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 STEVEN CHU, in his capacity as SECRETARY, DEPARTMENT OF ENERGY; NATIONAL NUCLEAR SECURITY ADMINISTRATION; THE HONORABLE THOMAS PAUL D'AGOSTINO, in his Capacity as ADMINSTRATOR, NATIONAL NUCLEAR SECURITY ADMINISTRATION,

Defendants.

PLAINTIFF'S REPLY MEMORANDUM IN SUPPORT OF MOTION FOR PRELIMINARY INJUNCTION

Preliminary Statement

This memorandum is submitted on behalf of plaintiff, the Los Alamos Study Group ("plaintiff") in reply to Federal Defendants' Opposition to Plaintiff's Motion for Preliminary Injunction ("D.Br."), Docket ("Dkt") No. 23.

Statement

The fundamental mandate of the National Environmental Policy Act ("NEPA") requires analysis before a project is undertaken. It is regrettable that instead of addressing their implementation of a multi-billion-dollar nuclear facility without a valid analysis of the environmental impacts of that project and its alternatives, defendants offer arguments based upon confusion and an appeal to prejudice. For example, plaintiff's commitment to the goal of nuclear disarmament clearly has no possible relevance to this case, yet it is no accident that defendants in

their brief refer twice to this commitment (D.Br. at 15, 23), as if it were a label of aspersion and a factor of weight. Similarly, defendants have no excuse for asserting repeatedly that they are in continuing compliance with NEPA (D.Br. at 1, 23) and that they have not begun to construct the Chemistry and Metallurgy Research Replacement Nuclear Facility ("CMRR-NF"). (D.Br. at 1, 15, 16). The undisputable facts on the ground show otherwise. Moreover, it not only contravenes the evidence but it also raises a serious question of candor for defendants to tell the Court that they have not "locked in" to any alternative for CMRR-NF (D.Br. at 14), have made "no such decision (let alone implementation)" (D.Br. at 8 n.2) when an extensive public record, including recent statements from the highest levels of government, Third Affidavit of Gregory Mello (Exhibit ("Ex.") 22) ("Mello Aff. 3" ¶¶ 95) shows that the truth is opposite. And the repeated claims that defendants would pursue detailed design of the CMRR-NF *to assist the NEPA process* (D.Br. at 2, 13, 19, 20), rather than pause the project and consider the alternatives as NEPA requires, cannot be regarded seriously when such design efforts manifestly serve *only* to harden their commitment to their improperly-chosen alternative and are expressly forbidden by defendants' own departmental NEPA guidance. There is even the denial that CMRR-NF construction is taking place, while defendants elsewhere state that their present construction activities are directed to the purpose of operating a future CMRR-NF.

While the defendants would substitute rhetoric and the cloak of serving national security for proof and proper argument, the public interest and defendants' interests are totally divergent here. Defendants have no evidence from "specialists" or "qualified experts" (D.Br. at 6, 17-18, 22) that their conduct is required by interests of national security. The public interest, as articulated by NEPA and the decisions in this Circuit, lies, instead, in requiring federal agencies to study and describe, and to disclose to the public, the consequences of their ambitious designs

before a decision is made to proceed. It lies in identifying, rigorously exploring and objectively evaluating "*all reasonable alternatives*" (40 C.F.R. § 1502.14(a))(*emphasis supplied*) to the proposed action. It lies in analyzing the direct and indirect environmental impacts, setting them down in writing, and inviting the public's comment and criticism. It lies in objective analysis, free from improper influences or predetermination, of the true suite of alternatives before making a commitment to one of them.

All sorts of baseless arguments have been raised, such as the contention that plaintiff must prove damages that are "certain, great, actual, and not theoretical" (D.Br. at 2, 15, 16, 17), when the courts have made clear that a NEPA plaintiff succeeds by showing an *increased risk* of injury. (See page 14, *infra.*) It is emphatically not plaintiff's burden to show the impacts that would have been described in an environmental impact statement, if defendants had prepared one as the law requires.[1] To label as "speculative" (D.Br. at 3, 16, 17) the adverse impacts of a massive construction project such as the CMRR-NF only shows defendants' contempt for those who suffer such consequences and for those that recognize the need to protect against them. And to argue that injuries from construction can be ignored because they would occur after defendants issue a supplemental EIS (D.Br. at 20) rejects the uniform case law holding that long-term consequences are highly relevant and betrays defendants' disdain for the NEPA process. (See page 13, *infra.*)

[1] This Court has ruled: "An agency's shortcomings in environmental inquiries should not turn out to be a detriment to plaintiffs expected to do better making the same inquiries. . . . NEPA requires federal agencies, not plaintiff consumer groups, to take the requisite 'hard look' at environmental consequences. An agency would have little incentive to make comprehensive environmental assessments when it can cast that burden onto a plaintiff trying to build a case for a NEPA violation. Shifting the congressional mandate of environmental analysis from federal agency to plaintiff perverts the statute's objective." *Los Alamos Study Group v. O'Leary,* U.S. District Court for the District of NM, No. 94-CV-D1306-ELM (Jan. 26, 1985)(slip opinion at 26).

Defendants assert that they intend to prepare a Supplemental Environmental Impact Statement ("SEIS")[2] to analyze the impact of "design changes" at the CMRR-NF. (*id.;* D.Br. at 19) Critically, defendants refuse to stop work on the CMRR-NF pending trial. For defendants to demand relief from the injunctive consequences of their NEPA violations, based on the transparent device of a supplemental EIS, when the SEIS shows no prospect of considering the actual "reasonable alternatives," and when defendants push forward the CMRR-NF project simultaneously with their supposed good-faith SEIS analysis, underscores their rejection of the fundamental purpose of NEPA.

Under NEPA, timing is everything. NEPA, in the words of Sen. Jackson, Chairman of the Senate Interior and Insular Affairs Committee at the time of enactment, demands examination of alternatives for federal action that can lead to environmental degradation "*before they get off the planning board.*" (115 Cong. Rec. S 29055 (1969)) (*emphasis supplied*). This Court has stated, in *Los Alamos Study Group v. O'Leary,* U.S. District Court for the District of NM, No. 94-CV-D1306-ELM (Jan. 26, 1985), a case bearing many similarities to this one, that DOE violated NEPA by beginning construction before it completed NEPA compliance and that tardy promises to prepare an EIS had little value:

> The decision by DOE to begin an EIS at this point does little to ameliorate the fact that it was not done before the DARHT project began. *See Weinberger v. Romero-Barcelo,* 456 U.S. 305, 317 n.12 (the cessation of violations does not bar issuance of an injunction)(cit. omitted); *see also Public Service,* 825 F.Supp. at 1503-04 (agency's statements that it will perform the required NEPA analysis not sufficient to invoke voluntary cessation exception to mootness doctrine). Indeed, some of the damage NEPA seeks to prevent may already be done. Bias toward

[2] Defendants insist that they are "preparing the SEIS following the same procedures as it would for a 'new' EIS." (D.Br. at 1) However, defendants do not state that they will include a comparison of "all reasonable alternatives" to the current design of the CMRR-NF nor that they will disclose even basic data concerning such alternatives at the scoping stage so that federal and state agencies, tribes, and members of the public can comment on the alternatives to be studied. The scoping stage of the SEIS has passed without any analysis or even a list of possible reasonable alternatives. Two of the three alternatives mentioned in the Notice of Intent have already been abandoned as infeasible by defendants.

> one alternative or another may already exist as construction was allowed to start and progress without public input." (*Los Alamos Study Group v. O'Leary* at 20).

In *Los Alamos Study Group v. O'Leary,* this Court preliminarily enjoined DOE from all further construction of the Dual-Axis Radiographic Hydrotest ("DARHT") facility at Los Alamos National Laboratory "or from taking any other actions in furtherance thereof" where DOE had failed to issue an EIS analyzing the environmental impacts of the DARHT facility and reasonable alternatives.

Here, DOE and NNSA took the CMRR-NF project from the planning board long ago and thrust it into implementation without issuing an EIS analyzing the project they were planning and its reasonable alternatives, and in disregard of the Record of Decision ("ROD") that they issued in 2004. If their actions continue, they bid fair to make the project unstoppable. Only the Court's intervention, by a preliminary injunction, as was issued in *Los Alamos Study Group v. O'Leary*, can preserve the consideration of alternatives that Congress mandated.

The purpose of a preliminary injunction is to "preserve the relative positions of the parties until a trial on the merits can be held." *Univ. of Texas v. Camenisch,* 451 U.S. 390, 395 (1981). A prohibition on continued planning, design, and construction of the CMRR-NF is necessary to preserve the *status quo ante* and to "prevent the judicial process from being rendered futile by defendant's action or refusal to act." *O Centro Espirita Beneficiente Uniao de Vegetal v. Ashcroft,* 389 F.3d 973, 977 (10th Cir. 2004).

Plaintiff has met the standards for issuance of a preliminary injunction, namely: (1) substantial likelihood of success on the merits, (2) irreparable harm unless the injunction is issued, (3) the threatened injury outweighs the harms that the preliminary injunction may cause to the non-moving party, and (4) an injunction will not adversely affect the public interest. *Davis v. Mineta,* 302 F.3d 1104, 1111 (10th Cir. 2002).

Defendants' responding papers are remarkable for what they fail to contest. It is undisputed that federal officials from the Administration, DOE, and NNSA have declared their commitment to construct the CMRR-NF. The 2003 EIS analyzed an entirely different design that is smaller and cheaper than the present CMRR-NF, by an order of magnitude, and bears no resemblance to the current design. That seven-year-old EIS clearly does not support construction of the present CMRR-NF. There is no serious claim that the 2003 EIS, or the subsequent SWEIS[3] or the CTSPEIS[4], adequately analyzes the planned CMRR-NF and its reasonable alternatives. There is no response to plaintiff's listing of numerous NEPA regulations violated by defendants (Plaintiff's Motion for Preliminary Injunction ("Pl. MPI") at 12-14; Dkt. No. 13). While claiming that the purpose, location and footprint of the CMRR-NF are unchanged since the 2003 EIS (D.Br. at 1, 9, 23), defendants do not dispute that the project has blossomed far beyond the scope of 2003-04.

The CMRR-NF budget has exploded from $350 to 500 million to $3.7 to 5.8 billion. (White House Fact Sheet, Nov. 17, 2010). Construction will not take 34 months but 144 months, and it will not be completed in 2009 but 2023-24. (Exhibit ("Ex") 1: November 2010 Update to the National Defense Authorization Act of FY 2010 Section 1251 Report, at 6). Instead of a structure built 50 to 75 feet below grade (as previously analyzed), defendants plan to excavate to 125 to 140 feet and replace an entire unstable stratum with a giant block of concrete the width and breadth of a football field and 120 feet tall. The total volume excavated will not be 167,000 cubic yards but 579,000 to 703,500 cubic yards. (Ex 2: Supplemental Analysis at 19, table 2, Aug. 17, 2010 ("SA"); Ex 3: Bachmeier, C., Mar. 14, 2007 CMRR public meeting ("mtg"), Tr.

[3] Final Site-Wide Environmental Impact Statement for Continued Operation of Los Alamos National Laboratory (DOE/EIS-0380)(May 2008)("SWEIS").
[4] Complex Transformation Supplemental Programmatic Environmental Impact Statement (DOE/EIS-0236-S4)(Oct. 2008)("CTSPEIS").

26). The "purpose and need" now include the "hotel concept," under which floor layouts can be altered to accommodate as-yet-unknown future missions; this concept caused significant seismic design problems and is the cause of some of the dramatic growth in project impacts. (DNFSB Staff Issue Report, April 16, 2008, at 5). Concrete requirements have increased from 3,194 cubic yards to 371,000 cubic yards; steel requirements have increased from 242 tons to 18,539 tons (Pl. MPI) (Dkt. No. 13 at 5, citing SA at 7, 30; 2003; EIS at 2-21). Such increases will magnify impacts from resource production and transportation and construction. The affected area has increased from 26.75 acres in 2003 to approximately 96 acres. (Pl. MPI, Dkt. No. 13, Mello Aff. 2 at Paragraph ("Par") 12h *citing* 2003 EIS at S-31; at Par. 4g *citing* SA at 11, at Par. 12a *citing* 17). The peak construction work force has increased from 300 to 1000. (Pl. MPI at 5, Dkt. No. 13 *citing* 2003 EIS at 2-21; Pl. MPI, Dkt. No. 13, Mello Aff. 2 at Par. 14b *citing* SA at 25). Plans now include two concrete batch plants, a craft worker facility, and an additional truck inspection site. (Ex 4: McKinney presentation, Sept. 8, 2010, at 5; Pl. *Response to Motion to Dismiss* ("Re-MTD") Dkt. No. 10, Mello Aff 1 at Par 71, *citing* Bretzke presentation, June 16, 2010, at 7).[5] Defendants' latest filing includes a map showing another previously undisclosed CMRR component (the "CMRR/TA-48 Office Complex") of unstated size and yet another large previously undisclosed connected action ("TA-55 Cold Hardened Shop") with outside dimensions only slightly smaller than the CMRR-NF itself (Snyder Decl., Att. 2). These latest elements have never been disclosed or analyzed under NEPA.

Defendants have been implementing the CMRR-NF project since 2004. In February, 2004, they issued a ROD based on the 2003 EIS, deciding to construct the CMRR-NF. (69 Fed.

[5] Defendants now claim that the need for an electrical substation, warehouse, and the realignment of Pajarito Road is being reconsidered (D.Br. at 10), but there is no doubt about the magnitude of the project and no dispute that significant environmental impacts, not analyzed in the 2003 EIS, will ensue from defendants' current plans. The volatility of defendants' plans illustrates the need to reexamine the premises of the project.

Reg. 6967 (Feb. 12, 2004)). Later that year, NNSA requested construction funding from Congress for the CMRR-RLUOB. (Ex 5: NNSA FY 2005 Congressional Budget Request ("CBR"), Weapons Activities, RTBF, 04-D-125, CMRR, at 219) On June 17, 2005 DOE issued Critical Decision 1, approving the alternative selection and the cost range for the CMRR-NF, the CMRR-RLUOB and hardware for both. (Ex 6: NNSA FY 2009 CBR, Weapons Activities, RTBF, 04-D-125, CMRR, at 298). In November 2005, NNSA entered into a design-build contract with Austin Commercial to construct the RLUOB. (Ex 7: CMRR Project Brochure, LALP-06-006, Mar. 9, 2006, CMRR mtg, Vol 1, at 16). On January 12, 2006 NNSA broke ground for the RLUOB; construction went forward without interruption. (Ex 8: http://www.lanl.gov/news/index.php/fuseaction/nb.story/story_id/7771/nb_date/2006-01-13, LANL News Bulletin, Jan. 13, 2006). In 2006, NNSA excavated the location of the CMRR-NF. (D.Br. at 16).

Defendants are now emboldened by the Magistrate's recommendation that the case ought to be dismissed for "prudential" reasons, because this massive project is in a benign design phase rather than construction or other irreversible implementations. But this is demonstrably contrary to the facts. The CMRR-RLUOB and the CMRR-NF were designed together and operate as a single facility. For example, utilities for both structures are contained in the CMRR-RLUOB. Offices in the RLUOB serve both personnel in that structure and those who work in CMRR-NF. Fuel and water tanks and emergency facilities in the RLUOB serve both facilities. A tunnel will connect the RLUOB and the CMRR-NF; this is now half built. Parts of the laboratory facilities in the RLUOB are identical to those in the NF for the purposes of training personnel and testing equipment for NF operations. Construction of the RLUOB (which is complete, although installation of specialized equipment will continue for three years) has included numerous

elements that serve the CMRR-NF. (Mello Aff. 3 ¶ 19). The RLUOB is described by defendants as a "support building for the major building of the nuclear facility." (Mello Aff. 3 ¶ 4). Thus, construction of the CMRR-RLUOB constitutes an irreversible and irretrievable commitment of resources to the construction of the CMRR-NF.

In this context defendants offer several erroneous contentions against a preliminary injunction. We address them herein:

I. Plaintiff is likely to prevail on the merits.

The 2003 EIS, the 2008 CTSPEIS, and the 2005 SWEIS all fail to analyze the impacts of the CMRR-NF as now planned. However, defendants seek to avoid jurisdiction under the Administrative Procedure Act[6], which authorizes review of a "final agency action" (5 U.S.C. § 704), asserting that they have made no decision on what to build:

> "In such a fluid environment of planning and design, Plaintiff's claims—that NNSA is violating NEPA by 'implementing' a new decision for CMRR-NF when no such decision (let alone implementation) exists and by 'predetermining' the outcome of the SEIS process when NNSA is plainly open to accommodating new information as it arises—ring hollow." (D.Br. at 8 n.2).

(Defendants ignore that they made a ROD in 2004 that has never been revoked and has been the basis for years of appropriations by Congress.) As of 2010, it is clear that another decision has been made as to the CMRR-NF of 2010—the CMRR-NF of the multi-billion-dollar price tag—and is now being carried out. The Vice President has publicly declared in a letter to the Senate Foreign Relations Committee that the Administration gives its "unequivocal support" to the CMRR-NF (Letter, Sept. 15, 2010). The White House on November 17, 2010 expressly stated its commitment to CMRR-NF:

> Today's release of updated investment plans (in an update to the 'Section 1251 Report to Congress') shows this Administration's commitment to requesting the

[6] Defendants restate arguments made in their motion to dismiss on jurisdictional grounds. (D.Br. at 6) Plaintiff respectfully refers the Court to its response brief, filed on Oct. 21, 2010.

> funding needed to sustain and modernize the nuclear complex. In particular, the Administration plans will:
>
> . . .
>
> - Increase funding by $4.1 billion increase over the next five years relative to the plan provided to Congress in May—including an additional $315 million for the Uranium Processing Facility (Tennessee) and the Chemistry and Metallurgy Research Replacement (CMRR) facility (New Mexico); and
>
> . . .
>
> The above plans provide the best current estimate of costs for the nuclear weapons stockpile and infrastructure. As the UPF and CMRR facilities are only at the 45 percent design level, the Administration recognizes that the costs could change over time. At the present time, the range for the Total Project Cost for CMRR is $3.7 billion to $5.8 billion and the range for the UPF is $4.2 billion to $6.5 billion. The Administration is committed to requesting the funds necessary to ensuring completion of these facilities. . . (Fact Sheet: An Enduring Commitment to the U.S. Nuclear Deterrent, White House, Office of the Press Secretary, Nov. 17, 2010).

Since the Administration is publicly committed to "ensuring completion of these facilities," a decision to build the CMRR-NF *has* been made.[7] The Administration's commitment was made to obtain the support of certain Senators for the New START weapons treaty, which has since been ratified, and so is irreversible. (Ex 10: Nuclear Weapons & Materials Monitor, Nov. 29, 2010, at 2-3). NNSA's program directive states: "Plan for CMRR-NF completion by 2020 with operations in 2022." (Ex 12: Holmes presentation, June 10, 2010, at 4). Under NNSA's agreement with Los Alamos National Security, LLC ("LANS"), to manage and operate LANL, it is an "essential" contract requirement that LANS "effectively manages CMRR-NF/SFE progress in support of NNSA strategic objectives." NNSA has committed to pay LANS an additional $300,000 in bonuses for achieving intermediate targets in the CMRR-NF project in 2010. (FY 2010 Performance Evaluation Plan at 40, 121). To date,

[7] Defendants have announced CMRR-NF construction as imminent and certain in several public presentations in 2010. (*e.g.,* Holmes presentation, June 10, 2010, Bretzke presentation, June 16, 2010, McKinney presentations, June 16, 2010 and Sept. 8, 2010, Ex 11: Overview of CMRR, Dec. 2, 2010)

$289.5 million has been appropriated for the CMRR-NF project, and another $168.5 million is appropriated for FY 2011. (Mello Aff. 1 ¶ 54).

Further, construction has begun; defendants admit that the CMRR-NF excavation has been dug (D.Br. at 16), and the joint facilities contained in the CMRR-RLUOB have been built. The utilities for both buildings and offices for personnel in both buildings are contained in the RLUOB, which as a structure is finished. There is also a tunnel connecting both buildings, which has been built partway to the CMRR-NF site. (Ex 13: Bachmeier, C., NNSA CMRR mtg, Mar. 14, 2007, Tr. 10). As stated, the CMRR-RLUOB contains many components that would serve the CMRR-NF, the CMRR-NF site has been partially excavated, and detailed design is continuing. These commitments likewise constitute irreversible and irretrievable commitments of resources (42 U.S.C. § 4332(2)(C)(v)) and constitute final agency action under NEPA.

DOE/NNSA's failure to issue an EIS describing the impacts of the 2010 version of the CMRR-NF and all reasonable alternatives constitutes final agency action. An agency must assess environmental impacts before an "irretrievable commitment of resources." 42 U.S.C. § 4332(2)(C)(v). Judicial review may start when the agency fails to do so. Specifically, an "alleged failure to comply with NEPA constitutes 'final agency action,' see 5 U.S.C. § 551(13)," *Catron Cnty. Bd. of Comm'r v. U.S. Fish and Wildlife Serv.*, 75 F.3d 1429, 1434 (10th Cir. 1996) (Failure to issue EIS before agency designation of critical habitat constitutes final agency action). *See New Mexico ex rel. Richardson v. Bureau of Land Mgmt.*, 565 F.3d 683, 718 (10th Cir. 2009) (Failure to issue EIS before mineral lease held a NEPA violation, since "assessment of all 'reasonably foreseeable' impacts must occur at the earliest practicable point, and must take place before an 'irretrievable commitment of resources' is made."); *Sierra Club v. U.S. Dept. of Energy,* 287 F.3d 1256, 1263, 1265 (10th Cir. 2002)(Failure to issue EIS before easement was

granted for mining road violates NEPA; "a challenge to the failure of an agency to comply with the NEPA procedure becomes ripe at the time the failure takes place"). Thus, "a person with standing who is injured by a failure to comply with the NEPA procedure may complain of that failure at the time the failure takes place, for the claim can never get riper." *Ohio Forestry Ass'n, Inc. v. Sierra Club,* 523 U.S. 726, 733 (1998).

Defendants also argue that the series of projects ongoing in the Pajarito Corridor are not "connected actions" requiring analysis in a single EIS. (D.Br. at 10-11). But the projects are admittedly "near concurrent activities" (Ex 14: Bretzke presentation, June 16, 2010, at 3; McKinney presentation, June 16, 2010, at 3; Sept. 8, 2010, at 4) that include the CMRR-NF, CMRR-RLUOB, the Nuclear Materials Safety and Security Upgrade ("NMSSUP") Phase II, the TA-55 Revitalization Project ("TRP") Phase II and III for the PF-4 Plutonium Facility, the new Radioactive Liquid Waste Treatment Facility ("RLWTF"), the Transuranic ("TRU") Waste Facility, and smaller projects. Defendants are clearly managing many aspects of their construction as a coordinated whole. These facilities depend upon and serve one another, are served by the same roads and utilities, and all of them are scaled and designed to match the size of the CMRR-NF. For example, the NMSSUP upgrade to the TA-55 security perimeter (under construction) would also protect the planned CMRR-NF, and much of it would not be built without the CMRR-NF. Defendants dispute interdependence, saying that these projects "serve other facilities, including PF-4, which has been in operation since 1978." (D.Br. at 11). However, the TA-55 Revitalization Project consists of improvements to PF-4. Thus, PF-4 is being configured to operate interdependently with the CMRR-NF, the RLUOB, the RLWTF, and the solid waste facilities as a system of interdependent facilities (Ex 15: 1251 Report at 23-24) to assess, surveil, manufacture, and refurbish plutonium weapons components (at 28), and

should be analyzed together. *Wilderness Workshop v. U.S. Bureau of Land Mgmt.*, 531 F.3d 1220, 1228 (10th Cir. 2008).

Defendants also argue that plaintiff errs in claiming that the public was not involved in post-2005 NEPA processes by means such as 40 C.F.R. § 1502.9(c)(1), which addresses EIS supplements. They refer to various meetings involving an air quality permit (D.Br. at 11-12), but these meetings have nothing to do with NEPA.

II. Plaintiff will be irreparably injured if there is no preliminary injunction:

Defendants tell the Court to ignore the long-term injuries from construction and operation of the CMRR-NF in considering a preliminary injunction. (D.Br. at 16). However, those injuries are clearly NEPA damages. Moreover, if defendants cease working on the design of the CMRR-NF and review alternatives objectively and in good faith, it will be less likely that they will complete the CMRR-NF and cause such long-term injuries. In *Davis v. Mineta,* defendants opposed a preliminary injunction of Phase I of a project, arguing that plaintiffs would be injured only by long-term damages from Phase II. The court ruled that an injunction was required, because allowing *any part* of the project to go forward there would make injury to plaintiffs more likely:

> If construction goes forward on Phase I, or indeed if any construction is permitted on the Project before the environmental analysis is complete, a serious risk arises that the analysis of alternatives required by NEPA will be skewed toward completion of the entire project. (302 F.3d at 1115 n.7)

Here, similarly, an injunction should issue to bar all current activities, because doing them would skew analysis of alternatives toward construction of CMRR-NF, which would cause long-term damages.

Defendants state frankly that, without an injunction, they plan to continue construction of the CMRR-NF. (D.Br. at 3, 15, 16). (They do not mention their current CMRR construction

designed solely to support CMRR-NF.) This would give the CMRR-NF a further advantage in NEPA analysis. Injuries from construction are in no sense speculative (D.Br. at 3, 16, 17). In *Greater Yellowstone Coal. v. Flowers,* 321 F.3d 1250 (10th Cir. 2003), the court emphasized that such injuries require an injunction: "Disturbances associated with the construction would be in the form of noise, human activities, ground disturbance, and tree removal . . . " (at 1260, 1261). Such impacts are expected here. (*See* Mello Aff. 2 ¶¶ 12-14, Sanchez Aff. ¶¶ 6-10).

Defendants repeatedly argue that injury to plaintiff must be "certain, great, actual, and not theoretical," citing *Heideman v. South Salt Lake City,* 348 F.3d 1182, 1189 (10th Cir. 2003) (D.Br. at 2, 14, 15, 16, 17). This is simply incorrect. *Heideman* is not a NEPA case. Under NEPA, "plaintiffs need only establish a sufficient likelihood of harm. . . . Proof that significant effects on the human environment will in fact occur is not essential." *Los Alamos Study Group v. O'Leary,* No. 94-1306-M Civil (Jan. 26, 1985)(slip opinion at 21).[8] Thus, the "irreparable harm requirement is met if a plaintiff demonstrates a *significant risk* that he or she will experience harm that cannot be compensated after the fact by monetary damages." *Greater Yellowstone,* 321 F.3d at 1258. "The injury of an increased risk of harm due to an agency's uninformed decision is precisely the type of injury the [NEPA] was designed to prevent." *Comm. to Save the Rio Hondo v. Lucero,* 102 F.3d 445, 448-49 (10th Cir. 1996). "In the context of a NEPA claim, the harm itself need not be immediate, as the federal project complained of may not affect the concrete interest for several years." *Sierra Club v. U.S. Dep't. of Energy,* 287 F.3d 1256, 1265 (10th Cir. 2002). *See Lujan v. Defenders of Wildlife,* 504 U.S. 555, 573 n.7

[8] Thus, the Supreme Court in *Winter v. Natural Res. Def. Council,* 129 S.Ct. 365 (2008), confirmed that the "frequently reiterated standard requires plaintiffs seeking preliminary relief to demonstrate that irreparable injury is *likely* in the absence of an injunction." (at 376). The occurrence of an increased risk of harm constitutes such injury. *Sierra Club v. Marsh,* 872 F.2d 497, 500-01 (1st Cir. 1989)("the harm consists of the added risk to the environment that takes place when government decisionmakers make up their minds without having before them an analysis (with prior public comment) of the likely effects of their decision on the environment.")

(1992)(NEPA plaintiff need not show that injury from failure to issue EIS is certain or immediate).

Defendants seek to avoid an injunction, telling the Court that their design efforts "will aid the SEIS decision-making process" (D.Br. at 2) and "will help identify and clarify potential environmental impacts in furtherance of the NEPA process" (*id.* 13 n. 6; see *id.* 20 n.12). But defendants' design work would only involve the CMRR-NF, not any alternatives, and therefore would only increase the likelihood of constructing the CMRR-NF. Design work on the CMRR-NF project is governed by DOE Order 413.3B (Nov. 29, 2010). Under that order, DOE has scheduled Critical Decisions 2 and 3 ("CD-2/3")—establishment of the Project Baseline and Start of Construction/Execution—for the Infrastructure Package[9] for March 2011. (Pl. Re-MTD Dkt. No. 10, Mello Aff. 1 ¶ 71, *citing* Bretzke presentation, June 16, 2010, at 7). At that point, "[t]he project scope should be finalized and changes . . . should be permitted only for compelling reasons . . ." (Order 413.3B, at C-6). Thus, by March 2011 the design of the Infrastructure Package will be fixed. Already, the CMRR project manager has announced on March 3, 2010, "The infrastructure package [baseline design] is done." (Mello Aff. ¶ 27). The design of successive packages (Pajarito Road, Basemat, Structure Package) would become fixed in order (Pl. Re-MTD Dkt. No. 10, Mello Aff. 1 ¶ 71, *citing* Bretzke presentation, June 16, 2010, at 7). Detailed design would proceed, but there is no room for consideration of "reasonable alternatives," such as placement of CMRR-NF functions in another location or elsewhere in the NNSA weapons complex or management of existing space and facilities to suit NNSA's needs.

This Court has ruled: "Under NEPA regulations, it is illegal for an agency to continue an activity while an EIS is being prepared unless such action 'will not prejudice the ultimate

[9] The Infrastructure Package includes a concrete batch plant, temporary utilities, site preparation laydown, site utility relocation, site excavation, soil stabilization, warehouse design/build and substation design/build. (Bretzke presentation, June 16, 2010, at 7)

decision on the program.' 40 C.F.R. § 1506.1(c); see also 10 C.F.R § 1021.211." *LASG v. O'Leary* (slip op. at 19). Defendants assert that "advancing planning and design" of the CMRR-NF before NEPA analysis will not "limit or prejudice the choice of reasonable alternatives or result in any irreparable injury." (D.Br. at 21 n.13). This statement flatly contradicts DOE's own NEPA guidance.[10] DOE guidance states that "an interim action must be one that would not adversely affect the environment nor limit the choice of reasonable alternatives" (at 1). It prohibits interim design work because it tends to exclude other alternatives and to give a schedule advantage to the agency's favorite, here the CMRR-NF:

> Proceeding with detailed design under DOE O 413.3, Program and Project Management for the Acquisition of Capital Assets, before the NEPA review process is completed (in contrast to conceptual design noted above) is normally not appropriate because the choice of alternatives might be limited by premature commitment of resources to the proposed project and by the resulting schedule advantage relative to reasonable alternatives. (at 4)

Plaintiff is clearly injured by defendants' continued work on the CMRR-NF.

III. Neither defendants nor the national interest will be injured by a preliminary injunction:

Defendants offer statements of opinion about the importance of the CMRR-NF to national security, with which defendants seek to avoid an injunction. (D.Br. at 17-20)(Snyder Aff. ¶¶ 25-32) Under Rule 702, opinion testimony may be presented by

> a witness qualified as an expert by knowledge, skill, experience, training, or education, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case. (Rule 702, Fed R. Evidence).

Mr. Snyder's education is in civil engineering. (Aff. ¶ 1) There is no indication of any training or experience in matters of national or international security policy. Neither is there any

[10] Ex 17: Guidance Regarding Actions That May Proceed During the National Environmental Policy Act (NEPA) Process: Interim Actions, DOE Memorandum, Office of NEPA Policy and Compliance, June 17, 2003.

explanation of the methods he used to evaluate risks to national security. The evidence is inadmissible under Rule 702. *103 Investors v. Square D Co.*, 470 F.3d 985, 990-91 (10th Cir. 2006); *Norris v. Baxter Healthcare Corp.*, 397 F.3d 878, 884-86 (10th Cir. 2005).

Further, the stated conclusions are not supported by facts or reasoning. The statements in Dr. Snyder's affidavit refer to certain DOE/NNSA publications. The congressional commission report, America's Strategic Posture (May 2009), refers to plans for the CMRR-NF but does not say when it is needed or specify a schedule for its construction (Ex 18: at 49-51).[11] The 2010 Nuclear Posture Review (April 2010) calls for "increased funding" for the CMRR-NF (Ex 19: at xv) and states that the CMRR-NF must be completed by 2021 (Ex 19: at 42); however, the reasons supporting this date are not stated.[12] It is known that DOE/NNSA have been working on the issue for "*more than six years*" (D.Br. at 21) and have extended the completion date from 2009 to 2023 and the construction schedule from less than three years to more than 12 years; there is no known factual basis for asserting that a year or two of further work on a project that would not bear fruit until 2023 will raise a security threat. "The lack of explanation drastically weakens, if not eliminates, any authority behind the conclusions reached by DOE," *see LASG v. O'Leary* (slip op. at 17).

Dr. Snyder states that a delay would require NNSA to "reconstitute" capabilities within the CMR, that "commitments . . . to address failing infrastructure . . . would be abrogated," that some CMR characterization and chemistry capabilities are not available, and that NNSA had assumed that CMRR-NF operations would begin in 2022. (Snyder Aff. ¶¶ 29-31). Nothing in

[11] The chair of the commission, William Perry, and a commission member, Richard Mies, are LANS directors.

[12] The latest amendment to the "Section 1251 report" now states that the CMRR-NF would be completed in 2023. (Ex 1: Nov. 2010 update to the National Defense Authorization Act of FY 2010 Section 1251 report, at 6).

this discussion states that national security cannot tolerate a postponement to accommodate the law.

Again, the broad statement that defendants' construction schedule is "critical to fulfilling our Nation's international commitments" (D.Br. at 19) fails to explain their supposed fears for our "leadership on the international stage." (*id.*) The New START Treaty has been ratified, and there is no claim that another treaty may soon come before the Senate, nor that the CMRR-NF may bear on such treaty. The supposed "connection" between CMRR-NF and the Non-Proliferation Treaty or the Comprehensive Test Ban Treaty is simply speculation. In fact, the Non-Proliferation Treaty was renewed indefinitely in 1995 and requires no further Senate action.[13] Defendants have previously described proposed projects as "critical" to national security, only to abandon them without explanation.[14]

Defendants' misplaced reliance upon *Winter v. NRDC,* 129 S.Ct. 365 (2008)(D.Br. at 19), confuses specific military training needs with ephemeral claims about international prestige.[15] It is not true that, in a debate over NEPA compliance, the defense agency always wins. (*Winter,*

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[13] Representatives of plaintiff were present at the deliberations about NPT renewal, working to educate diplomats and other participants, as plaintiff has done in other treaty deliberations.

[14] Ex 20: The Modern Pit Facility was announced contemporaneously with the CMRR and touted as critical to national security: "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 Stewrdship and Management for a Modern Pit Facility,* May 2003, at S-15, DOE/EIS-236-S2.

[15] Defendants cite other cases (D.Br. at 17-18), arguing that courts respect the province of the military, but none authorize the military to violate NEPA. *Weinberger v. Romero-Barcelo,* 456 U.S. 305 (1982), holds that injunctions under the Clean Water Act, 33 U.S.C. § 1251 *et seq.,* are governed by equitable principles; *Goldman v. Weinberger,* 475 U.S. 503 (1986), upholds the discipline of military personnel against a claim based in First Amendment principles of free exercise of religion; *Gilligan v. Morgan,* 413 U.S. 1 (1973), concerns the non-justiciability of claims seeking judicial regulation of members of the National Guard; *Citizens for Peace in Space v. City of Colorado Springs,* 477 F.3d 1212 (10th Cir. 2007), involves regulation of free speech at a NATO conference; *O Centro Espirita Beneficiente Uniao do Vegetal v. Ashcroft,* 389 F.3d 973 (10th Cir. 2004), involves a preliminary injunction of federal regulation of the importation of the drug hoasca for religious purposes; and *Nat'l Fed'n of Fed. Emp. v. Greenberg,* 983 F.2d 286 (D.C. Cir. 1993), concerns issues of security clearances.

129 S.Ct. at 378). Rather, the Court must scrutinize "specific, predictive judgments about" risks to defense interests. (*id.*) Normally, agency determinations that contain neither facts nor reasoning fail the test for "reasoned decisionmaking" under the APA. *Marsh v. Oregon Natural Res. Council,* 490 U.S. 360, 378 (1989). Here, the facts and reasoning of NNSA are not stated and its conclusions cannot be sustained.[16] Moreover, where, as here, the agency has predetermined the need to build the CMRR-NF regardless of the environmental impacts, no deference is due. *Davis v. Mineta,* 302 F.3d at 1112. Defendants' conclusory statements do not conflict with the considered view of Bob Peurifoy, experienced in nuclear weapons for almost four decades and under whom most of the country's nuclear arsenal was built, that CMRR-NF is not needed to maintain U.S. nuclear weapons for decades to come. (Peurifoy Aff. ¶¶ 10, 11).[17]

Defendants complain of the economic impacts of halting this project. (D.Br. at 19-20). Defendants apparently take the position that for plaintiff to question their right to spend $5 billion of the public funds without analyzing the project and comparing it with "all reasonable alternatives" in accordance with law, imposes an inequity and an injury upon them. But NEPA is a statutory requirement; it cannot be inequitable or injurious to require NEPA compliance. NEPA is a condition of all federal action having a significant impact on the environment and is intended to facilitate "informed decision-making." *New Mexico ex rel. Richardson v. Bureau of Land Mgmt.,* 565 F.3d 683, 703 (10th Cir. 2009). Moreover, self-inflicted injuries carry no

[16] As Judge Mechem put it in the DARHT case, "Although completing an EIS will delay moving the program into full operation, DOE has not presented the court with enough evidence amounting to a reason to fear that the delay has threatened or will threaten national security by endangering plans for the Comprehensive Test Ban Treaty. There is also no reason to believe that a delay resulting from a NEPA review will result in a loss of intellectual resources, as defendants allege." *LASG v. O'Leary* (slip op. at 30).

[17] Thus, this is not an instance of an agency relying on the valid opinions of its own experts (D.Br. at 22), because the opinions here are neither admissible under Rule 702 nor can they pass the arbitrary and capricious test, being stated without factual basis or explanation.

equities. *Davis v. Mineta,* 302 F.3d at 1116. No one could claim that DOE and NNSA rushed to build CMRR-NF in innocence of the need for NEPA compliance.

III. No bond should be required.

An injunction here should carry at most a nominal bond. In fact, a bond is unnecessary in the absence of proof showing a likelihood of compensable harm to the enjoined party. *Coquina Oil Corp. v. Transwestern Pipeline Co,* 825 F.2d 1461, 1462 (10th Cir. 1987). Here, it is clear that defendants have neglected their NEPA responsibilities, making the likelihood of plaintiff's success high and the likelihood of recovery on the bond correspondingly low. (*id.*)

Moreover, *Davis v. Mineta,* 302 F.3d at 1126, holds that a minimal bond should be considered where a party seeks to vindicate the public interest served by NEPA. That is plaintiff's role. In *LASG v. O'Leary,* this Court held:

> Posting a substantial bond on non-profit environmental groups might chill the private mechanisms of enforcement NEPA has traditionally encouraged. *See Natural Resources Defense Council v. Morton,* 337 F.Supp. 167, 169 (D.C.D.C. 1971); *Wilderness Soc'y v. Tyrrel,* 701 F.Supp. 1473, 1492 (E.D. cal. 1988), *rev'd on other grounds,* 918 F.2d 813 (9th Cir. 1990). (slip op. at 34)

Accord: People ex rel. van de Kamp v. Tahoe Reg'l Planning Agency, 766 F.2d 1319, 1325-26 (9th Cir. 1985). Further, a bond must not be so high as to deny plaintiff its right to present its claims. *Utahns for Better Transp. v. U.S. Dep't of Transp.,* 2001 WL 1739458 (10th Cir. 2001). *See also Save Our Sonoran, Inc. v. Flowers,* 408 F.3d 1113, 1126 9th Cir. 2005). A bond of any significant amount would make it impossible for a nonprofit organization like plaintiff to enforce NEPA.

IV. Defendants' SEIS will not satisfy NEPA:

After years of NEPA noncompliance, defendants ask the Court to withhold a preliminary injunction on the basis of their plan to issue a SEIS. They argue that the 2003 EIS analyzed all impacts of the CMRR-NF as then conceived, and the SEIS will analyze all changes since 2004, so that, after the SEIS, they will have satisfied all NEPA requirements. (D.Br. at 1, 2, 19, 21, 23) But, clearly, the 2003 EIS concerned a project an order of magnitude smaller and cheaper than the CMRR-NF of 2010, *all* alternatives in the 2003 EIS have been rejected, and that EIS is now irrelevant. Moreover, the decision to build the $3.7 to $5.8 billion CMRR-NF of 2010 makes reasonable a range of fresh alternatives on a similar multi-billion-dollar scale and decade-long schedule. Possible alternatives include renovation of existing facilities, using existing poorly-used capacity, reprioritizing program commitments that waste space and create schedule conflicts, and distributing some functions to other locations, as defendants have previously done. Scoping alone would require functional analysis of these options. The SEIS Notice of Intent mentions just three alternatives: the CMRR of 2004, the existing CMR, or an upgraded CMR (Ex 21: 75 Fed. Reg. 60745 (Oct. 1, 2010)). Defendants have already rejected the first two; only the last could compare with the CMRR-NF of 2010. *Many* other alternatives are not even mentioned. (Mello Aff. 3 ¶¶ 80, 83).

More fundamentally, the purpose and need of the proposal must be reconsidered in light of, *e.g.,* new information on pit lifetimes and pit production policies. (Peurifoy Aff. ¶¶ 4-10). Defendants assert in their Notice of Intent (Ex 21: 75 Fed. Reg. at 60746) that the purpose and need for a plutonium facility have not changed since 2003, but in fact both the size of the U.S. nuclear stockpile and the pit production volume required have markedly decreased. There is no

need for pit production for several decades, and without pit production the facility loses its raison d'être. (*See* Ex. 23, Von Hippel Aff. ¶¶ 5-7).

The SEIS process is also defective because defendants insist on continuing their design work and construction of the CMRR-NF. This Court stated in the DARHT case:

> "The problems associated with starting an EIS *in medias res* are further compounded as DOE continues construction of the DARHT facility. Work progresses, and the risk of harm increases, as certain alternatives become less workable." *LASG v. O'Leary* (slip op. at 27).

In that case, the Court solved the problem by issuing a preliminary injunction.

Defendants' insistence on continuing work on CMRR-NF shows that they have predetermined the outcome of NEPA analysis. An agency which "prejudge[s] the NEPA issues," produces "an environmental analysis . . . tainted with bias." *Forest Guardians v. U.S. Fish and Wildlife Serv.,* 611 F.3d 692, 713 (10th Cir. 2010). Predetermination occurs when an agency

> "irreversibly and irretrievable commits itself to a plan of action that is dependent upon the NEPA environmental analysis producing a certain outcome, before the agency has completed that environmental analysis—which of course is supposed to involve an objective, good faith inquiry into the environmental consequences of the agency's proposed action." (*id.* 714) *See Davis v. Mineta,* 302 F.3d 1104 (10th Cir. 2002); *Metcalf v. Daley,* 214 F.3d 1135 (9th Cir. 2000).

Defendants argue that predetermination only occurs when an agency prejudges the environmental impacts of its plans, not when the agency decides that its project is necessary and urgent. (D.Br. at 12-13). Defendants' formulation makes no sense and finds no support in NEPA. Defendants are plainly implementing the CMRR-NF project without completing the required NEPA analysis,[18] showing that they have decided *both* that the CMRR-NF is necessary

[18] Predetermination is not the same as a preferred alternative. (D.Br. at 13). A preferred alternative is the NEPA term for an alternative that a federal agency may favor, while keeping an open mind during the NEPA process. *Forest Guardians v. U.S. Fish and Wildlife Serv.,* 611 F.3d 692, 712-19 (10th Cir. 2010). In such a case, to avoid a finding of predetermination, the "hard look mandated by Congress and required

and urgent, that available alternatives have been considered, *and* that the environmental consequences are irrelevant. Defendants' immediate plan of action includes making contracts, issuing directives, carrying out planning, and doing construction. These actions plainly amount to "irreversible and irretrievable commitments of resources." (42 U.S.C. § 4332(2)(C)(v)) The outcome of the SEIS process is predetermined, and it cannot produce a valid decision. Thus, the Court should not assume that defendants will quickly bring legality to their NEPA posture, because the SEIS cannot do that.

Conclusion

Defendants are deep in default under NEPA. No NEPA analysis of the planned CMRR-NF or its reasonable alternatives exists. NEPA requires them to faithfully examine the reasonable alternatives and, only thereafter, to commit to a choice. 42 U.S.C. ¶ 4332(2)(C). They have failed to do this. Irreparable harm to plaintiff and the environment is likely from defendants' continued design, construction and operation of the CMRR-NF. Defendants have committed themselves to a specific alternative without conducting the required NEPA analysis, and they have predetermined the outcome of future NEPA analyses. Preliminary relief should be granted to preserve the status quo pending resolution of this case on the merits.

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by NEPA must be timely, and it must be taken objectively and in good faith, not as an exercise of form over substance, and not as a subterfuge designed to rationalize a decision already made." (at 712) But there emphatically is predetermination "when an agency irreversibly and irretrievably commits itself to a plan of action that is dependent upon the NEPA environmental analysis producing a certain outcome, before that agency has completed that environmental analysis" (at 714). An agency which "predetermines the NEPA analysis by committing itself to an outcome" has probably "failed to take a hard look at the environmental consequences of its action due to its bias in favor of that outcome and, therefore, has acted arbitrarily and capriciously." (*id.* 713)

Respectfully submitted,

[*Electronically Filed*]

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Certificate of Service

I hereby certify that on this 14th day of January, 2011, I filed the foregoing PLAINTIFF'S REPLY MEMORANDUM ON MOTION FOR PRELIMINARY INJUNCTION electronically through the CM/ECF System, which caused the following parties or counsel of record to be served by electronic means as more fully reflected in the Notice of Electronic Filing.

John P. Tustin

Andrew A. Smith

/s/ Thomas M. Hnasko
Thomas M. Hnasko

November 2010 Update to the National Defense Authorization Act of FY2010 Section 1251 Report
New START Treaty Framework and Nuclear Force Structure Plans

1. Introduction

This paper updates elements of the report that was submitted to Congress on May 13, 2010, pursuant to section 1251 of the National Defense Authorization Act for Fiscal Year 2010 (Public Law 111-84) ("1251 Report").

2. National Nuclear Security Administration and modernization of the complex – an overview

From FY 2005 to FY 2010, a downward trend in the budget for Weapons Activities at the National Nuclear Security Administration (NNSA) resulted in a loss of purchasing power of approximately 20 percent. As part of the 2010 Nuclear Posture Review, the Administration made a commitment to modernize America's nuclear arsenal and the complex that sustains it, and to continue to recruit and retain the best men and women to maintain our deterrent for as long as nuclear weapons exist. To begin this effort, the President requested a nearly 10 percent increase for Weapons Activities in the FY 2011 budget, and $4.4 billion in additional funds for these activities for the FY 2011 Future Years Nuclear Security Plan (FYNSP).[1] These increases were reflected in the 1251 report provided to Congress in May 2010.

The Administration spelled out its vision of modernization through the course of 2010. In February, soon after the release of the President's budget, the Vice President gave a major address at the National Defense University in which he highlighted the need to invest in our nuclear work force and facilities. Several reports to Congress provided the details of this plan, including: NNSA's detailed FY 2011 budget request, submitted in February; the strategy details in the *Nuclear Posture Review* (NPR) (April); the 1251 report (May); and the multi-volume *Stockpile Stewardship and Management Plan (SSMP)* (June). Over the last several months, senior Administration officials have testified before multiple congressional committees on the modernization effort.

The projections in the Future Years Nuclear Security Plan (FYNSP) that accompanied the FY 2011 budget submission and the 1251 report by the President are, appropriately called, 'projections.' They are not a 'fixed in stone' judgment of how much a given project or program may cost. They are a snapshot in time of what we expect inflation and other factors to add up to, given a specific set of requirements (that are themselves not fixed) over a period of several years. Budget projections, whether in the FYNSP and other reports, are evaluated each year and adjusted as necessary.

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[1] After adjustment for the transfer of the Pit Disassembly and Conversion Facility from the Weapons Activities account to the Defense Nuclear Nonproliferation Account the increase over the FYNSP is actually $5.4 billion.

Secretary of Energy is convening his own review, with support from an independent group of senior experts, to evaluate facility requirements.

The overriding focus of this work is to ensure that UPF and CMRR are built to achieve needed capabilities without incurring cost overruns or scheduling delays. We expect that construction project cost baselines for each project will be established in FY 2013 after 90% of the design work is completed. At the present time, the range for the Total Project Cost (TPC) for CMRR is $3.7 billion to $5.8 billion and the TPC range for UPF is $4.2 billion to $6.5 billion. TPC estimates include Project Engineering and Design, Construction, and Other Project Costs from inception through completion. Over the FYNSP period (FY 2012-2016) the Administration will increase funding by $340 million compared with the amount projected in the FY 2011 FYNSP for the two facilities.

At this early stage in the process of estimating costs, it would not be prudent to assume we know all of the annual funding requirements over the lives of the projects. Funding requirements will be reconsidered on an ongoing basis as the designs mature and as more information is known about costs. While innovative funding mechanisms, such as forward funding, may be useful in the future for providing funding stability to these projects, at this early design stage, well before we have a more complete understanding of costs, NNSA has determined that it would not yet be appropriate and possibly counterproductive to pursue such a mechanisms until we reach the 90% design point. As planning for these projects proceeds, NNSA and OMB will continue to review all appropriate options to achieve savings and efficiencies in the construction of these facilities.

The combined difference between the low and high estimates for the UPF and CMRR facilities ($4.4 billion) results in a range of costs beyond FY 2016 as shown in Figure 3. Note that for the high estimate, the facilities would reach completion in FY 2023 for CMRR and FY 2024 for UPF. For each facility, functionality would be attainable by FY 2020 even though completion of the total projects would take longer.

Table 2. Continued

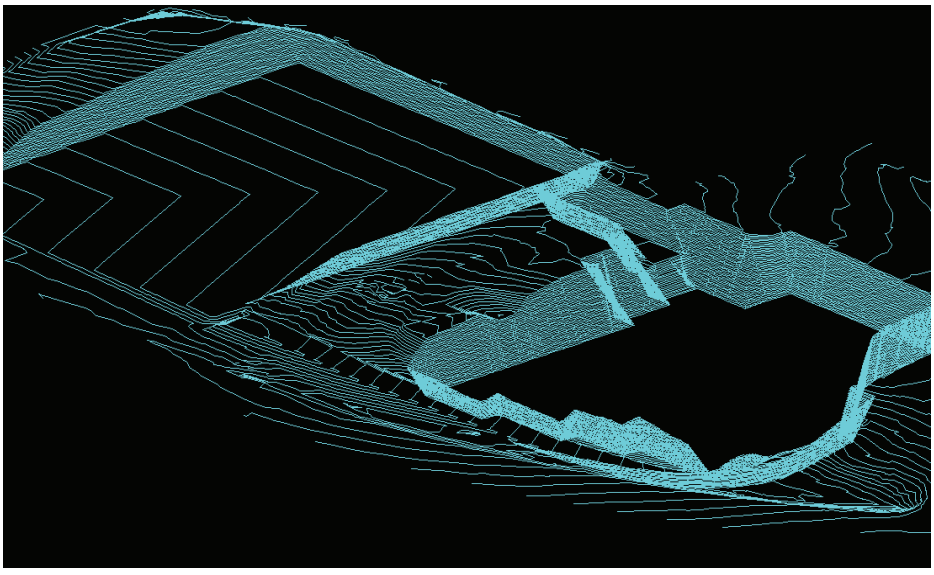
Resource	*CMRR EIS Basis for Impact Analyses*	*Current CMRR Project Plans*	*Potential Consequences of Current CMRR Project Plans*[1]
Natural Gas	Construction (NF & supporting structures): • No information provided Operations (RLUOB and NF): • No information provided	Construction (NF & supporting structures): • None Operations (RLUOB and NF): • 140 Mm cu ft/yr, 12% increase in usage (use of natural gas is restricted to the utility building attached to the RLUOB to supply boilers and emergency generators)	The CMRR EIS did not project the amount of natural gas needed for construction or operations at the RLUOB and CMRR-NF. Natural gas use is bounded by 2008 SWEIS; within site-wide limits.
Geology and Soils			
	Construction[11]: • NF: Excavate to 50-ft depth; 117,000 cu yds of material removed • Tunnels & Trenching: Excavate to 50-ft depth; 122,300 cu yds of material removed Operations: Not expected to impact geologic and soil resources. Facilities are sited to minimize risk from geologic hazards including earthquakes. Note: The potential to encounter contaminated soils is discussed below under "Potential Release Sites."	Construction: • NF: Excavate to 125-ft depth, between 375,000 and 500,000 cu yds of material removed • Tunnels & Trenching: Excavate to 50-ft depth; 113,500 cu yds of material removed This represents an increased depth of excavation (additional 75 ft) and increased material removed (additional 249,200 to 374,200 cu yds) compared to the CMRR EIS analysis. The excavated material (spoils) will be beneficially reused on other projects: Approximately 153,000 cu yds of the material will be reused as fill for other CMRR construction-related projects (such as for grading or fill to prepare laydown areas); the remaining amount will be staged at a LANL-wide materials staging area for future beneficial reuse on other LANL projects.	There will be some impacts to local geology as a result of the additional disturbance of subsoil during the NF construction. This additional disturbance is required for the NF construction to meet the seismic protection requirements (see discussion in Section 3). As stated in the CMRR EIS, the building must be constructed to minimize risks to workers, public, and environment from geologic hazards, including earthquakes. The planned and proposed activities meet this requirement. The magnitude and consequences of impacts related to the CMRR Project's total disturbance of subsoil are small in comparison to those bounded under the MDA remediation actions covered by the 2008 SWEIS ROD; that analysis considered the impacts associated with removal of up to 2.5 million cubic yards of crushed tuff and other material (DOE 2008a).

CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

CMRR Public Meeting, March 14, 2007

Volume 3

Los Alamos National Laboratory
Los Alamos, New Mexico



Los Alamos NATIONAL LABORATORY EST. 1943

NNSA

LA-UR-07-3583

[ROSEMARY ROMERO]
For the excavated sites?

[SCOTT KOVAC]
Yes, for both of those excavated sites.

[ROSEMARY ROMERO]
You could probably go to that slide,

[CRAIG BACHMEIER]
It's approximately about 210 thousand yards, total, with, about 90 thousand yards coming out of the nuclear facility site and about 120 thousand coming out of the RLUOB site.

[SCOTT KOVAC]
And, could you describe the, um, testing that you did on that soil before you shipped [it] off? Did you find any contaminated soil in, in that area?

[CRAIG BACHMEIER]
No. It was evaluated by the functional specialist at the Laboratory, and there were no documented uses of that area and as a result, um, for example, it's not in the database for previously used areas and things like that.

[SCOTT KOVAC]
So it wasn't actually tested? You just went by that—

[CRAIG BACHMEIER]
We did not do any specific sampling of the soil.

[SCOTT KOVAC]
Nobody sampled the soil. Okay. Even though, like right next to it is MDA [Material Disposable Area] C. Right. Okay. Um, has the—

[JONI ARENDS]
And [TA-]55.

[SCOTT KOVAC]
Well, okay. The, ah, has the, ah, preliminary seismic hazard analysis been completed yet? The new one? That's due out soon? Has that been done yet?

[CRAIG BACHMEIER]
No. Um, there's been a lot of work completed on that, and it's nearing completion, but the way that information is released, it comes through our Laboratory engineering standards before it's actually implementable on projects, and that has not happened yet.

[TIM NELSON]
So— This is Tim Nelson here. You are talking about the institutional probabilistic seismic hazard analysis?

LANL Construction Corridor

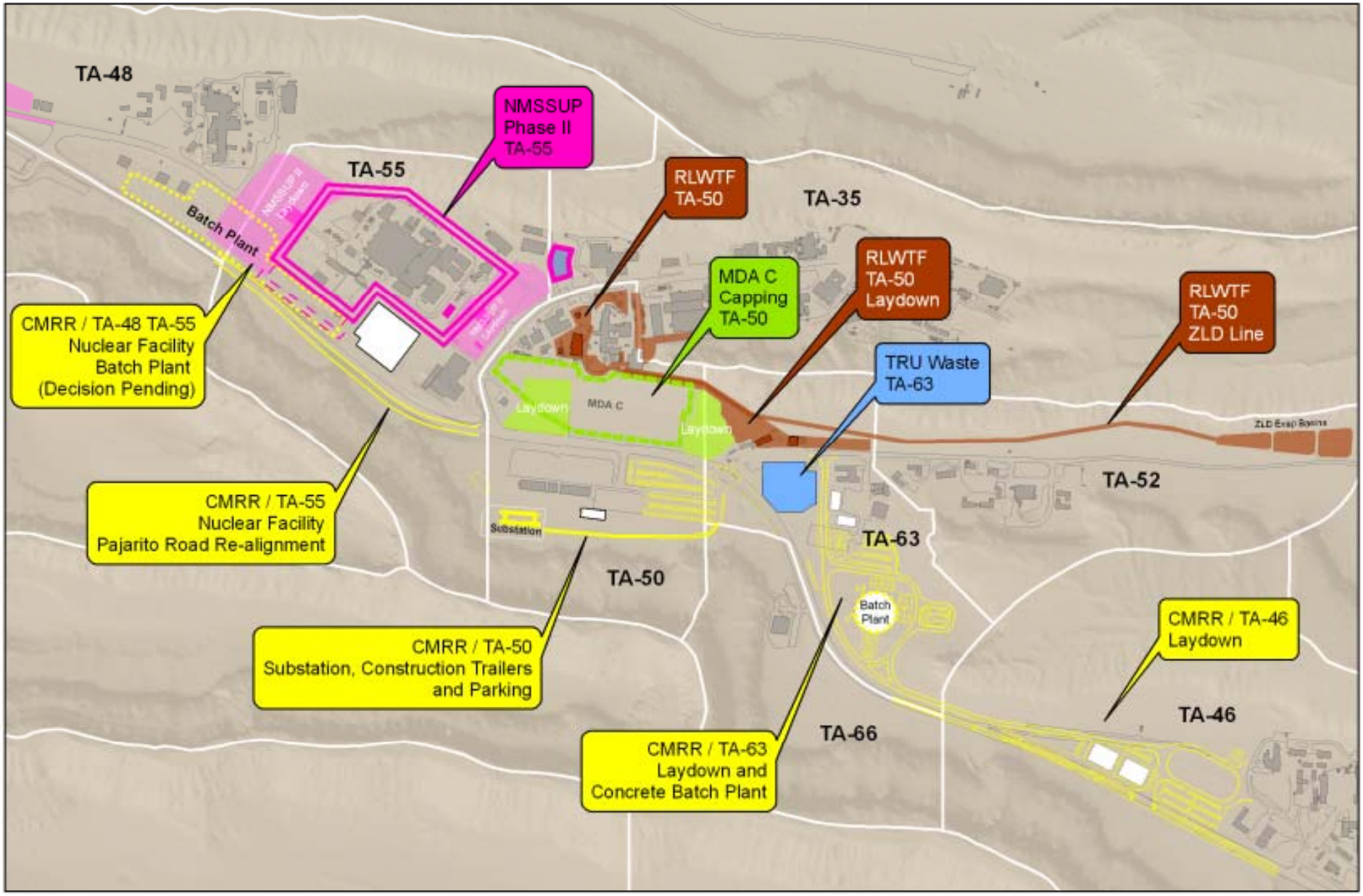
Tom McKinney, Associate Director

Project Management and Site Services Directorate

Los Alamos National Laboratory

September 8, 2010

LA-UR 10-05995



Pajarito Corridor Project Planning / 2010 - 2020

Los Alamos NATIONAL LABORATORY

NNSA

August 12, 2010

N W E S

0 365 730 1,460 2,190 2,920 Feet

Slide 5

04-D-125, Chemistry and Metallurgy Research Facility Replacement Project, Los Alamos National Laboratory
Los Alamos, New Mexico

Significant Changes

- The construction line item funding profile has been modified to reflect the FY 2004 Appropriation that reduced funding by $10,500,000, as well as a reduction of $51,000,000 to what had been planned for FY 2005. The large reduction to the FY 2005 request was necessary to address other high priority NNSA requirements (e.g., implementation of the new Design Basis Threat). The reductions in FY 2004-05 impact the out-year funding profile and schedule for this project, and as a result the project will be re-evaluated and revised during FY 2004. The changes will be reflected in the FY 2006 request.

  Further, as part of the re-evaluation of this project, the National Nuclear Security Administration (NNSA) will conduct an analysis of the Total Estimated Cost/Total Project Cost (TEC/TPC), that are being developed as the planning phase continues. The analysis is required in order to validate early estimates that indicate that the TEC and TPC could be at the higher end of the pre-conceptual baseline range, which is higher than the estimate in Section 1. Updated estimates will be provided in the FY 2006 request.

  Finally, preliminary schedule data for the project has been revised to be consistent with continued project development; however, the overall project schedule will be adjusted, as necessary, as part of the NNSA re-evaluation of the project and any changes will be reflected in the FY 2006 request.

- The cost of project engineering and design (PE&D) for preliminary design for this project has increased by $10,000,000. A full (preliminary and final) Design-Build (D-B) approach for most project activities was the basis for the initial PE&D estimate. The reduction in line item funding in FY 2004-05 has required an alternative approach in order to minimize overall schedule delays. The revised approach will utilize separate preliminary designs, where possible, for all project activities and will rely on Los Alamos National Laboratory (LANL) to conduct more preliminary design work, rather than procuring these services under full D-B contracts. The PE&D funding request in FY 2005 will support continuation of preliminary design and engineering work for all project elements.

- FY 2004 line item construction funding will be used to implement the D-B acquisition of the Radiological Laboratory/Utility/Office Building (RLUOB) component of the Chemistry and Metallurgy Research Facility Replacement (CMRR). The FY 2005 request for construction funds will support continuation of the RLUOB and initiation of the D-B activities for Special Facility Equipment (SFE) - Gloveboxes. Initiation of the Security Category I, Hazard Category 2 Nuclear Facility is planned for FY 2006.

04-D-125, Chemistry and Metallurgy Research Building Replacement (CMRR) Project, Los Alamos National Laboratory (LANL), Los Alamos, New Mexico Project Data Sheet (PDS) is for Construction

1. Significant Changes

The most recent DOE O 413.3A approved Critical Decisions (CD) are CD-1 for the Nuclear Facility (NF), Special Facility Equipment (SFE), and Radiological Laboratory/Utility/Office Building (RLUOB) phases of the project, and CD-2/3A for the RLUOB phase of the project. The CMRR CD-1 was approved on June 17, 2005 with a preliminary cost range of $745,000,000 - $975,000,000, although costs could be greater. Subsequently, the CD-2/3A for the RLUOB was approved on December 5, 2005, with a Total Project Cost (TPC) of $164,000,000. The NF and SFE are continuing with final design, while the Radiological Laboratory/Utility/Office Building is being executed with a design build contract. The TPC of the RLUOB is part of the overall CMRR Project preliminary cost range.

Based on continued examination of the project and recent, industry-wide experience related to the increases in the cost of construction of comparable facilities, the estimate for construction of the Nuclear Facility at CMRR is now viewed to be significantly higher. Initial estimates place the revised TPC above $2,000,000,000. A final cost estimate will be established when the Nuclear Facilities performance baseline is established at CD-2, which is estimated to occur during FY 2010. Funding profile reflected in Section 5 for the inclusive period of FY 2010 to FY 2013 is a funding placeholder for the construction which will be needed for the plutonium facility. This decision will result from the NEPA and PEIS process the NNSA is presently conducting.

A Federal Project Director with certification level IV has been assigned to this project.

This PDS is an update of the FY 2008 PDS.

CMRR Project

CMRR Project: An Overview

The Chemistry and Metallurgy Research Replacement (CMRR) Project primarily supports Defense Program activities at Los Alamos National Laboratory (LANL). Costing $745M to $975M over 8 to 12 years, construction is planned in three phases:

A Radiological Laboratory Utility Office Building (RLUOB)

B Special facilities equipment, including long-lead equipment and instrumentation

C Nuclear Laboratory Facility

The CMRR Project will provide the capabilities the National Nuclear Security Administration (NNSA) and LANL need to continue the nuclear mission to maintain and certify the US nuclear stockpile through work in the following areas:

- Pit manufacturing, surveillance, and disassembly
- Enhanced surveillance
- Milliwatt radioisotope thermoelectric generator surveillance
- Retired stockpile component processing
- Aboveground subcritical experiments
- Special nuclear material readiness and materials storage
- Advanced design/production technologies
- Dynamic materials properties
- Material certification in a hostile environment
- Arms control and nonproliferation
- Advanced nuclear fuels

These analytical chemistry, materials characterization, and actinide research and development capabilities, currently housed in the 550,000 sq ft CMR building, will move to the new CMRR facilities as they are completed.

Phase A:

Radiological Laboratory Utility Office Building (RLUOB)

Phase B:

Special facilities equipment, including long-lead equipment and instrumentation

Phase C:

Nuclear Laboratory Facility

Phase A: Radiological Laboratory Utility Office Building

The RLUOB will house radiological laboratory space; a training center, 4 classrooms, and 2 nonradiological training simulation labs; a utility building that supports all CMRR Project facilities; and office space to support 350 personnel in segregated (cleared and uncleared) areas.

An Entrance Control Facility will connect a tunnel from the RLUOB to the Nuclear Laboratory Facility.

The RLUOB also will have a Facility Incident Command Center, an operations center, and space for future support of the existing Technical Area 55 Plutonium Facility, PF-4.

A design-build contract, a procurement method already successfully demonstrated at LANL, was issued to Austin Commercial Contractors, LP, of Dallas, TX, in November 2005.

The proposed RLUOB total project cost performance baseline is $164M (contract life is 1095 calendar days). Approximately 300 construction workers will be employed during the RLUOB contract.

Phases B and C

Preliminary design work is under way on Phases B and C. Construction work for Phase C is scheduled to begin in 2008 and is expected to be complete by 2013.

NewsBulletin

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News (7/09 to present)
News Releases (7/09 to present)
News Releases archive (pre-7/09)

Laboratory breaks ground on new CMRR building

January 13, 2006

Sen. Pete Domenici, R-N.M., center, used an American flag to signal to a backhoe operator to begin breaking ground on Thursday for the Lab's new Radiological Laboratory Utility Office, phase one of the planned Chemistry and Metallurgy Research Replacement (CMRR) project at Technical Area 55. Also shown are left to right, Joel Leeman of the Principal Associate Director for Nuclear Weapons Program (PADNWP) Office, Tim Nelson of CMRR, Tom D'Agostino, deputy administrator for defense programs with the National Nuclear Security Administration, Laboratory Director Bob Kuckuck, Steve Penson of the Austin Corp., the general contractor for phase one and Don Cobb, acting deputy Laboratory director.

Story Tools

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Credit: LeRoy N. Sanchez, Public Affairs

LANLSCIENCE

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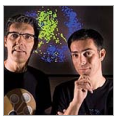
Library Researchers Make Searching More Predictable

EXHIBIT 8

CHEMISTRY AND METALLURGY RESEARCH REPLACEMENT FACILITY PROJECT LOS ALAMOS NATIONAL LABORATORY

CERTIFICATION REVIEW

REPORT TO CONGRESSIONAL DEFENSE COMMITTEES

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

SEPTEMBER 2009

ADMIN. CONTINUES TO PRESS FOR LAME-DUCK 'NEW START' RATIFICATION

The Obama Administration and Sen. Jon Kyl (R-Ariz.) appear to be headed for a confrontation on the New Strategic Arms Reduction Treaty after the Thanksgiving holiday as Administration officials have ratcheted up efforts over the last week to gather votes for the arms control pact without the support of the GOP's leading voice on nuclear weapons issues. The apparent shift in strategy comes after the Administration outlined an updated pledge to spend more than $85 billion on the National Nuclear Security Administration's weapons program over the next decade, an increase of more than $5 billion from what the Administration said was needed earlier this year and $15 billion more than had been budgeted during the Bush Administration.

That offer, however, was not enough to convince Kyl to lend his support to the treaty during the post-election Senate session. Citing "complex and unresolved issues" related to the treaty and modernizing the nation's nuclear weapons complex, Kyl surprised the Administration by releasing a statement indicating he did not think the treaty should be voted on during the lame-duck session, causing the Administration to move quickly to outline its level of cooperation with the senator. During separate briefings with policy analysts and select reporters, the White House circulated a list of 30 interactions between Administration officials and Kyl or his staff over the last 15 months, including a Nov. 17 phone conversation between Kyl and Vice President Joe Biden.

The Administration also circulated pages of questions that had been answered for Kyl as it tried to illustrate a long-standing level of cooperation with the senator. At the same time, however, discussions between the Administration and Kyl continued last week, with Biden suggesting after his conversation with Kyl that there was still hope that the senator could support the treaty during the lame-duck session. "I think they were really surprised when he said there shouldn't be a vote now," former NNSA Administrator and original START Treaty negotiator Linton Brooks told *NW&M Monitor*. "It's pretty clear the Administration is making a strong push. If it doesn't work, it will have consequences."

Biden: 'There's Been No Delay Here'

In a briefing with reporters Nov. 19, Biden denied that the Administration had waited too long to deliver information to Kyl, thus jeopardizing a vote on the treaty in the lame-duck session. "That is not true, there's been no delay here," Biden said, according to a *Foreign Policy* magazine blog. "The reason we didn't push earlier is that the Republican leadership said to us, 'Look, Jon Kyl is the point guy.' Literally, [Senate Majority Leader Mitch] McConnell said Jon Kyl, which was kind of a kick in the teeth to [Senate Foreign Relations Committee ranking member] Dick [Lugar], but Jon Kyl, he's the guy, unless you get Jon … ."

Biden appeared to make the case that the Administration had gone above and beyond what was expected to answer Kyl's concerns, which included pushing for full funding of the Administration's $7.01 billion request for the NNSA's weapons program in the stopgap funding measure approved by Congress in late September, increasing its modernization pledge by updating its plan to upgrade the weapons complex and arsenal, and accelerating the FY2012 budgeting process by several months. "Jon did a really good job of asking for a whole lot of information and commitments," Biden said. "Jon then came back and asked for something that I don't ever recall has been done before, and that is ask us to go on the line now, which we have, on the Fiscal Year 2012 budget and make it clear what we were going to do, to the point where I've already got to the Appropriations Committee and said, 'This is what I expect.' "

Obama Continues Pressing for Ratification

In reductions to be made over the next seven years, the treaty would cap the size of the U.S. and Russian strategic deployed stockpiles at 1,550, down from the 1,700-2,200 range allowed by the Moscow Treaty, and would limit the number of deployed and reserve strategic delivery vehicles to 800 with a maximum of 700 missile launchers and

Nuclear Weapons & Materials Monitor is a weekly (50 issues a year) publication covering all the activities of the U.S. National Nuclear Security Administration, including the stockpile stewardship program, complex transformation and disposition of weapons grade materials. Also includes insight on programs with Russia and other nuclear states.

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Weapons Complex Monitor ■ *Nuclear Weapons & Materials Monitor* ■ *RadWaste Monitor* ■*Nuclear New Build Monitor* ■ *GHG Transactions & Technologies*

EXHIBIT 10

bombers allowed to be deployed at one time. It would also reestablish verification and transparency measures that have been lacking since the START Treaty expired Dec. 5. The treaty will last 10 years.

Obama has continued to be outspoken in pushing for ratification of the treaty during the lame-duck session, mentioning it during his weekly radio address to the nation and again at the NATO Lisbon Summit Nov. 19. "This is a national security imperative for the United States," he said at the summit. "We need to ratify New START to put in place on-the-ground inspections of Russian nuclear arsenals, to reduce our deployed weapons and launchers, and to build on our cooperation with Russia—which has helped us put pressure on Iran and helped us to equip our mission in Afghanistan." The treaty also received support from foreign ministers at the meeting and NATO Secretary General Anders Fogh Rasmussen. "A delay of the ratification of the [New] START Treaty would be damaging to security in Europe," Rasmussen said. "I strongly encourage all parties involved to do their utmost to ensure an early ratification of the START treaty."

Administration Pushing On

Foreign Policy also quoted an unnamed Administration official that spoke at the Biden briefing who appeared to reinforce the idea that the Administration was pushing for a vote without Kyl's support, mirroring statements made previously by Obama and White House spokesman Robert Gibbs. "There's a number that we need to get to get this passed. The question is, if Senator Kyl decides he is not able to support it now, whether a number of other Republicans would come on board and support the treaty," the official was quoted as saying. "We believe that at the end of the day we will have made that so clear, the broader argument on the merits of treaty… can carry the day with enough Republican senators to get this passed."

Skirting Kyl, however, has proved to be a difficult task, according to policy analysts and Congressional aides. There have been few signs that even moderate Republicans like George Voinovich (R-Ohio), Olympia Snowe (R-Maine), Susan Collins (R-Maine) and Robert Bennett (R-Utah) have moved toward supporting the treaty. Sen. Bob Corker (R-Tenn.), who voted for the treaty when the Senate Foreign Relations Committee passed the resolution of ratification in September, has questioned whether there is time to vote for the treaty during the lame-duck session. "There is literally no reason on policy grounds to vote against the treaty for anybody. The question is all politics," said Stephen Young, a nuclear weapons expert with the Union of Concerned Scientists, "and the problem I think for Corker or Snowe is they fear if they vote for the treaty they'll face a challenge from the Tea Party in two years. … It's not hopeless, but it's no easy sell."

Brooks suggested that if the Administration fails in its push for ratification, there could be dire consequences, both for Obama internationally and for the modernization funding planned for NNSA's weapons program. "The more the President pushes for this, the more he will look impotent internationally if he can't pull it off," Brooks said. "This is a fairly high risk strategy." On the weapons program funding, Brooks said there is a risk that the NNSA funding could still face pressure from Congressional Democrats if the treaty isn't ratified. "A lot of us would like to see this happen, because first of all, as you know, I think START is the right thing to do for the country, but I also think that START is a mechanism for some important improvements in the nuclear security enterprise and it would be a shame to come this close and lose it." Brooks added: "It's a little bit like playing chicken. Chicken works, but it depends on somebody being willing to pull their car aside at the last minute. We'll just have to see."

Bond Speaks Out Against Treaty

The few signs coming out of the Senate have been against the treaty. In a speech on the Senate floor before the chamber adjourned for the Thanksgiving break, retiring Sen. Christopher "Kit" Bond (R-Mo.) outlined his opposition to a treaty he called "overhyped" and "oversold." Bond, who is the ranking member of the Senate Intelligence Committee, argued in his Nov. 18 speech that the treaty does not give the United States the ability to adequately verify the proposed reductions in the treaty. "I have reviewed the key intelligence on our ability to monitor this treaty and heard from our intelligence professionals," Bond said. "There is no doubt in my mind that the United States cannot reliably verify the treaty's 1,550 limit on deployed warheads."

—Todd Jacobson

UNCERTAINTY WITH NEW TECHNOLOGIES DRIVING UPF COST INCREASES, GAO SAYS

As funding for modernization of the nuclear weapons complex continues to dominate debate over the New Strategic Arms Reduction Treaty with Russia, a new Government Accountability Office report is shedding new light on the technical challenges that are driving multi-billion-dollar cost increases at a project that is at the center of the modernization effort—the planned Uranium Processing Facility at Y-12. The report, *National Nuclear Security Administration's Plans for Its Uranium Processing Facility Should Better Reflect Funding Estimates and*

Overview of CMRR
Chemistry and Metallurgy Research Facility Replacement Project

December 2, 2010

Los Alamos NATIONAL LABORATORY EST. 1943

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NNSA

EXHIBIT 11

Chemistry and Metallurgy Research Replacement (CMRR) Project

CMRR Project Update

Los Alamos, New Mexico
June 10, 2010

Rick Holmes, *LANL*
CMRR Division Leader

Los Alamos NATIONAL LABORATORY
NNSA National Nuclear Security Administration

CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

LA-UR 10-01115

Project Overview

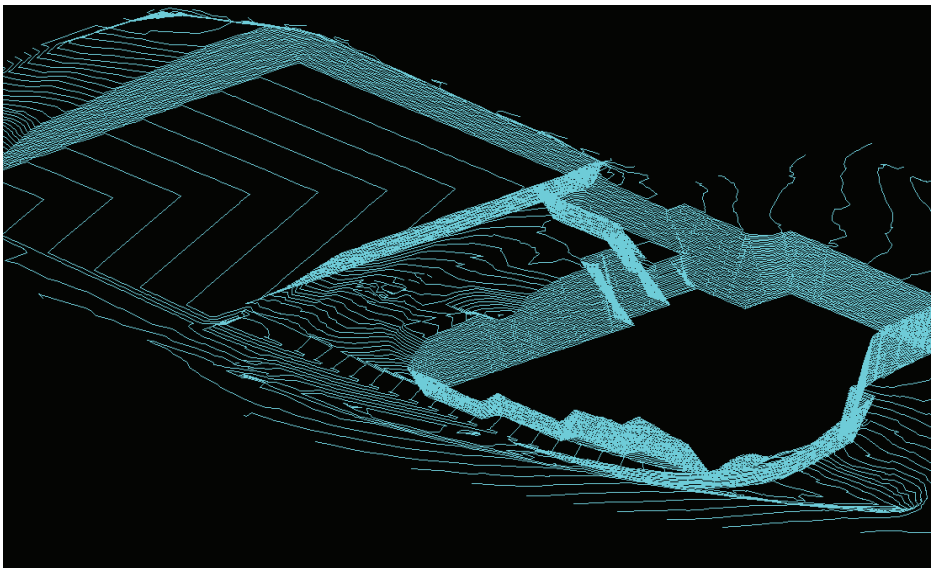
- Budget Authority – $97M for FY10
- President's Request – $225M for FY11
- NNSA Headquarters Program Direction
  - Complete RLUOB within approved performance baseline **– Complete**
  - Complete REI according to performance baseline **– Ongoing/Ahead of schedule**
  - Plan for CMRR NF completion by 2020 with operations in 2022
- NF Final Design
  - Technical Safety Strategy ready for Definitive Design
    - **NNSA and DNFSB validation of nuclear safety approach**
  - Executive and Congressional support
  - Nuclear Posture Review – Published

CHEMISTRY & METALLURGY RESEARCH REPLACEMENT

CMRR Public Meeting, March 14, 2007

Volume 3

Los Alamos National Laboratory
Los Alamos, New Mexico



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NNSA

LA-UR-07-3583

getting a lot of mileage out of the dirt that's coming out of this facility. In addition, the institution is making some traffic safety modifications to Parajito Road and eventually is planning to upgrade the electrical reliability of this area with a new substation. Our project has taken a power line that's—ran across the site and we relocated that. So you might've some of that activity if you've been in that area. It's now below ground, and provides us with more access to the site, and improves the electrical safety in the area.

[Slide 14]
[CRAIG BACHMEIER]
Next, this slide is a topographic image, that, a perspective that shows the excavations that I've been talking about. If you are not familiar with these types of drawings, these lines indicate the degree of slope on the land. So an area that has lots of lines is very steep and areas that have wide spacing are actually relatively flat. And so again, these are very steep walls, about 75% in terms of grade. Ahm, around three sides of that. And the contractor's started to move equipment into this area. And at the same time we are also using this area to do some additional geotechnical mapping of these walls that provides structural information for our foundation designs. Um, this area is going to stay. This is—

[UNIDENTIFIED PERSON]
[Brief inaudible comment]

[CRAIG BACHMEIER]
And this excavation is where the new facility is going to be. Hopefully this map parallels the previous one I showed. Um, the nuclear facility, when it's done, well, this is now roughly at the grade of the highway. When it's finished, um, that will be as much as another 30 feet below grade in terms of total depth of excavation. Comparable to the RLUOB site, which is actually gonna be about 25 feet deeper than the road is. And, um, I guess the other feature that's visible in this drawing is this excavation that's connecting the two sites. And that represents a tunnel that will allow personnel to go in between the two buildings. And it'll be controlled by an entrance control facility within the RLUOB.

[CRAIG BACHMEIER]
Um, but again, this what I get to spend most of my day on right now.

[Slide 15]
[CRAIG BACHMEIER]
This is our project schedule. Um, in the previous meeting we, uh, Tim [Nelson], spent time going over the schedule for the overall CMRR project. This is a blowup of the schedule just for Phase A. Um, again, we went through our Critical Decision process, and I'll start with CD-2, -3 which happened in late October of '05. We followed that with our contract award to Austin Commercial. Again, we went into QA [quality assurance] for about three months developing a QA program. Went into design. We've been in design now for something like 12 months. We're finishing up that design at this time. And we have started basic construction activities at this point, which is just clearing the site and getting things ready for the primary activities. As I said, concrete work is scheduled to start in the April time frame. And you'd see significant structural steel work taking place by late summer. And overall the construction phase is scheduled to complete in January of 2009. And that'll be followed by a readiness assessment phase, um, where we go through and demonstrate that the facility

Pajarito Construction Activities

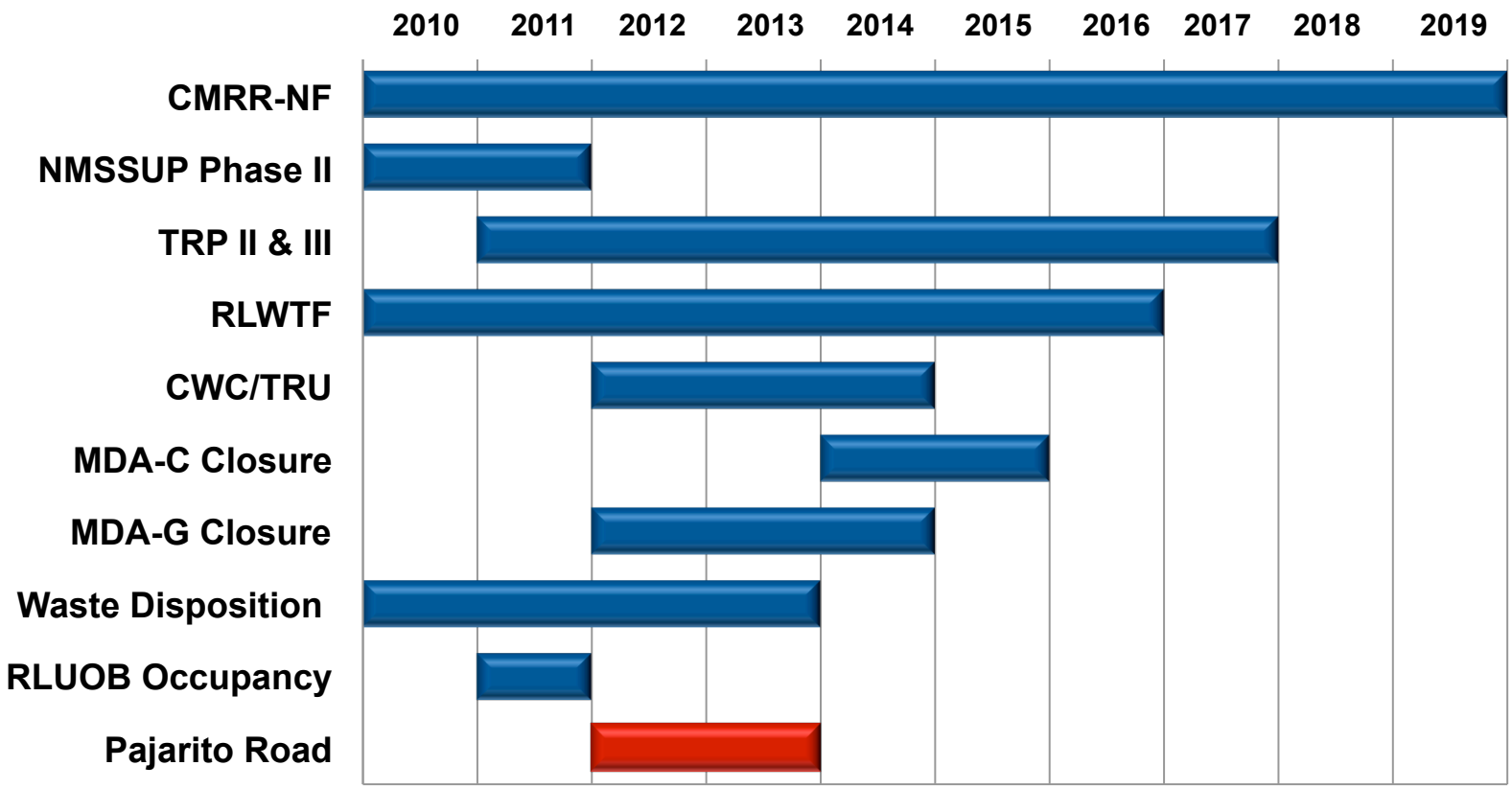
John Bretzke, Deputy Associate Director

Project Management & Site Services, LANL

June 16, 2010

LA-UR-10-04023

Major Projects Near Concurrent Activities



LANL Construction Corridor

Tom McKinney, Associate Director

Project Management & Site Services, LANL

June 16, 2010

LA-UR 10-04021

Major Projects-Near Concurrent Activities

- Chemistry & Metallurgy Research Replacement (CMRR)
- Nuclear Materials Safeguards and Security Upgrade Project (NMSSUP) Phase II
- TA-55 Revitalization Project (TRP) Phase II & III
- Radioactive Liquid Waste Treatment Facility (RLWTF)
- TRU Waste Facility (TRU)
- Material Disposal Area-C Closure
- Material Disposal Area-G Closure
- Waste Disposition Project
- RLUOB Occupancy

LANL Construction Corridor

Tom McKinney, Associate Director

Project Management and Site Services Directorate

Los Alamos National Laboratory

September 8, 2010

LA-UR 10-05995

Major Projects - Near Concurrent Activities

1. **Chemistry & Metallurgy Research Replacement (CMRR)**
   - Radioactive Laboratory/Utility/Office Building (RLUOB) Occupancy
   - RLUOB Equipment Installation (REI)
   - Nuclear Facility (NF)
2. **Nuclear Materials Safeguards and Security Upgrade Project (NMSSUP) Phase II**
3. **Transuranic Waste Facility (TRU)**
4. **TA-55 Revitalization Project (TRP) Phase II & III**
5. **Radioactive Liquid Waste Treatment Facility (RLWTF)**
6. **Material Disposal Area - C Closure**
7. **Material Disposal Area - G Closure**
8. **Waste Disposition Project**

Annex D

FY 2011 Biennial Plan and Budget Assessment on the Modernization and Refurbishment of the Nuclear Security Complex

May 2010

National Nuclear Security Administration
United States Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

U.S. DEPARTMENT OF ENERGY

NNSA National Nuclear Security Administration

technology, and dynamic material experiments. Pit manufacturing is the most rate-limiting constraint on modifications that can be made to the stockpile nuclear explosives package in the event that the pit requires modification. Plutonium processing for nuclear weapons includes all of the processing steps to convert a raw material into a finished product. No opportunity exists for out-sourcing this work or leveraging capacity from the American industrial base. All plutonium capabilities are maintained by a core team of trained and qualified plutonium handling personnel. The present plutonium technology base is adequate to satisfy today's requirements for plutonium programs. The capabilities are regularly exercised and qualified to manufacture a legacy pit type in small annual quantities.

Key Facilities

Plutonium facilities represent a key physical resource for supporting the nuclear weapon stockpile. Due to the hazards associated with plutonium these facilities are very complex, expensive, and difficult to acquire. The typical planning basis for acquiring a new plutonium facility is more than 15 years and several billion dollars. Therefore, close coordination between program planning and facility planning is necessary to ensure alignment between program requirements and the facility design. The major plutonium facilities are located at Los Alamos. The Superblock at Livermore is being transitioned to a Security Category III research and development facility. A system diagram (Figure D–7) shows the major Los Alamos facilities involving plutonium in 2009 and the interfaces to other key facilities associated with plutonium.

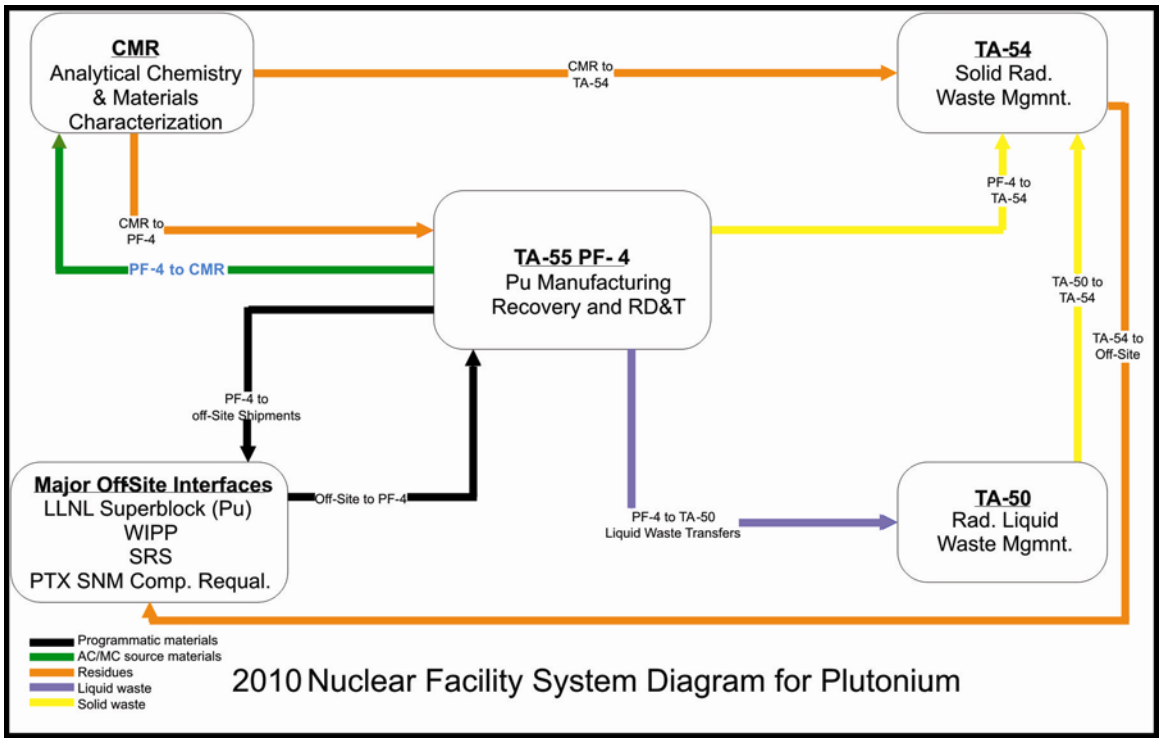


Figure D–7. Key LANL Plutonium Facilities in 2010.

The system diagram changes with time as new facilities replace older facilities, including CMRR-NF replacing CMR, Radioactive Liquid Waste Treatment Facility that will improve treatment capability at TA-50, and the TRU Project replacing TA-54. The overall system

requires reliable service from each of the component facilities shown to support plutonium requirements as presented in Table D–6.

Table D–6.Key Facilities For Plutonium.

Key Facilities For Plutonium	
Facility Name	Facility Function
LANL—Plutonium processing facility (PF-4)	Plutonium Processing.
LANL—CMR	Analytical Chemistry and Materials Characterization.
LANL—Radioactive Liquid Waste Treatment	Waste Treatment and Processing.
LANL—Solid Radioactive Waste Management	Solid Waste Receipt and Staging.
LANL—Main Shops and Beryllium Technology Facility	Support facilities—Non-nuclear pit parts including beryllium.
LLNL—Superblock Plutonium Facility	Security Cat I/II Plutonium R&D until 2012. In the process of transitioning to security Cat III status by 2012.
PTX—SNM Component Requalification Facility	Pit Refurbishment.

Future State

In the near- and long-term, the facilities used to execute plutonium missions are refurbished and/or replaced to maintain a posture for the desired spectrum of weapons life extension options.

Planned Actions

Having a plutonium processing capability is essential to the NNSA mission. It takes years to bring a nuclear facility from a planned alternative to full operations capacity. The short-term action is to support plutonium analytical chemistry and material characterization with replacement of the CMR facility with the CMRR-NF project. There are well documented safety issues with the old CMR facility. This includes work to:

- Develop and execute a program to align existing plutonium capabilities to address the forecasted plutonium capacity requirements and to periodically re-invest in existing capabilities. This capability re-investment is important to ensure responsiveness because the current capability runs the risk of single point failure. Process equipment, for example, typically takes between 3 to 8 years to acquire and deploy inside an operating plutonium facility. The FY 2011 investments in deployed equipment in PF-4 are realized in the 2014-2019 time period.

- Fund and execute line item projects for plutonium-related facility upgrades and replacements for plutonium facilities.

The series of actions required to transition the plutonium infrastructure to support the long-, mid- and short-term duration are critical activities. In the short—midterm, NNSA has defined plans to ensure that the plutonium technical capability is maintained and sufficient to support the base capability and future projected capacities.

LOS ALAMOS STUDY GROUP
Mission and Method

Mission and Method

The Los Alamos Study Group seeks **nuclear disarmament, environmental protection and enhancement, social justice, and economic sustainability** – goals which are closely interrelated, mutually reinforcing, and essential to one another. These goals are very widely supported in American society and we construe them as essentially conservative, however revolutionary they would be in actual practice.

We aim not only to change public policy but also to prevent the implementation of bad policies. The latter is often easier to achieve; it comprises *de facto* policy change and often leads to *de jure* change.

The central ideal in these four goals can be stated approximately as ***respect for the human person in the living landscape*.** Such an ideal is as intellectually, morally, economically, and politically incompatible with nuclear weapons as it is necessary for economic, social, and spiritual renewal in this state and nationally.

Everything we do to achieve both our external and our internal goals falls into one of three program categories:

- **Research, writing, and publication:** activities primarily involving research, writing, publication, public speaking, and the education of news media, federal decisionmakers and legislators;
- **Organizing and outreach:** activities primarily involving building and evoking strong public commitment in New Mexico, the U.S., and the world to nuclear disarmament and related goals; and
- **Sustaining the organization:** activities primarily devoted to institutional development, maintenance, accountability, and sustainability.

In practice, all three kinds of programs work together, like the frame of a bicycle with its two wheels.

EXHIBIT 16

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2901 Summit Place NE Albuquerque, NM 87106, Phone: 505-265-1200, Fax: 505-265-1207

DOE F 1325.8
(8-89)

United States Government **Department of Energy**

memorandum

DATE: June 17, 2003

REPLY TO ATTN OF: Office of NEPA Policy and Compliance (B. Mills, 202-586-8267)

SUBJECT: Guidance Regarding Actions That May Proceed During the National Environmental Policy Act (NEPA) Process: Interim Actions

TO: Secretarial Officers
Heads of Field Organizations

The Department of Energy (DOE) frequently needs to decide whether an action that is within the scope of an ongoing environmental impact statement (EIS) may proceed before a record of decision (ROD) is issued. An action within the scope of an EIS that is taken before a ROD is commonly referred to as an "interim action." DOE may propose to take the action before a ROD to reduce risk or mitigate adverse impacts to human health and the environment or reduce program costs. Indeed, interim actions to respond to an immediate need are often permissible and should be pursued, as appropriate. This issue arises most frequently with respect to actions that fall within the scope of a programmatic or site-wide EIS.

In preparing the attached guidance, we consulted with the Office of General Counsel, and we considered suggestions made by NEPA Compliance Officers. We prepared this guidance to help respond to the concern that compliance with NEPA could become the reason for near-term hazards to go unmitigated, as expressed in the February 2002 Environmental Management Top-To-Bottom Review. The guidance is based on criteria established by the Council on Environmental Quality in its regulations implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508), DOE's NEPA implementing regulations (10 CFR Part 1021), which rely on those criteria, and DOE Order 451.1B, *National Environmental Policy Act Compliance Program*. Examples of the types of actions that may proceed as interim actions and a flow diagram summarizing key aspects of the guidance are provided.

If you have any questions regarding this guidance or its application to particular proposed actions, please direct them to Carol Borgstrom, Director, Office of NEPA Policy and Compliance (EH-42), at 202-586-4600.

Beverly A. Cook
Assistant Secretary
Environment, Safety and Health

Attachment
cc: William Dennison, GC-51
NEPA Compliance Officers

Guidance Regarding Actions That May Proceed
During the National Environmental Policy Act (NEPA) Process:
Interim Actions

The Department of Energy (DOE) frequently needs to decide whether an action that is within the scope of an ongoing environmental impact statement (EIS) may proceed before a record of decision (ROD) is issued. An action within the scope of an EIS that is taken before a ROD is commonly referred to as an "interim action." DOE may propose to take an action before a ROD to reduce risk or mitigate adverse impacts to human health and the environment or to reduce program costs. Indeed, interim actions to respond to an immediate need are often permissible and should be pursued, as appropriate. This issue arises most frequently with respect to actions that fall within the scope of a programmatic or site-wide EIS.

The following guidance is based on criteria established by the Council on Environmental Quality (CEQ) in its regulations implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508; 40 CFR 1506.1 attached as Exhibit 1), DOE's NEPA implementing regulations (10 CFR 1021.104 and 1021.211, attached as Exhibit 2, which define interim action and incorporate the CEQ criteria), and DOE Order 451.1B, *National Environmental Policy Act Compliance Program*. This guidance does not create any additional requirements beyond those in these sources.

To provide assistance in determining whether an action within the scope of an EIS may be taken before a ROD, the guidance reviews applicable requirements, gives examples of the types of actions that may proceed as interim actions, describes case studies, and outlines the steps in the EIS process for interim actions.

Requirements for project-specific and programmatic EISs are distinguished where appropriate. In brief, for a project-specific EIS, an interim action must be one that would not adversely affect the environment nor limit the choice of reasonable alternatives. For a programmatic EIS, an EIS must be prepared for a proposed interim action that has potential for significant environmental effects, and the interim action must be one that would neither affect nor be affected by the proposed program. In general, an action of relatively limited scope or scale that would have only local utility normally could be taken as an interim action before a ROD.

CEQ Criteria for Interim Actions

CEQ's criteria for interim actions (at 40 CFR 1506.1) are best understood in the context of the purpose of an EIS. As stated in the CEQ regulations, the primary purpose of an EIS is to serve as an action-forcing device to ensure that the policies and goals defined in NEPA are infused into an agency's

ongoing programs and actions (40 CFR 1502.1). An EIS is more than a disclosure document; it is to be used by decision makers in conjunction with other relevant information to plan actions and make decisions.

At 40 CFR 1502.2, the CEQ regulations state that:

> "(f) Agencies shall not commit resources prejudicing selection of alternatives before making a final decision ([Section] 1506.1).
>
> (g) Environmental impact statements shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made" (emphasis added).

CEQ established separate criteria for project-specific EISs in Section 1506.1(a) and for required programmatic EISs in Section 1506.1(c), as discussed below.[1] Both sets of criteria address, in part, the need to avoid improper segmentation, in particular with regard to connected actions, e.g., actions that are interdependent parts of a larger action and depend on the larger action for justification (in 40 CFR 1508.25(a)).

Application of CEQ Criteria to DOE Actions Covered by Project-specific EISs

[1]In addition, Section 1506.1(b) states an agency's responsibility to ensure that non-Federal applicants meet the objectives of 40 CFR 1506.1(a), and Section 1506.1(d) allows limited activities (e.g., plans, designs) specifically in support of Federal, State or local permit applications.

CEQ also discusses the Section 1506.1 criteria in two items in Forty Most Asked Questions Concerning CEQ's NEPA Regulations (51 FR 15618; April 25, 1986). In item 10a, CEQ reiterates the criteria in 1506.1(a) and (c). In item 11a, CEQ provides examples of actions an agency could take under 40 CFR 1506.1(b) to ensure that the objectives and procedures of NEPA are met when an applicant proposes to take an invalid interim action within the agency's jurisdiction; the agency's actions could range from negotiation to non-approval of the permit application.

Under Section 1506.1(a), until an agency issues a ROD[2], no action concerning the proposal can be taken that would:

(1) Have an adverse environmental impact; or

(2) Limit the choice of reasonable alternatives.

Many types of actions could be interim actions to a project-specific EIS. In general, project managers may proceed with conceptual design (under DOE O 413.3, *Program and Project Management for the Acquisition of Capital Assets*) and feasibility studies in support of a project because these activities meet both criteria of Section 1506.1(a). Site characterization activities to support a meaningful analysis of the environmental impacts of the proposed project also generally may be undertaken. Small scale corrective actions under the Resource Conservation and Recovery Act or installing fences to enhance security represent other classes of actions that usually may proceed under the criteria of Section 1506.1(a).

Although the activities discussed in the paragraph above would take place while a more extensive action (e.g., a waste management or nuclear materials action) is being evaluated in its associated ElS, the activities normally are unlikely to involve adverse environmental impacts or limit the choice of reasonable alternatives for the final action. An action that is not within the scope of the EIS, such as ongoing site operations, would not be constrained by the criteria for an interim action and could proceed.

In the context of this guidance "adverse environmental impact" means a negative environmental impact at such a level that an element of the human environment is impaired or damaged. Judgment of whether the level of negative impact is high enough to impair or damage depends on the situation and the resource. For some resources, adverse impact is defined in the statute protecting the resource or in implementing regulations.

[2]The CEQ regulations address criteria for interim actions during the preparation of an EIS only. A project or program for which an environmental assessment (EA) is prepared is normally smaller in scope than a project or program for which an EIS is prepared, and the EA process is shorter in duration than the EIS process. Thus the question of interim actions is less likely to arise during EA preparation. However, EAs, like EISs, are intended to inform decisions and therefore, normally should be completed before an action is taken. In those exceptional cases where part of a proposed action needs to proceed while the EA is being prepared, DOE managers should be mindful of the principles enunciated by the Section 1506.1(a) criteria, i.e., that the activity does not have an adverse environmental impact nor does it limit the choice of reasonable alternatives. Early and continued consideration of the Section 1506.1 criteria should lead to better project and program planning and decisions, regardless of whether an EA or an EIS is being prepared.

- For example, under the implementing regulations for the National Historic Preservation Act, "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association." [36 CFR 800.5(a)(1)]

- Under the implementing regulations for the Endangered Species Act, an adverse impact would be a "take" (of an endangered or threatened species or a species proposed for listing as endangered or threatened), which means "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect." [50 CFR 10.12] With regard to critical habitat, the implementing regulations define destruction or adverse modification to mean "a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species." [50 CFR 402.02]

NEPA documentation is not normally needed for permissible interim actions under project-specific EISs. See Exhibit 3 for a diagram of steps in the NEPA process for interim actions for project-specific EISs. Valid interim actions associated with project-specific EISs should be minor in scope (as discussed above), not require analysis to show that the criteria are met, and be similar in nature to categorical exclusions. That a proposed interim action is similar in nature to a categorical exclusion does not in itself indicate that it is a valid interim action. As with the application of categorical exclusions or many other project or programmatic decisions, a record of interim action determination is recommended.

Proceeding with detailed design under DOE O 413.3, *Program and Project Management for the Acquisition of Capital Assets*, before the NEPA review process is completed (in contrast to conceptual design noted above) is normally not appropriate because the choice of alternatives might be limited by premature commitment of resources to the proposed project and by the resulting schedule advantage relative to reasonable alternatives. For example, detailed design for containers that could only be transported via rail may prejudice consideration of truck or barge transport as alternatives. Concern about limiting the choice of reasonable alternatives is the basis for the DOE policy, expressed in the DOE NEPA regulations at 10 CFR 1021.210(b), that NEPA review normally should be completed before deciding to start detailed design.[3]

[3] Note, too, that DOE O 413.3 similarly provides for NEPA documentation to be completed before critical decision-2 (detailed design). Conceptual design and detailed design are defined under this DOE Order.

Application of CEQ Criteria to DOE Actions Covered by Programmatic EISs

Section 1506.1(c) states "While work on a required program environmental impact statement is in progress and the action is not covered by an existing program statement, agencies shall not undertake in the interim any major Federal action covered by the program which may significantly affect the quality of the human environment unless such action:

(1) Is justified independently of the program;

(2) Is itself accompanied by an adequate environmental impact statement[4]; and

(3) Will not prejudice the ultimate decision on the program. Interim action prejudices the ultimate decision on the program when it tends to determine subsequent development or limit alternatives."

In applying the first criterion ("independent justification"), DOE needs to determine that the proposed interim action could be undertaken irrespective of whether or how the program goes forward.

- In most cases in which DOE is obligated by law to carry out the proposed interim action (e.g., usually cases involving compliance with environmental requirements), DOE would be able to demonstrate independent justification by showing that no reasonably foreseeable decision based on the programmatic EIS would affect the proposed interim action.

- In cases that involve an existing facility that is within the scope of a programmatic EIS in preparation, DOE would need to establish, for example, that a proposed interim action involving a change in the facility (structure or operation) is needed to allow the facility to fulfill its existing mission before decisions can be made and implemented on the basis of the programmatic EIS. If so, a near-term modification would be permissible because it would be necessary for the ongoing program, regardless of how decisions based on the programmatic EIS may affect the future of the facility or the ongoing program.

[4]Section1506.1(c) speaks in terms of interim actions that require an EIS ("major Federal actions"), and thus the criteria of that section do not specifically apply to interim actions to which a categorical exclusion has been applied or for which an environmental assessment and finding of no significant impact have been issued. However, proceeding with these kinds of interim actions when they do not meet the first and third criteria of section 1506.1(c) could present a risk that DOE could be found to be impermissibly segmenting the programmatic action. Therefore, it is recommended that DOE managers consider these criteria and determine that the interim action is independently justified and will not prejudice the ultimate decision on the program before proceeding with the action.

The second criterion indicates that an EIS must be prepared for a proposed interim action that has potential for significant environmental impact.

In applying the third criterion ("non-prejudicial to programmatic decision"), DOE needs to determine whether a proposed interim action would tend to determine subsequent programmatic development or limit programmatic alternatives, as these types of actions could not be taken until a ROD were issued.

- In general, interim actions of relatively limited scope or scale that have only local utility are unlikely to prejudice programmatic development or decisions. A number of related interim actions, however, when considered collectively could unduly influence programmatic decision-making. For example, proceeding with a number of decentralized waste treatment projects could prejudice the choice of programmatic options involving centralized treatment.

- In the case of a site-wide EIS[5], ongoing site operations are not considered interim actions and may continue. Ongoing site operations are considered under No Action.

See Exhibit 3 for a diagram of steps in the NEPA review process for interim actions for programmatic EISs.

Case Studies of the NEPA Process for Interim Actions to Programmatic EISs

A proposed interim action satisfies criteria (1) and (3) in Section 1506.1(c) when the action neither is affected by nor affects the program. An example of such an interim action was the proposed disposal of a limited quantity of mixed-waste from DOE and other Federal facilities at the Nevada Test Site (NTS) while mixed-waste disposal approaches were being considered system-wide in DOE's *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (DOE/EIS-0200, May 1997). The interim action was proposed to provide for short-term waste disposal needs and was judged appropriate because its scope was constrained by limiting the volume of waste to be disposed of and the period over which disposal would occur. No decision based on the Waste Management Programmatic EIS was foreseen to be in conflict with the interim decision for waste disposal at NTS. Likewise, because the interim action would not require a large capital expenditure, the interim action would not limit subsequent development at NTS or alternative sites, nor would it limit the choice of programmatic alternatives considered. Criterion (2) in Section 1506.1(c) was met by a site-wide EIS for NTS (*Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations*

[5] DOE considers site-wide NEPA reviews to be programmatic in nature (although site-wide EISs are not necessarily "required programmatic EISs" within the meaning of Section 1506.1(c)).

in the State of Nevada, DOE/EIS-0243, August 1996) that adequately analyzed past, present, and reasonably foreseeable future mixed-waste disposal activities at the site.

As another example, in April 1996, a U.S. District Court ruled that DOE could proceed with a new major nuclear defense program facility, the Dual Axis Radiographic Hydrodynamic Test facility, at the Los Alamos National Laboratory as an interim action (based on a ROD for the project-specific EIS, *Final Environmental Impact Statement (EIS), Dual Axis Radiographic Hydrodynamic Test Facility*, DOE/EIS-0228, May 1995) while two programmatic EISs were being prepared (*Final Programmatic Environmental Impact Statement for Stockpile Stewardship and Management*, DOE/EIS-0236, September 1996; *Site-Wide Environmental Impact Statement for Continued Operation of the Los Alamos National Laboratory*, DOE/EIS-0238, January 1999). In considering the criteria for valid interim actions, the Court found that DOE had adequately demonstrated that the new facility would be useful notwithstanding the range of alternatives considered in the two programmatic EISs.

Interim Action Determination

The preceding guidance describes the key considerations necessary to determine whether an action that is within the scope of an ongoing NEPA review may proceed as an interim action. Under DOE's NEPA Order, 451.1B, Section 5.a.(12), Secretarial Officers and Heads of Field Organizations have the responsibility to determine whether an interim action is clearly allowable under DOE's NEPA regulations and should factor these considerations into a project's planning process. When it is not clear whether an interim action can proceed, a Secretarial Officer or Head of Field Organization is to provide the Assistant Secretary for Environment, Safety and Health (EH-1) with a recommendation for a determination, and EH-1 will decide, in consultation with the manager, whether the interim action may be taken. The exception to this is that the Administrator, National Nuclear Security Administration (NNSA), makes all determinations concerning NNSA interim actions, consulting with EH-1, as appropriate (DOE O 451.1B, Sections 3 and 6).

EXHIBIT 1

Council on Environmental Quality Regulations
Implementing the Procedural Provisions of NEPA
40 CFR 1506.1

1506.1 Limitations on actions during NEPA process.

(a) Until an agency issues a record of decision as provided in 40 CFR 1505.2 (except as provided in paragraph (c) of this section), no action concerning the proposal shall be taken which would:

(1) Have an adverse environmental impact; or
(2) Limit the choice of reasonable alternatives.

(b) If an agency is considering an application from a non-federal entity and is aware that the applicant is about to take an action within the agency's jurisdiction that would meet either of the criteria in paragraph (a) of this section, then the agency shall promptly notify the applicant that the agency will take appropriate action to insure that the objectives and procedures of NEPA are achieved.

(c) While work on a required program environmental impact statement is in progress and the action is not covered by an existing program statement, agencies shall not undertake in the interim any major Federal action covered by the program which may significantly affect the quality of the human environment unless such action:

(1) Is justified independently of the program;
(2) Is itself accompanied by an adequate environmental impact statement; and
(3) Will not prejudice the ultimate decision on the program. Interim action prejudices the ultimate decision on the program when it tends to determine subsequent development or limit alternatives.

(d) This section does not preclude development by applicants of plans or designs or performance of other work necessary to support an application for Federal, State or local permits or assistance. Nothing in this section shall preclude Rural Electrification Administration approval of minimal expenditures not affecting the environment
(e.g., long leadtime equipment and purchase options) made by non-governmental entities seeking loan guarantees from the Administration.

EXHIBIT 2

Department of Energy
National Environmental Policy Act Implementing Provisions
10 CFR 1021

Sec. 1021.104 Definitions.

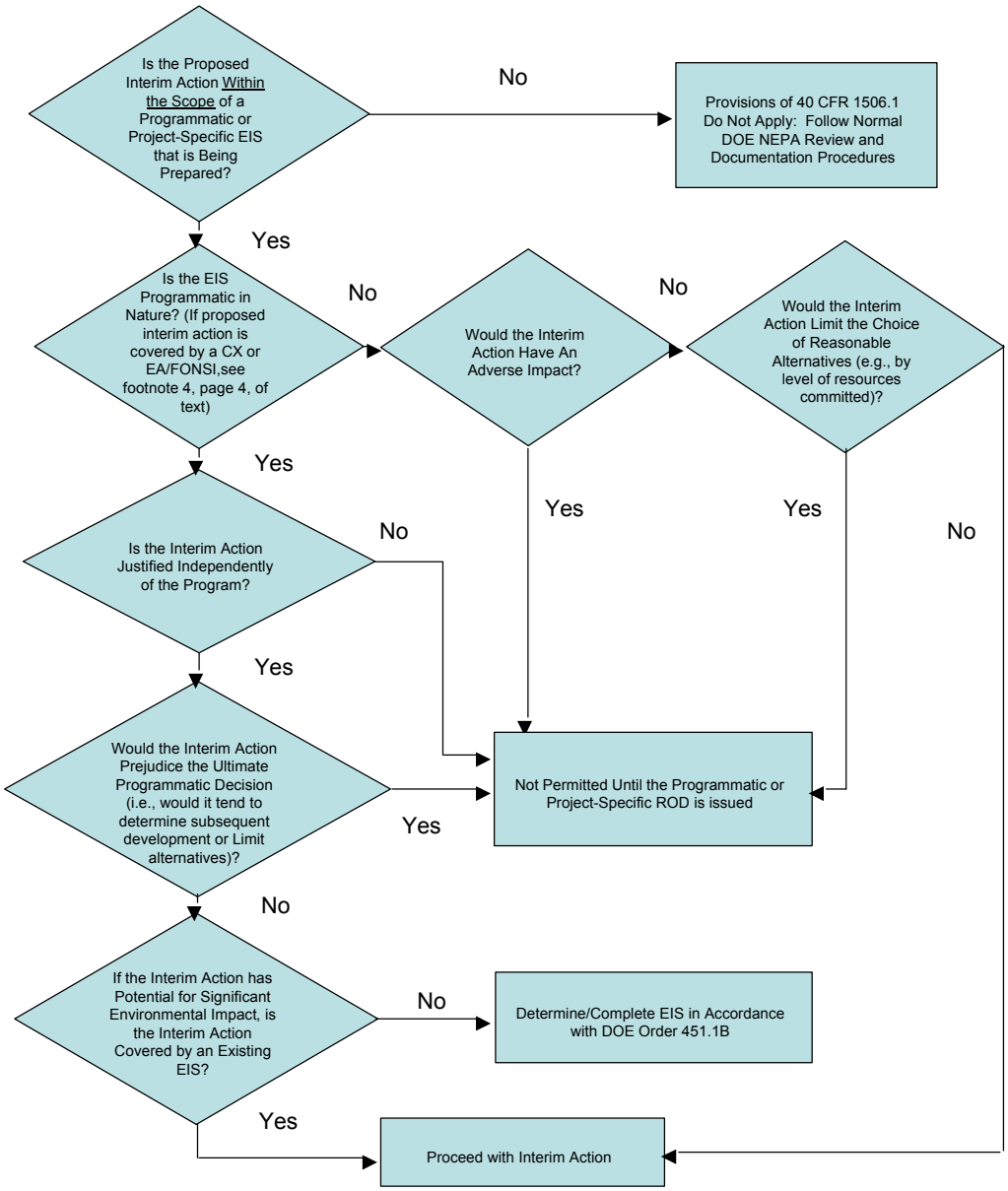
Interim action means an action concerning a proposal that is the subject of an ongoing EIS and that DOE proposes to take before the ROD is issued, and that is permissible under 40 CFR 1506.1: Limitations on actions during the NEPA process.

Sec. 1021.211 Interim actions: Limitations on actions during the NEPA process.

While DOE is preparing an EIS that is required under Sec.1021.300(a) of this part, DOE shall take no action concerning the proposal that is the subject of the EIS before issuing an ROD, except as provided at 40 CFR 1506.1. Actions that are covered by, or are a part of, a DOE proposal for which an EIS is being prepared shall not be categorically excluded under subpart D of these regulations unless they qualify as interim actions under 40 CFR 1506.1.

Exhibit 3

Steps to Follow for Determining Whether Actions May Proceed During the NEPA Process: Interim Actions



America's Strategic Posture

The Final Report of the Congressional Commission on the Strategic Posture of the United States

Authorized Edition

William J. Perry, Chairman

James R. Schlesinger, Vice-Chairman

Harry Cartland
John Foster
John Glenn
Morton Halperin
Lee Hamilton
Fred Ikle
Keith Payne
Bruce Tarter
Ellen Williams
James Woolsey

NNSA sites are all one of a kind. Accordingly, any consolidation would require reconstituting existing capability in some new place and this would add cost, not reduce it. The specific recommendation has been made by some to close either Los Alamos or Livermore and fold needed capabilities into the remaining facility. The Commission rejects this suggestion, and not just for the reason that it would be prohibitively expensive. The preservation of two laboratories provides competitive peer review in the one area—the physics package—that cannot be tested as a matter of national policy and where theoretical understanding remains incomplete.

The preservation of two laboratories provides competitive peer review in the one area—the physics package—that cannot be tested as a matter of national policy and where theoretical understanding remains incomplete.

The Commission considered a variety of studies from recent years about how to update the complex. It is apparent that, for various reasons, none of these has achieved sustained political support.

In December 2008, the NNSA issued its own plan for complex transformation. More specifically, it issued a formal record of decision adopting plans to modify the weapons complex according to a "preferred alternative" which has been subject to extensive review and public comment. This plan would maintain all of the existing sites but would consolidate certain functions, especially at the weapons laboratories, to avoid duplication. Both Los Alamos and Livermore would retain nuclear design and engineering responsibilities in order to provide for competitive peer review. The production complex would be modernized in place, with significant consolidation within sites, especially at the Y-12 facility in Tennessee. Two major replacement facilities would be built. One at Los Alamos would replace a plutonium research and diagnostics facility that is already well past the end of its planned life; this new facility would be called the Chemistry and Metallurgy Research Replacement (CMRR). The other would replace the Uranium Processing Facility (UPF) at Y-12. The current facility was constructed as part of the Manhattan Project in World War II and the many problems and high cost of keeping it running are a testimonial to the failure over the years to make needed investments in the production complex.

The NNSA's plan has merit and should be seriously considered by the Congress. The Congress should not, however, expect that implementation of the complex transformation plan will result in major cost savings. This is unrealistic. Indeed, there may be no significant costs savings. The NNSA proposes to pay for modernization in part with management improvements. But efficiencies may not materialize. Indeed, most projected savings are relatively small in dollar terms. It hopes also to generate increasing income from external customers. But this too will not solve the problem. Moreover, the

costs of transformation will almost certainly rise. The history of nuclear facility construction shows major cost growth. These are sometimes aggravated by Congressional funding decisions that create unpredictability.

In the past, rising facility costs have been borne by taking funds from other activities of the laboratories, usually from the scientific base. As argued further below, this has had a very deleterious impact on the labs and the practice should cease.

The two planned replacement facilities will be very expensive at well over $1 billion each. Given the NNSA's historical problems in cost and schedule management of nuclear facility construction, any current cost estimates should be considered extremely uncertain. Even at currently estimated costs, these two projects would be among the largest construction projects attempted by the nuclear weapons program in the past 25 years.

This raises an obvious question about whether these two replacement programs might proceed in sequence rather than concurrently. There are strong arguments for moving forward concurrently. Existing facilities are genuinely decrepit and are maintained in a safe and secure manner only at high cost. Moreover, the improved production capabilities they promise are integral to the program of refurbishment and modernization described in the preceding chapter. If funding can be found for both, this would best serve the national interest in maintaining a safe, secure, and reliable stockpile of weapons in the most effective and efficient manner.

But if funding cannot be found, what choice should be made? Four factors should be considered:

- There are safety issues with both existing facilities, primarily due to their age. The safety concerns at the Los Alamos plutonium facility are at least as serious as those at the Y-12 uranium facility. But a short-term loss of plutonium capabilities may hurt the weapon program more than a short-term loss of enriched uranium capabilities.
- The Los Alamos plutonium facility makes a direct contribution to maintaining intellectual infrastructure that is in immediate danger of attrition (as argued further below). It assures that there is a complete long-term capability for Los Alamos and Livermore to conduct plutonium research.
- Because the future size of the stockpile is uncertain, projects that are relatively independent of stockpile size should take priority. The uranium production facility's size is influenced by stockpile size (the greater the stockpile size, the larger the needed production capacity). The Los Alamos plutonium facility is required independent of stockpile size.
- The Los Alamos facility has the more mature design.

These considerations lead the commission to the conclusion that, if priority must be given, the Los Alamos plutonium facility should receive it. A delay in construction of the Y-12 uranium processing facility may also allow some redesign to tailor the plan to new arms control agreements and their implications for long-term stockpile requirements. The time might also be used to find ways to minimize the facility's size and cost, and to learn more about secondary reuse.

A critical question in the overall plan is how much capacity should be in place to produce new weapons pits. The original pit-production facility at Rocky Flats was closed more than a decade ago. A capability to produce pits has been reestablished at Los Alamos in the TA-55/PF-4 facility. The facility has demonstrated that it can produce certifiable pits and the NNSA plans that it will be the permanent pit production facility with production of 20 pits per year and surge capabilities up to 50 and 80 pits per year. Given the new understanding of pit lifetimes, these rates ought to be sufficient to support the present stockpile or a reduced stockpile if arms control produces such a result.

The Commission notes also a chronic unwillingness of the Congress to support the programs needed to maintain test readiness. This is an essential safeguard of the no-test policy and should be supported. The Commission has also received evidence that some allies interpret the apparent lack of test readiness as a symptom of reduced U.S. commitment to extended deterrence. The Commission supports the principle of maintaining readiness to resume underground nuclear testing and recommends that the program be funded to maintain the 24-month timeline.

The Intellectual Infrastructure

The Commission's second main concern about the nuclear weapons complex is that the intellectual infrastructure there is in serious trouble—perhaps more so than the physical complex itself. It strongly recommends that significant steps be taken to remedy the situation.

The Commission's second main concern about the nuclear weapons complex is that the intellectual infrastructure there is in serious trouble….

It is important to understand the weapons laboratories are more than a complex of facilities and instruments. The foundation of their work in support of the national deterrent is a unique scientific and engineering capability. Although nuclear weapons have existed for over sixty years, weapons science was largely an empirical science for much of that period. Nuclear weapons are exceptionally complex, involving temperatures as high as the sun and times measured in nanoseconds. Understanding these weapons from first principles requires a broad, diverse and deep set of scientific skills, along with complex experimental tools and some

the nuclear deterrent. As the United States reduces the numbers of nuclear weapons, the reliability of the remaining weapons in the stockpile – and the quality of the facilities needed to sustain it – become more important.

Human capital is also a concern. The national security laboratories have found it increasingly difficult to attract and retain the most promising scientists and engineers of the next generation. The Administration's commitment to a clear, long-term plan for managing the stockpile, as well as to preventing proliferation and nuclear terrorism will enhance recruitment and retention of the scientists and engineers of tomorrow, by providing the opportunity to engage in challenging and meaningful research and development activities.

The NPR concluded:

- The science, technology and engineering base, vital for stockpile stewardship as well as providing insights for non-proliferation, must be strengthened.
- Increased investments in the nuclear weapons complex of facilities and personnel are required to ensure the long-term safety, security, and effectiveness of our nuclear arsenal. New facilities will be sized to support the requirements of the stockpile stewardship and management plan being developed by the National Nuclear Security Administration.
- Increased funding is needed for the Chemistry and Metallurgy Research Replacement Project at Los Alamos National Laboratory to replace the existing 50-year old facility, and to develop a new Uranium Processing Facility at the Y-12 Plant in Oak Ridge, Tennessee.

Looking Ahead: Toward a World without Nuclear Weapons

Pursuing the recommendations of the 2010 Nuclear Posture Review will strengthen the security of the United States and its allies and partners and bring us significant steps closer to the President's vision of a world without nuclear weapons.

The conditions that would ultimately permit the United States and others to give up their nuclear weapons without risking greater international instability and insecurity are very demanding. Among those conditions are success in halting the proliferation of nuclear weapons, much greater transparency into the programs and capabilities of key countries of concern, verification methods and technologies capable of detecting violations of disarmament obligations, enforcement measures strong and credible enough to deter such violations, and ultimately the resolution of regional disputes that can motivate rival states to acquire and maintain nuclear weapons. Clearly, such conditions do not exist today.

But we can – and must – work actively to create those conditions. We can take the practical steps identified in the 2010 NPR that will not only move us toward the ultimate goal of eliminating all nuclear weapons worldwide but will, in their own right, reinvigorate the global nuclear non-

seeking greater stockpile reductions than otherwise possible. Further, a corps of highly skilled personnel will continue to expand our ability to understand the technical challenges associated with verifying ever deeper arms control reductions.

Through science and engineering programs that improve the analysis of the reliability of our warheads, we also enhance our ability to assess and render safe potential terrorist nuclear devices and support other national security initiatives, such as nuclear forensics and attribution. Expert nuclear scientists and engineers help improve our understanding of foreign nuclear weapons activities, which is critical for managing risks on the path to zero. And, in a world with complete nuclear disarmament, a robust intellectual and physical capability would provide the ultimate insurance against nuclear break-out by an aggressor.

Additionally, the industrial base activities that support the nuclear enterprise also remain critical to the nation's deterrence posture. Increased surveillance of critical commercial sector human skills, manufacturing capabilities, and sustainment capabilities is required to ensure this infrastructure remains viable to support the enterprise.

The NPR concluded that the following key investments were required to sustain a safe, secure, and effective nuclear arsenal:

- Strengthening the science, technology, and engineering (ST&E) base needed for conducting weapon system LEPs, maturing advanced technologies to increase weapons surety, qualification of weapon components and certifying weapons without nuclear testing, and providing annual stockpile assessments through weapons surveillance. This includes developing and sustaining high quality scientific staff and supporting computational and experimental capabilities. The NNSA will develop a long-term strategy that will describe the ST&E base required to meet the Stockpile Stewardship Program. The report will be delivered to the Nuclear Weapons Council in 2011.
- Funding the Chemistry and Metallurgy Research Replacement Project at Los Alamos National Laboratory to replace the existing 50-year old Chemistry and Metallurgy Research facility in 2021.
- Developing a new Uranium Processing Facility at the Y-12 Plant in Oak Ridge, Tennessee to come on line for production operations in 2021. Without an ability to produce uranium components, any plan to sustain the stockpile, as well as support for our Navy nuclear propulsion, will come to a halt. This would have a significant impact, not just on the weapons program, but in dealing with nuclear dangers of many kinds.

More broadly, the Administration supports the needed recapitalization of the nuclear infrastructure through fully funding the NNSA. New production facilities will be sized to support the requirements of the Stockpile Stewardship Program mandated by Congress and to

DOE/EIS-236-S2

U.S. Department of Energy

Draft Supplemental Programmatic Environmental Impact Statement on Stockpile Stewardship and Management for a Modern Pit Facility

Summary

May 2003

U.S. Department of Energy
National Nuclear Security Administration

Pit capacity requirements must also account for the need for additional pits, e.g., logistics spares and surveillance units. As a result of this requirement, the number of pits that must be available to support a specific weapon system will exceed the number of deployed strategic weapons and vary by pit type.

Contingency production requirements are also an important driver for the need for a MPF. Contingency production, which is the ability to produce a substantial quantity of pits on short notice, is distinct from the capacity needed to replace pits destroyed for surveillance or other reasons (such as for production quality assurance or other experiments). The capacity of a MPF needs to support both scheduled stockpile pit replacement at EOL and any "unexpected" short-term production. Such short-term "contingency" production may be required for reliability replacement (replacement of pits to address, for example, a design, production, or unexpected aging flaw identified in surveillance), or for stockpile augmentation (such as the production of new weapons, if required by national security needs).

In all cases, and in all combinations with other capacity drivers, the interim production capacity being established at LANL will be inadequate to maintain these projected stockpiles. The required production capacity is a function of pit lifetime, stockpile size, and start date of full-scale production. To account for these variables, this MPF EIS evaluates a pit production capacity between 125-450 ppy for full-scale production beginning in approximately 2020.

S.2.1.4 Agility as a Driver

A critical element of production readiness is the agility (the ability to change rapidly from the production of one pit type to another, or to simultaneously produce different pit types) of the production line. Pits in the current enduring stockpile were produced over a relatively short period of time and can therefore be expected to reach their respective EOLs at about the same time, as well. Thus, any strategy to replace the enduring stockpile pits before they reach their EOL must address both the production rate for a particular pit type (the capacity driver discussed in Section S.2.1.1), and the ability to produce all necessary pit types in a relatively short period of time. For this reason, agility is an essential requirement for a MPF.

Contingency production also requires agility. If contingency production is ever needed, the response time will likely be driven by either a reliability problem that requires prompt response, or another type of emergency that must be addressed quickly. Thus, changeover from production of one pit type to another will have to be demonstrated for both replacements of pits at EOL (a process that will allow for planning and scheduled activities in advance of the need date), as well as for startup of contingency production with little notice (and therefore little planning time).

S.2.2 Purposes to be Achieved by a Modern Pit Facility

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.

DEPARTMENT OF ENERGY

Bonneville Power Administration

Availability of the Bonneville Purchasing Instructions (BPI) and Bonneville Financial Assistance Instructions (BFAI)

AGENCY: Bonneville Power Administration (BPA), DOE.

ACTION: Notice of document availability.

SUMMARY: Copies of the Bonneville Purchasing Instructions (BPI), which contain the policy and establish the procedures that BPA uses in the solicitation, award, and administration of its purchases of goods and services, including construction, are available in printed form for $30, or without charge at the following Internet address: *http://www.bpa.gov/corporate/business/bpi.* Copies of the Bonneville Financial Assistance Instructions (BFAI), which contain the policy and establish the procedures that BPA uses in the solicitation, award, and administration of financial assistance instruments (principally grants and cooperative agreements), are available in printed form for $15 each, or available without charge at the following Internet address: *http://www.bpa.gov/corporate/business/bfai.*

ADDRESSES: Unbound copies of the BPI or BFAI may be obtained by sending a check for the proper amount to the Head of the Contracting Activity, Routing DGP–7, Bonneville Power Administration, P.O. Box 3621, Portland, Oregon 97208–3621.

FOR FURTHER INFORMATION CONTACT: Manager, Communications,1–800–622–4519.

SUPPLEMENTARY INFORMATION: BPA was established in 1937 as a Federal Power Marketing Agency in the Pacific Northwest. BPA operations are financed from power revenues rather than annual appropriations. BPA's purchasing operations are conducted under 16 U.S.C. 832 *et seq.* and related statutes. Pursuant to these special authorities, the BPI is promulgated as a statement of purchasing policy and as a body of interpretative regulations governing the conduct of BPA purchasing activities. It is significantly different from the Federal Acquisition Regulation, and reflects BPA's private sector approach to purchasing the goods and services that it requires. BPA's financial assistance operations are conducted under 16 U.S.C. 839 *et seq.* and 16 U.S.C. 839 *et seq.* The BFAI express BPA's financial assistance policy. The BFAI also comprise BPA's rules governing implementation of the principles provided in the following Federal Regulations and/or OMB circulars:

2 CFR Part 220 Cost Principles for Educational Institutions (Circular A–21);
2 CFR Part 225 Cost Principles for State, Local and Indian Tribal Governments (Circular A–87);
Grants and Cooperative Agreements with State and Local Governments (Circular A–102);
Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals and Other Non-Profit Organizations (Circular A–110);
2 CFR Part 230 Cost Principles for Non-Profit Organizations (Circular A–122); and
Audits of States, Local Governments and Non-Profit Organizations (Circular A–133)

BPA's solicitations and contracts include notice of applicability and availability of the BPI and the BFAI, as appropriate, for the information of offerors on particular purchases or financial assistance transactions.

Issued in Portland, Oregon, on September 17, 2010.

Damian J. Kelly,

Manager, Purchasing/Property Governance.

[FR Doc. 2010–24672 Filed 9–30–10; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

National Nuclear Security Administration

Notice of Intent To Prepare a Supplemental Environmental Impact Statement for the Nuclear Facility Portion of the Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory, Los Alamos, NM

AGENCY: U.S. Department of Energy (DOE), National Nuclear Security Administration (NNSA).

ACTION: Notice of intent.

SUMMARY: The Council on Environmental Quality's implementing regulations for the National Environmental Policy Act (NEPA) (40 CFR 1502.9[c][1] and [2]) and DOE's NEPA implementing regulations (10 CFR 1021.314) require the preparation of a supplement to an environmental impact statement (EIS) when there are substantial changes to a proposal or when there are significant new circumstances or information relevant to environmental concerns. DOE may also prepare a supplemental EIS at any time to further the purposes of NEPA. Pursuant to these provisions, the NNSA, a semi-autonomous agency within the DOE, intends to prepare a supplemental environmental impact statement (SEIS) to assess the potential environmental impacts of the construction and operation of the nuclear facility portion of the Chemistry and Metallurgy Research Building Replacement Project (CMRR–NF) at Los Alamos National Laboratory (LANL), Los Alamos, New Mexico.

The CMRR Project, including the CMRR–NF, was the subject of NNSA's *Final Environmental Impact Statement for the Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory, Los Alamos, New Mexico* (DOE/EIS–0350; the CMRR EIS) issued in November 2003, and a February 2004 Record of Decision (ROD) (69 FR 6967). Over time, due in large part to detailed site geotechnical investigations, 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.

DATES: NNSA invites stakeholders and members of the public to submit comments and suggestions on the scope of the SEIS during the SEIS scoping period, which starts with the publication of this Notice and will continue for 30 days until November 1, 2010. NNSA will consider all comments received or postmarked by that date in defining the scope of this SEIS. Comments received or postmarked after that date will be considered to the extent practicable. Two public scoping meetings will be held to provide the public with an opportunity to present comments, ask questions, and discuss concerns regarding the SEIS with NNSA officials. Public scoping meetings will be held on October 19, 2010, at the White Rock Town Hall, 139 Longview Drive, White Rock, New Mexico and October 20, 2010, at the Cities of Gold Casino Hotel, Pojoaque, New Mexico. Both meetings will begin at 4 p.m. and end at 7 p.m. The NNSA will publish additional notices regarding the scoping meetings in local newspapers in advance of the scheduled meetings. Any necessary changes will be announced in the local media.

Any agency, state, pueblo, tribe, or unit of local government that desires to be designated a cooperating agency should contact Mr. John Tegtmeier at the address listed below by the closing date of the scoping period.

ADDRESSES: Written comments or suggestions concerning the scope of the CMRR–NF SEIS or requests for more information on the SEIS and public scoping process should be directed to: Mr. John Tegtmeier, CMRR–NF SEIS Document Manager, U.S. Department of Energy, National Nuclear Security Administration, Los Alamos Site Office, 3747 West Jemez Road, TA–3 Building 1410, Los Alamos, New Mexico, 87544; facsimile at 505–667–5948; or e-mail at: *NEPALASO@doeal.gov.* Mr. Tegtmeier may also be reached by telephone at 505–665–0113.

In addition to providing comments at the public scoping meetings, all interested parties are invited to record their comments, ask questions concerning the EIS, or request to be placed on the EIS mailing or document distribution list by leaving a message on the SEIS Hotline at (toll free) 1–877–427–9439. The Hotline will provide instructions on how to record comments and requests.

FOR FURTHER INFORMATION CONTACT: For general information on the NNSA NEPA process, please contact: Ms. Mary Martin (NA–56), NNSA NEPA Compliance Officer, U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585, or telephone 202–586–9438. For general information about the DOE NEPA process, please contact: Ms. Carol Borgstrom, Director, Office of NEPA Policy and Compliance (GC–54), U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585, telephone 202–586–4600, or leave a message at 1–800–472–2756. Additional information about the DOE NEPA process, an electronic archive of DOE NEPA documents, including those referenced in this announcement, and other NEPA resources are provided at *http://nepa.energy.gov.*

SUPPLEMENTARY INFORMATION: LANL is located in north-central New Mexico, 60 miles north-northeast of Albuquerque, 25 miles northwest of Santa Fe, and 20 miles southwest of Española in Los Alamos and Santa Fe Counties. It is located between the Jemez Mountains to the west and the Sangre de Cristo Mountains and Rio Grande to the east. LANL occupies an area of about 25,600 acres [10,360 hectares] or approximately 40 square miles and is operated for NNSA by a contractor, Los Alamos National Security, LLC. It is a multidisciplinary, multipurpose institution engaged in theoretical and experimental research and development. LANL has been assigned science, research and development, and production mission support activities that are critical to the accomplishment of the NNSA's national security objectives as reflected in the Stockpile Stewardship and Management Programmatic EIS (DOE/EIS–0236) and the Complex Transformation Supplemental Programmatic EIS (DOE/EIS–0236–S4). LANL's main role in NNSA mission objectives includes a wide range of scientific and technological capabilities that support nuclear materials handling, processing and fabrication; stockpile management; materials and manufacturing technologies; nonproliferation programs; research and development support for national defense and homeland security programs; and DOE waste management activities.

The capabilities needed to execute the NNSA mission activities require facilities at LANL that can be used to handle actinides and other radioactive materials in a safe and secure manner. (The actinides are any of a series of 14 chemical elements with atomic numbers ranging from 89 (actinium) through 103 (lawrencium)). Of primary importance are the facilities located within the Chemistry and Metallurgy Research (CMR) Building and the Plutonium Facility (located at Technical Areas (TAs) 3 and 55, respectively), which are used for processing, characterizing, and storage of special nuclear material. (Special nuclear material is defined by the Atomic Energy Act of 1954 as plutonium, uranium-233, or uranium enriched in the isotopes uranium-233 or uranium-235). Most of the LANL mission support functions previously listed require analytical chemistry, material characterization, and actinide research and development support capabilities that currently exist within the CMR Building and are not available elsewhere. Other unique capabilities are located at the adjacent Plutonium Facility. Work is sometimes moved between the CMR Building and the Plutonium Facility to make use of the full suite of capabilities that these two facilities provide. CMR Building operations and capabilities are currently restricted in scope due to safety and security constraints; it cannot be operated to the full extent needed to meet NNSA operational requirements.

The CMR building contains about 550,000 square feet (about 51,100 square meters) of floor space on two floors divided between a main corridor and seven wings. It was constructed in the early 1950s. DOE maintained and upgraded the building over time to provide for continued safe operations. However, beginning in 1997 and 1998, a series of operational, safety, and seismic issues surfaced regarding the long-term viability of the CMR Building. In January 1999, the NNSA approved a strategy for managing operational risks at the CMR Building. The strategy included implementing operational restrictions to ensure safe operations. These restrictions are impacting the assigned mission activities conducted at the CMR Building. This strategy also committed NNSA to develop plans to relocate the CMR capabilities elsewhere at LANL to maintain support of national security and other NNSA missions. The CMRR EIS was prepared and issued in 2003, followed by a ROD in 2004.

The CMRR EIS analyzed four action alternatives: (1) The construction and operation of a new CMRR facility at TA–55; (2) the construction of a new CMRR facility at a "greenfield" location within TA–6; (3) a "hybrid" alternative maintaining administrative offices and support functions at the existing CMR building with a new Hazard Category 2 laboratory facility built at TA–55; and, (4) a "hybrid" alternative with the laboratory facility being constructed at TA–6. The CMRR EIS also analyzed a no action alternative where the existing CMR building would continue to be kept in service. In the 2004 ROD, NNSA announced its decision to implement the preferred alternative (alternative 1): To construct a new CMRR facility which would include a single above-ground, consolidated nuclear material-capable, Hazard Category 2 laboratory building (construction option 3) with a separate, adjacent administrative office and support functions building, now referred to as the CMRR Radiological Laboratory/Utility/Office Building (CMRR RLUOB). Upon completion, the CMRR Facility would replace the CMR Building, operations would be moved to the new CMRR Facility, and the vacated CMR Building would undergo decommissioning, decontamination, and demolition. (While the CMRR RLUOB has been constructed in TA–55 at LANL, the installation of laboratory equipment has not been completed and operations have not begun). Since 2004, the planning process for the construction and operation of the CMRR–NF has continued to progress and take into consideration newly gathered site-specific data and safety and security requirements.

Purpose and Need: The NNSA's purpose and need for proposing the construction and operation of the CMRR–NF have not changed since the CMRR EIS was prepared and issued in 2003. NNSA needs to provide the physical means for accommodating the CMR Building's functional, mission-critical nuclear capabilities, and to

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

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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

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[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

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[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., *serving 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 *serving both buildings*; a training center which includes simulated laboratories *serving 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

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[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.

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[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*.

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[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:

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[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.

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[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 it. This mission centers primarily centers 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

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[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 rejected[39]. 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 RLTWF. 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.

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[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-FY20017," 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 estim-ated	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.

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[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

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[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

OFFICIAL SEAL
MEREDITH M. MARSHALL
Notary Public
State of New Mexico
My Comm. Expires 2-26-12

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 STEVEN CHU, in his capacity as SECRETARY, DEPARTMENT OF ENERGY; NATIONAL NUCLEAR SECURITY ADMINISTRATION; THE HONORABLE THOMAS PAUL D'AGOSTINO, in his Capacity as ADMINSTRATOR, NATIONAL NUCLEAR SECURITY ADMINISTRATION,

Defendants.

AFFIDAVIT OF FRANK N. VON HIPPEL

State of New Jersey)
) ss.
County of Mercer)

Frank N. von Hippel, under penalty of perjury, hereby declares as follows this 6th day of January 2011:

1. My qualifications to address matters relating to U.S. nuclear-weapon policy are as follows: My training is in theoretical nuclear physics (Rhodes Scholar and Oxford University PhD, 1962). Since 1974, I have been on the research staff and faculty of Princeton University, currently as a Professor of Public and International Affairs. I co-founded and am still a Principal Investigator in Princeton's Program on Science and Global Security (formerly, the Program on Nuclear Policy Alternatives) where a major

focus of my research has been on technical aspects of U.S. nuclear-weapon policy. From September 1993 through December 1994, I was on leave as Assistant Director for National Security in the White House Office of Science and Technology Policy. For five years (1995-2001), I was a member of the External Review Board of LANL's Nonproliferation and International Security Division. I co-authored the American Physical Society's [the APS is the professional society of American physicists] 2004 assessment of the National Nuclear Security Administration's (NNSA) need for a Modern Pit Facility [*The Modern Pit Facility (MPF). No urgency for a MPF. Address key technical issues before proceeding*, http://www.aps.org/policy/reports/popa-reports/upload/pit_facility.pdf]. Since 2006, I have been co-chair of the International Panel on Fissile Materials, an international organization that advises the public and governments about the technical basis for possible policy initiatives to control and eliminate plutonium and highly enriched uranium, the two essential nuclear-weapon materials. The American Institute of Physics has published a collection of my articles on public policy in its "Masters of Modern Physics" series and, in 2010, I was awarded the APS 2010 Leo Szilard Lectureship Award for "outstanding work and leadership in using physics to illuminate public policy in the areas of nuclear arms control and nonproliferation, nuclear energy, and energy efficiency."

2. I make this affidavit in support of the Los Alamos Study Group's Motion for Preliminary Injunction. I am a member of the Los Alamos Study Group.

3. The Chemistry and Metallurgy Research Replacement (CMRR) project involves the construction of two facilities. The first, which is nearing completion, will

provide office and laboratory space needed to continue the study of the properties of plutonium and its behavior in the "pits" of US nuclear-weapon "primaries". The primary justification of the proposed second building, the Nuclear Facility (NF), is to support the mission of the TA-55/PF-4 facility at Los Alamos National Laboratory (LANL) to make plutonium pits. Since the 2003 Environmental Impact Statement, the estimated cost of the CMRR-NF has increased ten-fold while the usable space for plutonium work has been reduced by two thirds. It is difficult to believe that, had these increased costs and reduced capabilities been included in the 2003 EIS, the CMRR-NF would have been chosen over the alternatives. Fortunately, it is not too late to review its role and alternatives to its construction at this time.

4. The timing of the Obama Administration's decision to make a firm commitment to CMRR-NF, as reflected in one sentence on p. 42 its 2010 *Nuclear Posture Review Report*, appears to have been based on the perception that this was required to obtain enough Republican Senate votes to ratify the New START Treaty [See Henry Kissinger, George Shultz, James Baker, Lawrence Eagleburger and Colin Powell, "Why New START deserves GOP support," *Washington Post*, 2 December 2010]. It was not, to my knowledge, based on any revisit to a consideration of alternatives to CMRR-NF in light of its huge cost increase. The backing for CMRR-NF in 2009 *Final Report of the Congressional Commission on the Strategic Posture of the United States* similarly appears to be the result of an attempt by a polarized group trying to find a political way forward on nuclear reductions for the Administration and Congress. It was hoped by the Obama Administration that, by committing to the CMRR-NF at Los Alamos and the

Uranium Processing Facility at Oak Ridge, it could also get enough votes to ratify the Comprehensive Test Ban Treaty (CTBT). At this point, that seems to be a vain hope. The Obama Administration sees US ratification of New START and the CTBT as essential to maintaining the credibility of the Nonproliferation Treaty, under which the nuclear-weapon state parties commit to pursue nuclear disarmament in exchange for the non-weapon state parties committing to abstain from acquiring nuclear weapons. It is this political calculation, which has nothing to do with the technical value of CMRR-NF or alternatives to it, that Deputy LANL Site Manager and the Federal Roger Snyder is referring to in paragraph 27 and the Federal Defendant's Opposition is referring to at p. 18 top in their 20 Dec. 2010 affidavits. It is also the US treaty commitment to pursue nuclear disarmament that the Federal Defendant's Opposition affidavit disparages when it ridicules the Los Alamos Study Group's "political agenda of complete nuclear disarmament" (p. 23, bottom).

5. There is no objective need to cut corners in establishing the need or lack thereof of parts or all of CMRR-NF, the cost of which has ballooned far beyond original estimates, in a new, in-depth review of alternatives. There is no anticipated need to produce new pits for U.S. nuclear weapons for several decades. In 2006, the JASON group of consultants published a congressionally commissioned review of the pit aging studies done by LANL and the Lawrence Livermore National Laboratory (LLNL). The review concluded that "Most primary types have credible minimum lifetimes in excess of 100 years as regards aging of plutonium; those with assessed minimum lifetimes of 100 years or less have clear mitigation paths that are proposed and/or being implemented."

The oldest pit currently in the U.S. operational stockpile was produced in 1979, which is 32 years ago. For needed replacements of pits that have been subject to destructive testing and for the production of pits for experiments, even the existing TA-55/PF-4 production rate, which has been administratively limited to about 10 pits/year, is adequate.

6. NNSA plans to upgrade the single-shift capacity of TA-55/PF-4 to at least 80 pits per year by 2022 [*FY2011 Biennial Plan and Budget Assessment on the Modernization and Refurbishment of the Nuclear Security Complex*, Table D-2, 2010]. This is the same capacity that Los Alamos estimated in 2003 would be achievable if "some existing non-weapons missions may be moved elsewhere to provide about 3,000 square feet of additional floor space for pit manufacturing activities" [*Summary of TA-55/PF-4 Upgrade Evaluation For Long-term Pit Manufacturing Capacity*, LA-UR-03-2711]. This was certainly a modest requirement compared to the $3.7 to 5.8 billion monstrosity that CMRR-NF has turned into.

7. It is worth recalling that, in 2003, the same year NNSA published the CMRR EIS, it also published a draft Environmental Impact Statement (DEIS-0236) on a proposed $2-4 billion Modern Pit Facility that would have had a one-shift production capacity of 125-450 pits per year. The already-mentioned review by the American Physical Society, which concluded that this capacity was vastly oversized, contributed to the NNSA withdrawal of this proposal. Since that time, the downsizing of the U.S. stockpile and the findings on the expected longevity of the existing US pits have more than vindicated this decision. Given that the estimated cost of the CMRR-NF is now

$3.7-5.8 billion, its justification is similarly obsolete by now. Maximum flexibility should be preserved to rethink its design and the alternatives to building it at all.

The foregoing is signed and declared under penalty of perjury to be true and correct.

Dated: 6 January 2011

Frank N. von Hippel

SUBSCRIBED AND SWORN TO before me this 6 day of January 2011, by Frank N. von Hippel.

Notary Public

My Commission Expires:

Mary N. Chiorello
Notary Public
Expiration Date: 10-25-2011
Commision ID #2351633

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 STEVEN CHU, in his capacity as SECRETARY, DEPARTMENT OF ENERGY; NATIONAL NUCLEAR SECURITY ADMINISTRATION; THE HONORABLE THOMAS PAUL D'AGOSTINO, in his Capacity as ADMINSTRATOR, NATIONAL NUCLEAR SECURITY ADMINISTRATION,

Defendants.

AFFIDAVIT OF JODY BENSON

State of New Mexico)
) ss.
County of Los Alamos)

Jody Benson, under penalty of perjury, hereby declares as follows this 7 day of January 2011:

1. My education and experience have been presented to this Court in my previous affidavit in this case.

2. I make this declaration as an addendum to my earlier affidavit of November 2, 2010 in support of the Los Alamos Study Group's Motion for a Preliminary Injunction.

3. Defendants stated on page 14-15 of their "Federal Defendants' Opposition to Plaintiff's Motion for Preliminary Injunction" that "Jody Benson does not allege that she is a member of Plaintiff's organization...and her allegations of irreparable injury are therefore irrelevant." I am in fact a member of the Los Alamos Study Group.

The foregoing is signed and declared under penalty of perjury to be true and correct.

Dated: January 7, 2011

Jody Benson

Jody Benson

SUBSCRIBED AND SWORN TO before me this 7th day of January 2011, by Jody Benson.

Judy L. Martinez

Notary Public

My Commission Expires:

6-18-2011

JUDY L. MARTINEZ NOTARY PUBLIC STATE OF NEW MEXICO