from NNSA or DOE, meaning that DOE did not use its mailing lists of regional organizations and individuals long involved in DOE affairs.⁸¹ Although CMRR-NF is clearly an issue of national importance, and DOE maintains national lists of parties categorized by interest, no evidence has been provided that any such list was used. The cognizant staff members at the New Mexico Environment Department (NMED) who had commented on the 2003 EIS told us they never saw any formal notice of this SEIS.

98. No hearings in other relevant NNSA locations, even though alternatives may involve facilities at other sites including the Savannah River Site (SRS), Lawrence Livermore National Laboratory (LLNL), and the Idaho National Laboratory (INL). LANL was chosen as a pit production site based on estimate of total costs a factor of ten lower than today's.⁸² Given the huge cost increases, other sites which already have a plutonium infrastructure have clearly become reasonable alternatives, implying a need for proper notice and comment opportunities.

⁸¹ This issue was also pointedly raised in some detail by the Pajarito Group of the Sierra Club.

⁸² Richard Geddes, CMRR SEIS scoping comments, October 27, 2010.

99. There were no actual scoping hearings. Providing computer terminals to type comments do not constitute a “hearing.” Neither is an impromptu forum, provided without notice, where only informal notes are taken, a hearing.

F. An objective NEPA analysis of CMRR-NF and its alternatives is impossible without certain prior actions by defendants.

100. NNSA and DOE have publicly expressed their commitment to the single CMRR-NF alternative currently being pursued based on the 2004 ROD and their own critical decision process. A NEPA-compliant EIS or SEIS for CMRR-NF requires that they formally rescind these.

101. Defendants must rescind Critical Decision 1, “Selection of Alternatives.”

102. Defendants must halt further investments in the CMRR-NF alternative currently being pursued, which only further entrench this alternative, reduce its schedule disadvantage to simpler alternatives, and prejudice any future decision. NEPA recognizes no post-decisional SEIS.

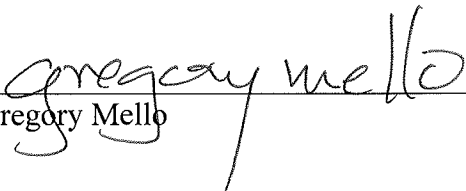
103. Defendants must undertake a searching review of the project’s purpose and need. A great deal has changed, from stockpile size (much smaller) to known minimum pit life (much longer), to confidence in stockpile maintenance without pit replacement (now complete). In 1997, DOE said CMRR was unreasonable. In 2001, CMRR-NF plans did not include a Hazard Category II structure. In 2003, CMRR-NF plans had some 120,000 sq. ft. of nuclear laboratory space. A few years later, CMRR-NF plans had about 38,500 sq. ft. of nuclear laboratory space. Clearly DOE and NNSA have held many different concepts of what is essential in the last 14 years.

104. As preparation for an EIS, defendants must conduct business case analyses of the cost and feasibility of all reasonable alternatives, considering the infrastructure of the entire weapons complex as appropriate. No objective EIS can be written without this.

105. A full national scoping process that takes the newly clarified purpose and need and new business case and feasibility analyses into account is then required.

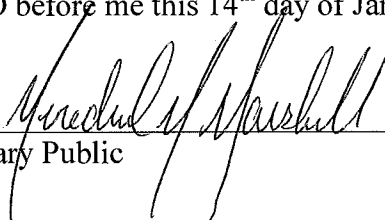
Gregory Mello, Affiant, being first duly sworn states on oath, that all of the representations in this Affidavit are true as far as the Affiant knows or is informed, and that such Affidavit is true, accurate and complete to the best of Affiant's knowledge and belief.

Dated: January 14, 2011.



Gregory Mello

SUBSCRIBED AND SWORN TO before me this 14th day of January, 2011, by Gregory Mello.



Notary Public

My Commission Expires: 02-26-2012

