nuclear watch new mexico

July 5, 2011

Mr. John Tegtmeier
CMRR-NF SEIS Document Manager
Los Alamos Site Office
3747 West Jemez Road
TA-3 Building 1410
Los Alamos, New Mexico, 87544
By e-mail to NEPALASO@doeal.gov

Nuclear Watch New Mexico (NWNM) respectfully submits these comments on the draft *Supplemental Environmental Impact Statement for the Nuclear Facility Portion of the Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory (LANL), Los Alamos, New Mexico* (hereinafter "CMRR-NF dSEIS").

We regret that we were not able to submit our comments by the NNSA specified due date of June 28. We did however inform you of that fact on that day. Our delay was caused by *force majeur*, that is the breakout of the Las Conchas Fire on the afternoon of Sunday June 26 threatened LANL and the Los Alamos townsite. We were continuing to write our comments at that time, but from that point were not able to do so until the following Thursday. We were working overtime because of the need to monitor the fire and respond to numerous inquiries from the public and media through phone, e-mail, TV our blog and web site and Skype.

The National Nuclear Security Administration (NNSA) has stated that it will accept CMRR-NF dSEIS comments "to the extent practicable" after the deadline. We believe that we have certainly met the bar of "practicability" given the circumstances. We would appreciate their serious consideration by NNSA. We look forward to the agency's withdrawal of this draft for the reasons stated here, and look forward to further comment once NNSA puts out a serious draft without an un-predetermined outcome.

About us: Through comprehensive research, public education and effective citizen action, **Nuclear Watch New Mexico** seeks to promote safety and environmental protection at regional nuclear facilities; mission diversification away from nuclear weapons programs; greater accountability and cleanup in the nation-wide nuclear weapons complex; and consistent U.S. leadership toward a world free of nuclear weapons.

We work on current budget, environmental, and operational issues of nuclear weapons facilities, primarily the Los Alamos National Laboratory (LANL). We have publicly and vocally pressed the Lab to finally change its mission away from nuclear weapons programs and move more toward critically needed programs, such as nonproliferation efforts, other new national security priorities (for example, port security), and pure

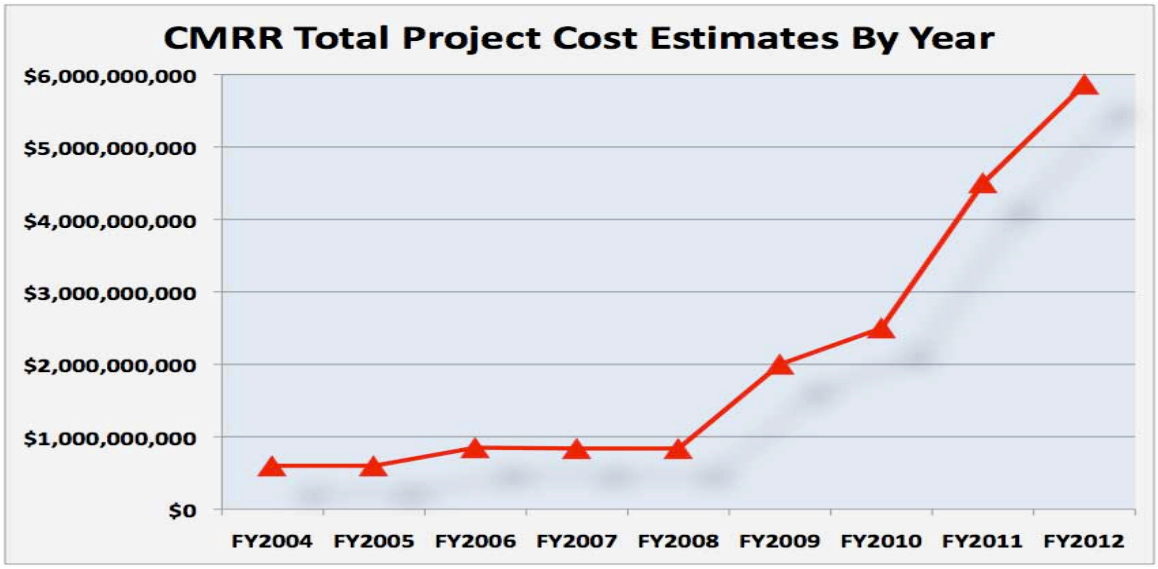
science and energy efficiency programs. Through detailed budget analyses, we hope to demonstrate that LANL can move towards these real national security issues and still contribute to the economy of northern New Mexico.

We appreciate public involvement in the NEPA process. We also support safe, monitored storage of radioactive wastes as a matter of national security and environmental protection. However, these should not be interpreted as support for more nuclear weapons, pit production, nuclear power, or the generation of more nuclear wastes. In our view, the best way to deal with the environmental impacts of nuclear waste is to not produce it to begin with.

Table Of Contents

Our overall recommendation: The hastily prepared draft Supplemental EIS is incomplete, inadequate and should be withdrawn until a more thorough Supplement or a completely new EIS can be prepared.

Estimated CMRR costs are out of control



Graph by NukeWatch NM; budget figures from annual NNSA Congressional Budget Requests

The Nuclear Facility is the keystone to an expanded plutonium pit production complex.

The Chemistry and Metallurgy Research Replacement Project-Nuclear Facility is no mere "replacement." First of all, the CMRR Project will be larger than the old CMR Building that it is "replacing," contrary to legislation requiring no net increase.

LANL and NNSA have repeatedly claimed that the Nuclear Facility is not a plutonium pit production plant and the dSEIS itself states, "Pit production does not take place at the CMR Building and would not take place in the CMRR-NF." *(dSEIS section 2.4, p .2-6)* That is narrowly correct but nevertheless disingenuous. The Nuclear Facility will provide crucial "materials characterization" (MC) and "analytical chemistry" (AC) [1] in direct support of plutonium pit production, and will be the keystone to an expanded production complex at LANL's Technical Area-55. The Nuclear Facility will be located next door to PF-4, LANL's existing production facility, and the two will be physically linked to each other via underground tunnel. The Nuclear Facility will also have a vault to store up to six metric tons of plutonium, which will supply both it and PF-4. The Senate Armed Services Committee itself has noted that "CMRR will be a category I [the highest security level of "special nuclear materials"] facility supporting pit operations in building PF–4." [2]

---

[1] The dSEIS defines analytical chemistry as "the branch of chemistry that deals with the separation, identification, and determination of the components of a sample." It defines materials characterization as "the measurement of basic material properties, and the change in those properties as a function of temperature, pressure, or other factors."

[2] Senate Report 111-201 - NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2011, p. 274, http://www.gpo.gov/fdsys/pkg/CRPT-111srpt201/pdf/CRPT-111srpt201.pdf

NNSA and LANL should amend this dSEIS and their supporting literature and media statements that claim it is not a pit production facility. Instead, the whole truth should be said that the Nuclear Facility is the keystone to an expanded plutonium pit production complex at LANL's Technical Area-55.

For ~six billion dollars the amount of jobs the Nuclear Facility creates is pathetic.

Local proponents of the CMRR-Nuclear Facility constantly point to the benefits of job creation. However, the dSEIS itself states the positive socioeconomic impacts of this new exorbitant facility are very limited.

Concerning construction jobs, "Peak direct (790 workers) plus indirect (450 workers) employment would represent less than 1 percent of the regional workforce and would have little socioeconomic effect." [3] The average number of construction jobs is 420 over nine years.[4]

Facility personnel would not change from existing levels, just their location, "Approximately 550 workers would be at the CMRR Facility (Modified CMRR-NF and RLUOB); they would come from the CMR Building and other facilities at LANL so the facility would not increase employment or change socioeconomic conditions in the region." [5]

Nuclear Watch NM argues that far more jobs could be created through other efforts, and not through a ~$6 billion dollar plutonium investment that will lock in Los Alamos' future to the hopefully shrinking business of nuclear weapons research and production. In terms of new long-term jobs the Nuclear Facility offers none, and robs taxpayers' money from other programs that could do far, far more for job creation.

NEPA requirements.

What is clearly at issue in this CMRR-NF SEIS process is what NNSA is legally obliged to consider in a "supplemental" environmental impact statement. The relevant DOE NEPA Implementation Regulation (which we note has the force of law) states

> (c) Agencies:
> Shall prepare supplements to either draft or final environmental impact statements if:
>
> (i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or
>
> (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.[6]

---

[3] dSEIS, p. S-39, parentheses in the original.
[4] Ibid., Table 2-1, Summary of CMRR-NF Construction Requirements, p. 2-15.
[5] Ibid., p. S-39, parentheses in the original.
[6] 10CFR1021 §1502.9 "Draft, final, and supplemental statements," http://ceq.hss.doe.gov/nepa/regs/ceq/1502.htm#1502.9

"Shall" means mean mandatory, not discretionary by the agency. "Or" means that a supplemental EIS shall be prepared in either case, with the *prima facie* demand that the necessary particulars be included in that supplement. While in this case both (i) and (ii) apply, NNSA admits only that it has substantially changed the Nuclear Facility project (and therefore wisely chose to prepare this SEIS). However, we argue that NNSA is legally obliged to embrace the other half of this equation, that consideration of significant new circumstances or relevant information is mandatory, and further that NNSA cannot cherry pick the significant new circumstances or relevant information that should be considered - - it has to consider <u>all</u> such worthy items.

This is further echoed by the Department of Energy (DOE) in its own 40 FAQs on NEPA compliance, as follows:

> 32. Supplements to Old EISs. Under what circumstances do old EISs have to be supplemented before taking action on a proposal?
> A. As a rule of thumb, if the proposal has not yet been implemented, or if the EIS concerns an ongoing program, EISs that are more than 5 years old should be carefully reexamined to determine if the criteria in Section 1502.9 compel preparation of an EIS supplement.
> If an agency has made a substantial change in a proposed action that is relevant to environmental concerns, or if there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts, a supplemental EIS must be prepared for an old EIS so that the agency has the best possible information to make any necessary substantive changes in its decisions regarding the proposal. Section 1502.9(c).[7]
> Emphasis added.

The 2003 CMRR EIS is more than seven years old, and there are major new circumstances and relevant information that the supplemental EIS <u>must</u> consider, instead of NNSA's arbitrary and capricious limitation of analysis to justify the Nuclear Facility's increased physical properties.

Some new and additional information and circumstance are the following:

• President Obama declared a future world free of nuclear weapons to be a long-term national security goal in his April 2009 Prague speech. At the same time he said that in the interim the U.S. nuclear weapons stockpile would be robustly maintained. The primary purpose of the CMRR-NF is to expand production capability of plutonium pits to up to 80 per year. [8] That is inconsistent with working toward and providing a good international example toward a nuclear weapons-free world.

• Nor is the CMRR-Nuclear Facility needed to maintain the stockpile. In 2004 Senator Bingaman, at NWNM's request, legislated a requirement that independent experts review

---

[7] "NEPA's Forty Most Asked Questions," DOE, http://ceq.hss.doe.gov/nepa/regs/40/30-40.HTM

[8] For documentation see our Attachment 3, Additional Background on the CMRR-Nuclear Facility and Expanded Plutonium Pit Production.

NNSA studies of plutonium pit lifetimes. In November 2006 that concluded that most pits last 85 years or more and that in any event mitigation measures were readily available.

• In large part as a result, Congress rejected Reliable Replacement Warheads and we maintain therefore the need for expanded plutonium pit production, hence the need for the CMRR-Nuclear Facility.

• Our nation has entered a severe and prolonged economic crisis that demands appropriate prioritization of federal taxpayers funds. The CMRR-Nuclear Facility is not clearly needed and currently has out-of-control costs. Its need should be reviewed afresh in a new draft SEIS that offers a true range of alternatives.

In our informal search for perhaps relevant NEPA case law concerning supplemental environmental impact statements we ran across the following filed by our close colleagues the Natural Resources Defense Council (NRDC):

> Plaintiffs moved for a preliminary injunction against a National Marine Fisheries Service (NMFS) regulation and a Letter of Authorization issued by NMFS to the Navy pursuant to the challenged regulation.
>
> The regulation and letter of authorization concerned the Navy's application for authorization for a five-year weapons testing program. The NMFS conducted an environmental assessment (EA). During the comment period, the NMFS received a comment that asserted that NMFS had an obligation to consider an alternative site for the testing. The final rule, when issued, was substantially the same as the proposal. It stated that NMFS had considered a very narrow range of alternatives and did not consider the possibility of testing outside the Outer Sea Test Range (OSTR), the area proposed by the Navy. Subsequently, the Navy issued its own EA which concluded that the testing would not have a significant environmental impact and that an EIS was not required, and which did contain some discussion of alternative sites both outside and within the OSTR. The NMFS later issued a Supplemental EA which also contained some discussion of alternative sites both outside and within the OSTR, and ultimately issued the Letter of Authorization.
>
> Plaintiffs alleged, in part, that defendants had violated NEPA by failing to consider alternative sites. The court found that promulgation of the Final Rule had been premised on an impermissible determination that alternatives outside the OSTR did not have to be considered. It also found that both the Letter of Authorization and the Navy's decision to proceed had relied upon a site-selection survey that had been conducted in an arbitrary and capricious manner and that **had excluded reasonable alternatives that met the requirements of the proposed action**. The court ruled that plaintiffs had demonstrated a strong likelihood of success on the merits and granted plaintiffs' motion for preliminary injunction.[9]

[9] "Supreme Court Cases on NEPA," Natural Resources Defense Council v. U.S. Dept. of

A different case brought by NRDC established that NEPA imposes a duty on Federal agencies to take a "hard look" at their proposals.[10] Crucial to that is the range of alternatives that the agency considers.

DOE's own NEPA Implementation Regulations state:

> 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 estimated costs 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.
> (d) Include the alternative of no action.
> (e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.
> (f) Include appropriate mitigation measures not already included in the proposed action or alternatives.[11] (Bolded emphasis added.)

We can't help but make a bad pun - - the NNSA is being "heartless" in this SEIS' analysis of alternatives. This document is dead without the beating pulse of a true range of alternatives.

This draft SEIS predetermines the outcome by not offering real alternatives.

This dSEIS is deficient because the NNSA constrains the range of alternatives in order to predetermine its preferred, self-interested outcome. Other than its preferred alternative, the agency offers only two NEPA straw men that are clearly nonstarters, inevitably leading to their preemptive dismissal, thus leaving only the self-interested decision to build the Nuclear Facility. Is this financially out-of-control project really in the best interests of the Nation? There is no analysis and consideration of real alternatives, as required by the National Environmental Policy Act.

Navy, 857 F. Supp. 734 (C.D.Cal. Apr. 26, 1994), http://www.markdemuth.com/law_lib/nepa/HO02courtcases.pdf Emphasis added.

[10] Natural Resources Defense Council v. Morton, 458 F.2d 827, 838 (D.C. Cir., 1972

[11] 10CFR1021 Sec. 1502.14 "Alternatives including the proposed action," http://ceq.hss.doe.gov/nepa/regs/ceq/1502.htm#1502.9

Two of the three alternatives provided in the draft SEIS are false alternatives.

The current "No Action" Alternative is to construct and operate a new CMRR-NF as analyzed in the 2003 *CMRR EIS.* But based on new information learned since 2004, the 2003 CMRR-NF would not meet seismic standards to safely conduct mission work. "Therefore, the 200[3] CMRR-NF would not be constructed." ***So this is not really an alternative.***

The "Continued Use of Existing CMR Building" Alternative in this current dSEIS states:

> Do not construct a replacement facility to house the capabilities planned for the CMRR-NF, but continue to perform operations in the existing CMR with normal maintenance and component replacements to sustain operations for as long as feasible. However the existing CMR is at the end of its life NOW. But this alternative does not completely satisfy DOE's stated purpose and need to carry out operations at a level to satisfy the entire range of DOE mission support functions.

So this is not really an alternative, either.

That leaves only the "Modified CMRR-NF" Alternative as the only alternative. Under the Modified CMRR-NF Alternative, which is DOE's Preferred Alternative, DOE would construct the new CMRR-NF at TA-55 with construction enhancements to address the seismic issues. ***Obviously, two of the three alternatives are non-starters, stacking the deck in favor of only the preferred alternative.***

Not only that, but NNSA eliminated without explanation the one credible and reasonable alternative that it did manage to think of, and even went so far as to announce in its October 1, 2010 Notice of Intent for the CMRR SEIS. As the NOI put it, this was "CMR Alternative 2: Same as CMR Alternative 1, but includes making the extensive facility upgrades needed to sustain CMR programmatic operations for another 20 to 30 years."

This is a reasonable alternative to building the Nuclear Facility, that is continue to perform analytical chemistry, material characterization, and actinide research and development activities in the old CMR Building; and make facility upgrades to that building needed to sustain programmatic operations for another 20 to 30 years. Crucial to the validity of this alternative is an analysis of the impacts of all current and proposed projects to extend the life of the CMR, including roofing work, exhaust fans, HEPA filters, structural and safety systems, and elevator repairs.

The CMR Upgrade Alternative has particularly salience given its cost were offered in the 2003 EIS as the primary reason why it would not be considered. But given that CMRR estimated costs have exploded from $660 million in 2004 to ~$6 billion now it is eminently reasonable to believe that a business case should be undertaken for upgrading the old CMR Building while not building the Nuclear Facility. This has the added virtues of pushing back costs for decontaminating and demolishing the old CMR Building (which will be yet another considerable taxpayers expense). Moreover, the timeline of 20 – 30 years (say ending 2035) comports better with the declared national security goal of a

nuclear weapons-free world, in contrast to the CMRR's expected operational lifetime of half a century (2024 to 2074?). A new draft SEIS should include the CMR Upgrade Alternative, along with a supporting business case (as NNSA has done in a number of other NEPA processes).

It is somewhat of a tangent, but NNSA does offer two "options" for Nuclear Facility construction, i.e., Deep and Shallow Excavation (to be further discussed below). Key to the thread of our argument here is that these are just that, construction options, both of which obviously assume that the Nuclear Facility will be built, and hence are not true "alternatives" in the NEPA sense of the word (and to NNSA's credit it doesn't try to pass them off as alternatives). Given this and the fact that the so-called "No Action Alternative" to build the NF as planned in 2003 or continue to operate the old CMR Building without upgrades are both non-starters, there are no alternatives to NNSA's predetermination to build the Nuclear Facility.

Nuclear Watch NM's preferred alternative, which we set forth in our CMRR dSEIS Scoping Comments, is to <u>not build</u> the Nuclear Facility; D&D the old CMR Building; and consolidate CMR missions in the new 185,000 square-feet Rad Lab and PF-4 (LANL's existing plutonium pit production facility). We believe this meets the test of being a reasonable alternative such that NNSA must analyze it. It is particularly reasonable given that, to repeat, the old CMR Building has two primary missions, which are the materials characterization and analytical chemistry of special nuclear materials. NNSA Administrator Tom D'Agostino wrote to the Defense Nuclear Facilities Safety Board that CMR materials characterization has already been relocated to PF-4. Thus, for this alternative to be realized, it becomes a matter of relocating CMR's other primary SNM mission, analytical chemistry, to PF-4.

That is made perhaps more possible by the pending closeout of two missions now being performed at PF-4, Mixed Oxide (MOX) fuel fabrication and the Advanced Recovery and Integrated Extraction System for dismantling pits and recovering plutonium, both of which were meant to be pilot demonstration projects for transfer to the Savannah River Site. But what is really needed, as we have argued for a few years now, is a "TA-55 Capabilities Study" that would evaluate missions needs in light of the fact that plutonium pit production capacity has not been expanded, and is uncertain to do so in the future. Obviously LANL has been operating under its currently approved level of 20 pits per year without the Nuclear Facility. Our proposed TA-55 Capabilities Study would analyze and recommend what is truly needed given broader national priorities (such as reducing the deficit), which a new CMRR dSEIS should incorporate.

One possible variant to our preferred alternative: The CMRR-NF is being designed with a vault for safe and secure storage of up to 6 metric tons of special nuclear materials (SNM). NNSA's claimed need for the Nuclear Facility should be de-linked from any possible need for a new SNM vault. NNSA should consider not building the Nuclear Facility while building a standalone vault. That vault could perhaps free up floor space at PF-4 (further obviating the need for the Nuclear Facility) and help de-inventory both it and the old CMR Building of materials at risk in a seismic event. Materials characterization and analytical chemistry could then be performed in PF-4 and the Rad Lab.

The Draft SEIS for the CMRR-NF fails to offer and analyze realistic alternatives.

After careful reevaluation of NNSA's contemporary purpose and need for plutonium pit production, a new document should be prepared that analyses a broader set of alternatives for meeting that purpose. **To be a credible analysis the NNSA must develop a greater spectrum of reasonable alternatives.** As examples to assist NNSA, we list in bullet form in Attachment 2 various permutations of reasonable alternatives that a new dSEIS could and should consider, were NNSA to offer a genuine range of alternatives.

We conclude that this CMRR-NF dSEIS does not meet legal NEPA requirements because of its failure to fully consider "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." Related, it also fails to offer a genuine range of alternatives. Regarding the latter, we now paraphrase "The Essentials of NEPA" by Wildlaw.org:[12]

> Under NEPA, an EA or EIS must include a review of the environmental impacts from all reasonable alternatives. It is the duty of the agency to develop and analyze the alternatives to the proposed action… However, the existence of only one reasonable alternative that the agency failed to look at will void the agency's decision…
>
> "The alternative section is 'the heart of the environmental impact statement,' 40 C.F.R. 1502.14; hence, '[t]he existence of a viable but unexamined alternative renders an environmental impact statement inadequate.' Citizens for a Better Henderson v. Hodel, 768 F. 2d 1051, 1057 (9th Cir. 1985). "As a result an agency must look at every reasonable alternative, with the range dictated by the 'nature and scope of the proposed action,' Block, 690 F.2d at 761, and 'sufficient to permit a reasoned choice.' Methow Valley Citizens Council v. Regional Forester, 833 F. 2d 810, 815 (9th Cir. 1987), rev'd on other grounds sub nom. Robertson v. Methow Valley Citizens Council, 490 U.S. 332 (1989)."
>
> "NEPA requires an EIS provide information in detail and consider every reasonable alternative to a proposed action. Citizens for a Better Henderson, supra, 768 F.2d at 1057; see 42 U.S.C. 4332(2)(c)(iii).
>
> Defendants' position is contrary to NEPA's underlying tenet, i.e., that agencies consider all reasonable alternatives so as to ensure an EIS fosters informed decision making. See Idaho Conservation League v. Mumma, supra, 956 F.2d at 1519-20.
>
> "Accordingly, the EIS' failure to address an alternative… compels this court to REMAND this matter for further administrative proceedings." - End of excerpt -

[12] For fuller context please see Attachment 1 from http://www.wildlaw.org/Eco-Laws/nepa-txt.html in these comments.

We conclude that NNSA is obliged to prepare and issue a new CMRR dSEIS that incorporates "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts," and offers a true range of genuine alternatives. We further assert that it is not sufficient to address our concerns in a Final CMRR SEIS that will offer no opportunity for public comment. **A new CMRR-NF DSEIS should be prepared and issued by NNSA so that the agency meets its legal NEPA obligations.**

However, we don't doubt that NNSA will balk over preparing a new dSEIS. As a general rule, an agency can change an environmental impact statement based on comments, since that is the purpose of a public comment period to begin with (and, in fact, federal agencies are required to at least respond to comments). Of course, if the changes are too dramatic, the agency arguably has to issue another draft and go through another round of comment, so the question is how extensively does the next round deviate from what the public commented on. We recognize that in general federal agencies have wide discretionary latitude, and in the general rulemaking context the test is whether the changes are the "logical outgrowth" of the original proposal plus the comments on it.

But in this case we again argue that since NNSA failed to offer a genuine range of alternatives to building the Nuclear Facility, and inappropriately constrained consideration of the dSEIS to just the physical changes of the CMRR-NF, that the agency has an obligation to withdraw this dSEIS and prepare another for public comment.

The Nuclear Facility's fundamental purpose and need must be reexamined.

The Draft SEIS claims, "The purpose and need for NNSA action [to build the Nuclear Facility] has not changed since issuance of the 2003 *CMRR EIS*. NNSA needs to provide the physical means for accommodating the continuation of mission-critical AC [analytical chemistry] and MC [materials characterization] capabilities at LANL beyond the present time in a safe, secure, and environmentally sound manner." Summary page 8 ("S-8").

To reduce NNSA's argument, it is essentially that the old CMR Building AC and MC missions must continue at LANL; therefore the Nuclear Facility's mission need has not changed; therefore *ipso facto* the Nuclear Facility must be built. But that is syllogistic, a non sequitur, again offering no true range of alternatives as NEPA legally requires. At issue in this dSEIS is <u>not</u> whether or not special nuclear materials AC and MC continue at LANL, but instead their appropriate scale and how to best configure their necessary "physical means" given new information and circumstances since the 2003 CMRR Project EIS.

NNSA's FY 2011 Strategic Plan states, "Many things have changed since the last National Nuclear Security Administration (NNSA) Strategic Plan was published in 2004," the same year that NNSA made its Record of Decision to proceed with the CMRR Project. The first thing the new strategic plan points to is President Obama's April 2009 Prague speech in which he called for a future world free of nuclear weapons. Therefore, there is an overarching need to reexamine the purpose and need of the Nuclear Facility, slated to operate as long as "toward the end of the twenty-first century" (S-16), and how it helps or obstructs reaching that lofty goal.

To be accurate, at the same time, Obama's Prague speech called for rigorous interim maintenance of the U.S. nuclear stockpile. His April 2010 Nuclear Posture Review (NPR) specifically endorsed constructing and operating the CMRR-Nuclear Facility as one of "the following key investments [that] were required to sustain a safe, secure, and effective nuclear arsenal." However, one thing the NPR did not do was to raise LANL's level of plutonium pit production from the currently sanctioned level of up to 20 plutonium pits per year, despite repeated major attempts by the NNSA to do so.[13]

Nevertheless, upon questioning at public CMRR meetings NNSA officials have said that the Nuclear Facility is to be built with 22,500 sq. ft. of plutonium processing space, the size of which a 2007 NNSA-commissioned study explicitly linked to a future production rate of 50-80 plutonium pits per year.[14] That same study also assumed that new design nuclear weapons, the so-called Reliable Replacement Warheads (RRWs), would be produced, requiring expanded plutonium pit production.

Related, in the FY 2007 Energy and Water Appropriations Bill, the Senate Appropriations Committee Subcommittee for Energy and Water Development stated:

> The Committee has reviewed the Department's Complex 2030 proposal and noted several assumptions regarding mission scope of the CMR-R facility that don't seem to match current planned activities. The Committee directs the Administrator to deliver a report by June 1, 2007, clarifying the cost and mission requirements this facility will be expected to address. [15]

In the required report NNSA stated:

> The first two Complex 2030 strategies, transforming the Nation's nuclear weapons stockpile and transforming the physical infrastructure of the nuclear weapons complex, specifically involve the CMRR. **The CMRR would contribute to the first strategy by supporting the interim production of pits for Reliable Replacement Weapons** should the Nuclear Weapons Council and Congress continue to support this concept beyond Phase 2A (which consists of developing RRW's costs, scope, and schedule). **The CMRR would support the second strategy by contributing to a modernized nuclear weapons complex**…

---

[13] These attempts to do so include: the 1996 Stockpile Stewardship and Management Programmatic Environmental Impact Statement (PEIS); the 2003 draft Modern Pit Facility EIS (never went to a final EIS); the 1999 and 2008 LANL Site-Wide Environmental Impact Statements; the 2006 "Complex 2030" PEIS; the 2008 "Complex Transformation" PEIS; and outside of NEPA processes the Obama Administration's April 2010 Nuclear Posture Review (upon which the NNSA draws heavily to justify the CMRR-Nuclear Facility).

[14] *Independent Business Case Analysis of Consolidation Options for the Defense Programs SNM and Weapons Programs*, TechSource, Inc., Santa Fe, New Mexico, December 2007, Ch. 5 p. 3 . It is one of 100's of Complex Transformation SPEIS reference documents at http://www.complextransformationspeis.com/links_ref_pdfs.html
To conveniently find it, search "TechSource 2007a"

[15] Senate Report, 109-274, page 155.

> Option I: Use existing LANL plutonium facilities only and defer all new plutonium facilities, including the NF. This option does not satisfy NNSA's mission needs because it provides limited pit production capability, does not address plutonium storage needs, and offers limited ability to absorb the transfer of missions currently conducted at LLNL.
> Option II: Use existing LANL facilities, supplemented by the NF to achieve a higher pit production capability and to support transfer of LLNL plutonium mission and material to LANL.
> Option IIA: Rely on the current NF design approach, which has not been optimized for pit manufacturing capacity. This option has been NNSA's plan since its CMRR Record of Decision in February 2004 and through the CMRR's CD-1 in May 2005.
> Option IIB: Expand the NF's capabilities to achieve a somewhat higher pit production capacity.
> Option III: Use existing LANL plutonium facilities as interim assets until a new consolidated plutonium facility is operational.
> Option IV: Combine Options II and III. Option II would allow for a delay in implementing Option III, or would serve as prudent risk management by assuring national security capabilities are retained while Option III is implemented.
> Thus, the CMRR has a significant role in Complex 2030 planning in either Option II or Option IV.[16] (Bolded passages are addressed below.)

NNSA later changed its "Complex 2030" proposal to "Complex Transformation," for which a Record of Decision was published stating:

> Manufacturing and research and development (R&D) involving plutonium will remain at the Los Alamos National Laboratory (LANL) in New Mexico. To support these activities, NNSA will construct and operate the Chemistry and Metallurgy Research Replacement–Nuclear Facility (CMRR–NF) at LANL as a replacement for portions of the Chemistry and Metallurgy Research (CMR) facility, a structure that is more than 50 years old and faces significant safety and seismic challenges to its continued operation…
>
> With respect to plutonium manufacturing, NNSA is not making any new decisions regarding production capacity until completion of a new Nuclear Posture Review in 2009 or later. **NNSA does not foresee an imminent need to produce more than 20 pits per year to meet national security requirements.** This production level was established almost 10 years ago in the ROD (64 FR 50797, Sept. 20, 1999) based on the Site-wide Environmental Impact Statement for Continued Operation of the Los Alamos National Laboratory (1999 LANL SWEIS; DOE/ EIS–0238). The ROD based on the

---

[16] *Chemistry and Metallurgy Research Building Replacement Project, Preface and Executive Summary,* NNSA, May 2007, parenthesis in the original. http://www.doeal.gov/SWEIS/OtherDocuments/427%20NNSA%202007%20CMR%20senate%20report.pdf

> 2008 LANL SWEIS (DOE/EIS–0380) continued this limit on production (73 FR 55833; Sept. 26, 2008). NNSA will continue design of a CMRR–NF that would support a potential annual production (in LANL's TA–55 facilities) of 20–80 pits. The design activities are sufficiently flexible to account for changing national security requirements that could result from a new Nuclear Posture Review, further changes to the size of stockpile, or future Federal budgets. Furthermore, because **NNSA's sensitivity analyses have shown that there is little difference in the size of a facility needed to support production rates between 1 and 80 components per year**, the future production capacity is not anticipated to have a significant impact on the size of the CMRR–NF. [17]

To address the bolded passages above in sequence:

- Congress shot down the Reliable Replacement Warhead, and we contend that with it Congress also shot down the need for expanded plutonium pit production, and therefore the need for the CMRR-Nuclear Facility.
- The CMRR Project as a whole has already substantially contributed to "modernization" of the nuclear weapons complex through construction of its first phase, the 180,000 square feet the Radiological Laboratory/Utility/Office Building (RLUOB or "Rad Lab"). The Nuclear Facility still does not need to be built for all the reasons we set forth in these comments.
- "Option I: Use existing LANL plutonium facilities only and defer all new plutonium facilities, including the NF" should be pursued precisely because plutonium pit production does not need to be expanded, plutonium storage needs can be met by building a new stand alone vault delinked from the claimed justification and rationale for the Nuclear Facility. We argue that a new CMRR dSEIS should examine the alternative of building a new vault without the Nuclear Facility. [18]
- We are aware that some special nuclear materials (SNM) have already been transferred from the Lawrence Livermore National Laboratory (LLNL) to LANL, but not missions. In fact, the opposite seems to be true, with for example the reported delegation of leadership to LLNL for a W78 Life Extension Program when that warhead was originally designed by LANL. In any event, a new CMR dSEIS should state what LLNL missions might be moved to LANL.
- While the delayed April 2010 Nuclear Posture Review (NPR) did endorse construction of the Nuclear Facility it did not expand the level of plutonium pit production. NNSA's statement that there is not an imminent need to produce more than 20 pits per year to meet national security requirements still holds true.
- NNSA's argument that "there is little difference in the size of a facility needed to support production rates between 1 and 80 components per year" as justification for the Nuclear Facility can be turned on its head. We can use it to argue our main point, that a

---

[17] Record of Decision for the Complex Transformation Supplemental Programmatic Environmental Impact Statement—Operations Involving Plutonium, Uranium, and the Assembly and Disassembly of Nuclear Weapons, NNSA, December 19. 2008http://www.complextransformationspeis.com/Plutonium%20ROD.pdf

[18] We will be consistent throughout these comments in our demand that this draft CMRR-Nuclear Facility be withdrawn and a new one prepared. But if NNSA fails to do and goes right into a final SEIS (which we oppose), we note that NNSA should nevertheless analyze the issues we raise in the final.

new dSEIS should consider the reasonable alternative of not building the Nuclear Facility, relocate the AC and MC missions of the old CMR Building between the new Rad Lab and PF-4, LANL's existing plutonium pit production facility.

Moreover, NNSA acknowledges that W88 pit production is coming to an end. W88 pit production was always the "camel's nose under the tent" in terms of DOE's rationale of why pit production had to be reestablished. W88 pits were in the production line at the Rocky Flats Plant when the FBI raided it in 1989 investigating environmental crimes and production was never resumed there (and a few years later the plant lost its nuclear weapons mission). DOE argued that because of the attrition of one pit type per year due to annual stockpile surveillance destructive analysis that it needed resumed production to at least take even with respect to W88 pits. Thus, in time, 6 years later than scheduled and at a cost we estimate greater than $3 billion, LANL finally managed to produce it first certified (i.e., "diamond-stamped" for the stockpile) W88 pit, and appears to be ending that production run after producing what we estimate to be under 35 pits. Between that and the rejection of the Reliable Replacement Warhead there is no apparent need for the production of new pit, and therefore the Nuclear Facility is not needed.

NNSA must justify why a new Nuclear Facility is needed.

Again, we maintain that the NF has always been about directly supporting expanded pit production. For example, from NNSA's own FY11 Stockpile Stewardship and Management Plan:

> Existing Los Alamos plutonium facilities are not sustainable and do not provide an inherent manufacturing capacity sufficient for the range of possible future scenarios…
> Path Forward…
> • Complete the design and begin construction of the Chemistry and Metallurgy Research Replacement Nuclear Facility at Los Alamos (a facility that conducts plutonium research and development and provides analytical chemistry and materials characterization to all plutonium programs such as surveillance, manufacturing, and plutonium disposition.) **Plan and program to complete construction no later than 2020, and ramp up to full operations in 2022.**
> • Increase pit processing capacity and capability at the adjoining PF-4 (part of the main plutonium facility) at Los Alamos to demonstrate pit reuse by 2017 and manufacturing by 2018-2020. **Plan and program to ramp up to a manufacturing capability of up to 80 pits per year in 2022**. Complete required investment in PF-4 infrastructure and waste processing capabilities in time to support expected plutonium capability in 2022.[19]

It is not coincidental that those two points are presented together; in fact they are co-joined, part of the one action to expand plutonium pit production capability. Concerning whether LANL's plutonium facilities are sustainable, we agree that the old CMR Building is not, at least for operations with Hazard Category 2 special nuclear materials

[19] NNSA FY11 SSMP, p. 23-24, http://www.nukewatch.org/importantdocs/resources/Stockpile_Stewardship_and_Management_Plan_2010.pdf Parenthesis in the original, bolded emphasis added.)

(SNM). However, not only is PF-4 clearly sustainable, but it has in fact already been retrofitted with additional glovebox lines and equipment to achieve expanded production capability of up to 80 plutonium pits per year, as evidenced by the following:

> LANL 08 Performance Evaluation Report
> Pit Manufacturing Equipment
> Measure 1.13 Build Six New W88 Pits & Install Equipment in FY 2008 to increase Pit Capacity to 80 Pits per Year by the Operational Date of a CMRR-Nuclear Facility (Incentive/Base)
> Expectation Statement:
> Build six new W88 pits and install equipment in FY 2008 to increase pit capacity to 80 pits per year by the operational date of a CMRR-Nuclear facility.
> Completion Assessment:
> LANS [Los Alamos National Security, LLC] has submitted completion evidence for award of full fee. NNSA has validated appropriate and timely completion.[20]

All that is lacking for the desired "range of possible future scenarios," that is "to ramp up to a manufacturing capability of up to 80 pits per year in 2022," are the expanded SNM materials characterization and analytical chemistry capabilities needed to directly support expanded pit production. This is where the CMRR NF comes in. But while various high-level documents have blessed construction and operation of the CMRR NF, none have allowed expanded plutonium pit production. The 1999 LANL Site-Wide Environmental Impact Statement set that level at 20 pits per year. Since that time, in one form or the other, the Modern Pit Facility EIS, the Complex 2030 Programmatic EIS, the 2008 LANL Site-Wide EIS, and the Complex Transformation Supplemental PEIS have all set out to formally expand plutonium pit production, but in each case failed to do so.

For there to be truly impartial NEPA review without predetermination there must be analysis of the fundamental need of the NF given that: 1) there has been no decision to expand beyond the currently approved production rate of 20 pits per year; and 2) there is no foreseeable decision to do so anytime soon. In effect, NNSA has predetermined that there will be expanded plutonium pit production (see SSMP above) which predetermines that the NF is necessary. A new draft SEIS should specifically examine the likelihood that there will be a formal decision to expand pit production, and the need for the Nuclear Facility in the absence of such a decision. [For more please see our Attachment 3.]

Current and proposed Life Extension Programs do not justify the Nuclear Facility.

We have repeatedly made the point that since the Reliable Replacement Warhead was rejected by Congress there is no need for expanded plutonium pit production and therefore for the Nuclear Facility. However, the NNSA 2007 report to the Senate Appropriations Committee did state that:

---

[20] LANL 08 Performance Evaluation Report**,** NNSA, http://www.doeal.gov/laso/GeneralDocs/FY%202008%20Performance%20Evaluation%20Report%20Final.pdf

Future Plutonium Missions:
The need for future plutonium capabilities is well established and includes:
• Meeting national security requirements for pit production for **life extension programs** and/or RRWs.[21] (Emphasis added.)

So it is not just a matter of RRWs. We anticipate that NNSA will now argue that in effect pretty much the same suite of production capabilities will be needed for possible future "intrusive modifications" to existing pits made during Life Extension Programs, and therefore the Nuclear Facility is needed. For starters, the Nuclear Facility will have little or no role in current and proposed "Life Extension Programs" that seek to extend the service lives of the W76 and W78 ballistic missile warheads and the B61 bomb. Those LEPs are scheduled to be completed or well underway before the NF is due to be operational in 2024.[22] We assert that taxpayer money misdirected into the CMRR-Nuclear Facility would be better used for maintenance and upgrades of existing facilities, programs and routine stockpile maintenance.

The question then becomes how is the CMRR-NF needed for Life Extension Programs beyond 2024, and further how does that comport with the Obama Administration's declared goal of a future world free of nuclear weapons? First, Life Extension Programs do not yet include virgin production of new plutonium pits, and there is no current indication that they will do so. However, NNSA has indicated that "intrusive modifications" to existing pits may be needed for the express purpose of enhanced "surety," meaning preventing the unauthorized (i.e. terrorist) use of nuclear weapons.

We think it may be very ill-advised to intrusively modify pits for surety purposes as any modifications to the nuclear explosives package could affect nuclear weapons reliability when they can no longer be full-scale tested (and the alternative that they be tested full-scale is even worse from a global nonproliferation perspective). Moreover, our nuclear weapons will always have to be protected by "guns, guards and gates" anyway because even if they had inherent surety the loss of nuclear weapons design information and materials would be extremely serious.

We argue for a very conservative approach to maintaining the U.S. nuclear weapons stockpile, one that intentionally tries to preserve the tested pedigree and minimize changes. We understand that U.S. nuclear weapons need replacement of limited life components, but that is well understood, already routinely performed over decades, and is not rocket science. In short, the CMRR-Nuclear Facility is not needed for maintaining the safety and reliability of the U.S. nuclear weapons stockpile. To the extent (if any) that the

---

[21] *Chemistry and Metallurgy Research Building Replacement Project, Preface and Executive Summary,* NNSA, May 2007, p. 5.

[22] See chart of LEP schedules, NNSA FY 2011 Stockpile Stewardship Plan, p. 21, http://www.nukewatch.org/importantdocs/resources/Stockpile_Stewardship_Plan_Annex_A_0610.pdf. Nuclear Watch believes this question is particularly apt given that the CMRR-Nuclear Facility is scheduled to be operational in 2024; Life Extension Programs will reportedly extend service lives up to 30 years; therefore the CMRR-NF will theoretically work on nuclear weapons that will be operational until 2054. Moreover, the CMRR-NF will reportedly have a service life of up to 2075. How does that comport with a future nuclear weapons-free world?

Nuclear Facility encourages profound changes to the already extensively test stockpile (particularly with respect to plutonium pits or the nuclear explosives package), the NF's very existence could undermine nuclear weapons safety and reliability and therefore national security.

The appropriate configuration of LANL's AC and MC missions.
NNSA will no doubt repeatedly argue that because the materials characterization and analytical chemistry missions of the old CMR Building are needed that the Nuclear Facility is needed. Again, Nuclear Watch is not using this CMRR-NF dSEIS to argue against LANL's retention of AC and MC capabilities. To be clear, we are unwavering in our commitment to a future nuclear weapons-free world, but the question for us is how to best get there.

We actually think it would be a setback should somehow LANL theoretically lose its SNM AC and MC capabilities, certainly politically with Congress. We are not knee-jerk reflexively against LANL, and recognize that AC and MC capabilities are necessary for a number of non-weapons applications that we want to encourage.[23] But we are adamantly against the Nuclear Facility, because we know it will set us back in progress toward a future nuclear weapons-free world. Again, the question is how to best configure remaining AC and MC capabilities to best meet and be aligned with the full mix of national security needs, including greater budget accountability and eradicating nuclear weapons, which are the only military threat that can strategically threaten our very national survival.

LANL's analytical chemistry mission has already been relocated to PF-4.
We think the answer has already been largely answered. First, as the dSEIS itself notes, "Most of these capabilities are found at the [old] CMR Building, although a subset of AC and MC capabilities resides in the TA-55 Plutonium Facility and other locations at LANL." (dSEIS, sec. 2.4.1, p. 2-7.) Thus AC and MC capabilities are already present at PF-4.

However, in a letter a few years ago NNSA Administrator Tom D'Agostino wrote to the Defense Nuclear Facilities Safety Board that:

> NNSA and LANL have made progress in consolidating capabilities within the CMR Facility and relocating capabilities to other facilities. For example, Actinide Analytical Chemistry operations have been consolidated into Wings 5 and 7 and Materials Characterization operations have been relocated to the Plutonium Facility.[24]

---

[23] For example, nuclear nonproliferation programs (especially we hope the development of arms control verification technologies); dismantlement efforts; and waste management

[24] Tom D'Agostino, NNSA Administrator to DNFSF Chairman A.J. Eggenberger, October 1, 2008, http://www.hss.energy.gov/deprep/2008/TB08O01A.PDF second paragraph

Given no need to expand pit production, the old CMR Building's analytical chemistry mission, used mainly in quality assurance for ongoing pit production, could be transferred to PF-4 as well. This would help to achieve NNSA's goal of better SNM consolidation in highly secure areas. CMR's non-Cat I/II operations, some of which we support (e.g., radioactive waste disposal R&D, IAEA inspector training, support of nonproliferation programs), could be transferred to the CMRR light labs and office space already being equipped for operational completion.

The bottom line is that CMRR's Nuclear Facility is simply not needed. At this point, NNSA and LANL don't really know what they want the Nuclear Facility for, other than expanded plutonium pit production. As a May 2008 DNFSB report noted, the Nuclear Facility's currently proposed design calls for a flexible, open floor plan to accommodate "as-yet unknown future missions," which the Board likened to a "hotel concept." Why spend billions on CMRR's Nuclear Facility if it has no clearly articulated mission need?

Nuclear Watch NM is, of course, not privy to the classified details of special nuclear materials (SNM) materials characterization and analytical chemistry. However, we have the impression that up to a hundred analytical chemistry samples may have to be analyzed while an individual pit is being produced. Thus the scale of plutonium pit production has everything to do with the scale of the needed analytical chemistry mission, since needed AC samples may be two orders of magnitude above actual production. But we have repeatedly pointed out that plutonium pit production is not being expanded anytime in the foreseeable future. It then follows that the scale of analytical chemistry operations does not have to expand (although we will concede to the fact that the quantity of needed AC samples is not necessarily linear to the amount of floor space needed for it).

A "Technical Area-55 Capabilities Study" is needed.

The recent House Energy and Water Appropriations report stated:

> The NNSA is not prepared to award that [CMRR] project milestone since it must first resolve major seismic issues with its design, **complete its work to revalidate which capabilities are needed**, and make a decision on its contracting and acquisition strategies.[25]

Here's where we are going with this: There should be a "Technical Area-55 Capabilities Study" that examines what plutonium capabilities are truly needed under the currently sanctioned level of 20 pits per year, and how to appropriately configure those capabilities. The old CMR's analytical chemistry mission could possibly be consolidated at PF-4, particularly if other operations at PF-4 are terminated as scheduled, specifically the pilot programs for MOX fuel fabrication and the related Advanced Recovery and Integrated Extraction System for recovering plutonium oxides, all slated for transfer to the Savannah River Site. A new dSEIS should incorporate the findings of such a capabilities study, instead of just predetermining the need for a Nuclear Facility. More

[25] House Energy and Water Development Appropriations Bill, 2012, p. 131, emphasis added.

broadly, the adverse example that building the Nuclear Facility could present to the international community also needs to be considered, especially when they fly in the face of our declared national security goal of future nuclear weapons-free world.

The NNSA's FY 2011 Strategic Plan states:

> As requirements for new or expanded capabilities emerge, our reinvestment strategy will use accepted life cycle management standards to integrate maintenance and replacement schedules with needs for new facilities and capabilities. P. 10.

But that presumes a need for "requirements for new or expanded capabilities," which is not clear and perhaps just self-serving to NNSA and its nuclear weapons complex. What are these needed new or expanded capabilities, if indeed we are seeking a future world free of nuclear weapons? If these needs exist, NNSA must explain why plutonium pit production must be expanded. If expanded production is not needed, then why is the CMRR-Nuclear Facility needed? A new dSEIS should address all of this.

To conclude this section:

- There is no indication that there will be a formal decision to expand future LANL production of new plutonium pits. In any event, it would require additional NEPA steps, which are not in the offing for the foreseeable future.
- The CMRR-Nuclear Facility dSEIS should be tiered off a decision to expand plutonium pit production, and not proceed before then.
- Life Extension Programs that might intrusively modify existing pits in existing nuclear weapons must be carefully reviewed by independent nuclear weapons experts as to whether they are necessary to begin with, and whether they could affect nuclear weapons reliability.
- In any event, the CMRR-Nuclear Facility will not be operational until those LEPs are completed or well underway. LEPs beyond that have not been yet proposed by the NNSA. The justification for the CMRR-Nuclear Facility should not be premised on Life Extension Programs.
- There should be a "TA-55 Capabilities Study" to determine what is truly needed to meet plutonium national security needs, including encouraging a future nuclear weapons-free world.
- We assert that the old CMR's missions of special nuclear materials characterization and analytical chemistry can be re-located between the newly built and equipped Rad Lab and PF-4.
- An option in that configuration is to build a stand-alone SNM vault, de-linked from the need to build the Nuclear Facility as a whole.
- A new dSEIS needs to offer and explore a genuine range of reasonable alternatives, such as we articulate above.

We offer further background in Attachment 3 on why PF-4's floor space could be reconfigured such that the old CMR's analytical chemistry mission could be relocated there, thereby obviating the need for the exorbitant and counterproductive Nuclear Facility. Critical to this is the fact that CMR's materials characterization mission has already been consolidated there. So why can't AC? In order to offer a full range of

reasonable alternatives as required by the National Environmental Policy Act, NNSA needs to consider that in a new dSEIS.

The mission need for the CMRR-Nuclear Facility does not justify exploding costs.

An unconscionable amount of taxpayer money is typically expended anytime DOE nuclear facilities are built. The expense associated with controlling radioactive and fissile materials is astronomical. Please analyze the impacts of diverting these funds away from renewable energy and nonproliferation programs at the Los Alamos National Laboratory (LANL) for a new facility to directly support production of plutonium pits or "triggers" for nuclear weapons, called the Chemistry and Metallurgy Research Replacement (CMRR) Project, and specifically the Nuclear Facility (NF).

Does management of a very large construction project fit into LANL's mission?

Where in LANL's mission statement does it state that LANL is to be a premier construction management company? The effort required to manage a $5 billion facility can only be a distraction to the work that LANL and only LANL can do. Does the shear size of the project demand so much time from DOE and LANL management that the smaller scientific, and everything is smaller, efforts get pushed aside? Has the shear size of the effort drawn resources from essential program?

A cost-benefit analysis is needed.

A legitimate draft SEIS would perform a cost-benefit analysis because of the Nuclear Facility's exploding costs. A relevant DOE NEPA Implementation Regulation states:

> If a cost-benefit analysis relevant to the choice among environmentally different alternatives is being considered for the proposed action, it shall be incorporated by reference or appended to the statement as an aid in evaluating the environmental consequences. To assess the adequacy of compliance with section 102(2)(B) of the Act the statement shall, when a cost-benefit analysis is prepared, discuss the relationship between that analysis and any analyses of unquantified environmental impacts, values, and amenities. For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations. In any event, an environmental impact statement should at least indicate those considerations, including factors not related to environmental quality, which are likely to be relevant and important to a decision.[26]

Given its exploding costs, if there was ever a project that needed a cost benefit analysis it is the CMRR-Nuclear Facility, which a new dSEIS should include.

---

[26] 10CFR1021 1502.23 Cost-benefit analysis," http://ceq.hss.doe.gov/nepa/regs/ceq/1502.htm#1502.9

Stated Congressional concerns over CMRR costs.

For good reason, the Department of Energy has been on the GAO's High Risk List for project mismanagement and cost overruns for 19 consecutive years. A few spectacular past and present examples of exploding costs are: the National Ignition Facility (originally estimated at $1 billion, now >$5 billion), the Hanford Vitrification Plant ($3B to ~$13B), the Chemical and Metallurgical Research Replacement (CMRR) Project at Los Alamos ($660M to ~$6B), and the Uranium Processing Facility at Y-12 ($3B to $6.5B). Congress should not allow DOE construction projects to go forward until their designs are 90% complete and credible baseline cost estimates are known.

The House Appropriations Committee recently reported:

> While the importance of modernization is understood, the economic crisis requires that the NNSA proceed with its modernization activities in a responsible manner and the Committee is seriously concerned with the recent cost growth reported for construction of the Uranium Processing Facility (UPF) and the Chemistry and Metallurgy Research Replacement (CMRR) Project. The current price tag for UPF is projected between $4,200,000,000 and $6,500,000,000 and the CMRR Nuclear Facility is estimated to cost between $3,700,000,000 and $5,800,000,000. These are conceptually replacement facilities to make operations more safe and efficient, but construction will also enable the reconstitution of certain production capabilities that have been lost but are needed to meet the needs of an aging stockpile. Many gaps remain in the planning efforts, and basic capability requirements and acquisition strategies continue to be re-evaluated. Modernization will take several years and the considerable number of variables still at play argues against an excessively aggressive funding curve. The construction of the new major facilities must not force out available modernization funding for the rest of the nuclear security enterprise. Therefore, the Committee supports the adoption of cost reduction strategies to make construction more affordable and to curb continued cost escalation. Further, these projects will be closely monitored to ensure that prudent project management practices are followed, and the Committee is prepared to make adjustments to the funding profiles to ensure that taxpayer funds are not wasted.[27]

A new dSEIS should analyze the House's concerns both with respect to escalating costs and whether they would "force out available modernization funding for the rest of the nuclear security enterprise."

The House Report further states:

[27] 112TH CONGRESS REPORT 1st Session HOUSE OF REPRESENTATIVES 112– ENERGY AND WATER DEVELOPMENT APPROPRIATIONS BILL, 2012, pp. 129 -130, http://appropriations.house.gov/UploadedFiles/FY_2012_ENERGY_AND_WATER_FULL_COMMITTEE_REPORT.pdf

Project 04–D–125, Chemistry and Metallurgy Research Replacement (CMRR), Los Alamos National Laboratory.—The Committee recommends $200,000,000, $100,000,000 below the budget request. The Committee fully supports the Administration's plans to modernize the infrastructure, but intends to closely review the funding requests for new investments to ensure those plans adhere to good project management practices. The latest funding profile provided to the Committee indicates that over half the funding requested for the Nuclear Facility would be used to start early construction activities. The recommendation will support the full request for design activities, but does not provide the additional funding to support early construction. The NNSA is not prepared to award that project milestone since it must first resolve major seismic issues with its design, complete its work to revalidate which capabilities are needed, and make a decision on its contracting and acquisition strategies.[28]

"Report on Footprint Reduction.—Despite promises for a leaner, more efficient and streamlined enterprise, the NNSA footprint has actually been growing over the past few years. Both the Uranium Processing Facility and the Chemistry and Metallurgy Research Replacement project will have more square footage than the legacy facilities they are meant to replace, and the High Explosive Pressing Facility will occupy nearly seven times the space of current operations. While new construction is adding footprint, no funding is planned for demolition activities beyond the completion of the Facilities and Infrastructure Recapitalization Program in 2013. Costs of demolition and decontamination work are not reported alongside new construction as required, nor are they integrated into the 30- year infrastructure priority lists. The costs of demolition and decontamination work are not being taken into account when making investment decisions and the timeline for demonstrating any savings in operating costs, as regularly described in the rationale for new facility construction, is being extended to the distant future. Since the NNSA is not meeting its requirement to demolish an equal amount of square footage for eachamount added, the Committee questions whether there truly is a commitment to a leaner, more efficient nuclear security enterprise..." [29]

The Senate of course has its concerns as well. The marked up FY 2012 Senate Defense Authorization Act has the following passage on the CMRR-Nuclear Facility:

The committee continues to believe that managing the design and construction of the CMRR, the UPF, and the other new NNSA nuclear facilities will be very challenging. Managing these projects in accordance with the DOE 413 order series and project management and guidance is essential for success, as is making sure that the projects have clearly defined and validated requirements that do not change. The NNSA is also directed to conduct a true independent cost estimate for both the CMRR Nuclear Facility, which is phase III of the CMRR project, and the UPF. The committee instructs the Government

[28] Ibid., p. 131
[29] Ibid, p. 123

> Accountability Office (GAO) to review these independent cost estimates to ensure the accuracy of the cost estimates. The committee also directs the GAO to evaluate the NNSA's efforts to ensure that all cost savings measures have been considered. The committee continues to be concerned that the phase III project is being divided into multiple sub-projects. Not- withstanding this management approach the committee directs as it did last year, that the CMRR baseline, when developed and sub- mitted to the committee at the CD–2 phase of construction, reflect all phases and subprojects for the purpose of developing a cost and schedule baseline and to be accounted for as a single project.[30]

While obviously we don't carry the weight of Congress, we use all of its concerns stated above to underscore and buttress our own. NNSA has repeatedly stated that it won't begin construction of the Nuclear Facility until its design is 90% complete. While not condoning construction of the Nuclear Facility, we agree with that in principle as the minimum needed for responsible use of taxpayers' money (especially given DOE's history).

But what constitutes "construction"? NNSA requested $300 million in CMRR funding for FY 2012, of which ~$270 million is allocated as "TBD" [To Be Determined], in contrast to its FY 2011 request which was all allocated. Upon questioning local Los Alamos Site Office officials have stated that once the SEIS Record of Decision is released NNSA intends to quickly launch into site preparation, which for the CMRR Project is no little thing. It may include building a materials warehouse, an electrical substation, shelter for construction workers, a concrete batch plant (maybe 2), and the installation of construction trailers. Clearly this is a substantial investment of taxpayers' money, but site prep costs are still not publicly available.

Still more site prep is planned for FY 2013 before 90% design is completed. This may include a 125' deep excavation for the facility to allow for a 225,000 cubic yard concrete "base mat" to mitigate seismic concerns, installation of utilities, rerouting an existing road, and building lay- down areas for construction materials storage. Again, costs are not known for these activities, but it could be up to $800 million for just so-called site preparation.

If allowed, this advanced site prep will snowball the CMRR-Nuclear Facility well before Congress knows final estimated costs. In the present fiscal climate Congress should exercise greater financial control over NNSA. Major site preparation should be included in a prohibition against construction before final costs are known. Site prep can be a huge investment onto itself, has immediate environmental impacts, and obviously prejudices moving forward before Congress has the total cost picture.

Taxpayer money misdirected into the CMRR-Nuclear Facility would be better put into maintenance and upgrades of existing facilities and programs. Because of its huge size

---

[30] 112TH CONGRESS SENATE REPORT 1st Session, 112–26, NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2012, p. 271, http://www.gpo.gov/fdsys/pkg/CRPT-112srpt26/pdf/CRPT-112srpt26.pdf

and the Lab's institutional investment into it, inside sources say that the CMRR-Nuclear Facility is the 900-pound gorilla sucking the oxygen out of the room for more important priorities such as critically needed stockpile surveillance and maintenance.

New cost information must force a re-evaluation of the alternatives.
Just as new seismic information has forced a re-evaluation of the construction alternatives, new cost information must force a re-evaluation of the alternatives considered. Cost considerations were given as the reason that the CMR alternative (with no upgrade) was included in this dSEIS:

> Continued Use of CMR Building Alternative However, this alternative is analyzed in this CMRR-NF dSEIS as a prudent measure in light of possible future fiscal budgetary constraints. (CMRR-NF dSEIS, Pg. 2-26)

Possible budgetary constraints could come in different sizes. There could be a budget that would allow the CMR to be upgraded but that would not allow the Nuclear Facility to be built. Analyzing an alternative to upgrade the CMR is a prudent measure and must be conducted in a new dSEIS.

A new formal business case must be executed.
Decisions made in 2004 EIS are outdated. The choice to build the Nuclear Facility is based on cost estimates made before it ballooned to ~$6B. In this dSEIS, cost is given as a factor to not upgrade the CMR, so cost must be a factor in going ahead with the Nuclear Facility. But vague references that upgrading the CMR would cost too much are not appropriate in this dSEIS. A formal business case must be executed. The passage below refers to reasons not to upgrade the CMR, but does not mention costs. We find it extremely doubtful that upgrade of the CMR would cost more than building a new Nuclear Facility.

> However, after consideration of the various engineering and geological issues; the costs of implementing upgrades to an older structure and developing a new security infrastructure; the costs of maintaining the security infrastructure and safety basis (in addition to that for TA-55); the mission work disruptions associated with construction; operational constraints due to limited laboratory space; and programmatic and operational issues and risks from moving special nuclear material between TA-3 and TA-55, this action was not analyzed further as a reasonable alternative to meet NNSA's purpose and need for action in this (CMRR-NF SEIS, Pg. S-20)

What does "after consideration" mean? It must read, "After a careful examining of all the meticulously prepared costs…" Who did the considering? The above passage almost looks like the beginnings of a business case, but where are the numbers? For example, how much does "operational constraints due to limited laboratory space" cost? Are we to assume that the proposed budget total for the above passage exceeds the proposed cost of the Nuclear Facility? Is building the Nuclear Facility just easier to do and its cost is not a consideration?

As a matter of fact, this dSEIS does state that upgrading the CMR would likely be less than the cost of building a new NF:

> Costs for the Wing 9 geotechnical investigations, structural and security upgrades, and construction of new support buildings and utilities installations, would be substantial, although not likely to approach those associated with either of the construction options considered under the Modified CMRR-NF Alternative. (CMRR-NF SEIS, Pg. 2-27)

Earlier decisions that lead to the current dSEIS were based on the alternative that cost the least:

> Bases for Decisions – Overview - NNSA's decision locates the three major functional capabilities involving Category I/II quantities of SNM at three separate sites where these missions are currently performed. The selected alternative, which is a combination of the Distributed Centers of Excellence and Capability-Based Alternatives, has the least cost and lowest risk. (Complex Transformation Record Of Decision #1)

Cost is mentioned as a factor in the final decision of the false alternatives in this dSEIS, as in the below. New alternatives, based on cost, must be included and given in a new dSEIS.

> DOD is developing an independent assessment of estimated cost range data for the CMRR-NF. Analyses and recommendations from these independent assessments, information in this CMRR-NF SEIS, and other programmatic considerations will be weighed as NNSA moves toward a final decision on the construction and operation of a CMRR-NF. (CMRR-NF SEIS, Pg. 1-19)

NNSA prepared detailed business case studies of the programmatic alternatives for the Complex Transformation SPEIS. These studies are available at *http://www.ComplexTransformation SPEIS.com*. They provide a cost comparison of the alternatives and include costs associated with construction, transition, operations, maintenance, security, decontamination and decommissioning, and other relevant factors. This is the example that shows what must be performed for this CMRR-NF dSEIS.

Costs of building a plutonium pit complex in a geologically unstable area are too high.

Weapons production at any cost is how we ended up with billions of dollars required for cleanup of LANL's Cold War legacy.

LANL is located between a rift valley (the Rio Grande in that area) and an extinct supervolcano (the Jemez Mountains) in a seismic fault zone (the Pajarito Plateau). An updated seismic hazards analysis was published in May 2007. It showed a potential huge increase in seismic ground motion and activity. In all likelihood, most of the over $3 billion in cost estimate increases since 2008 are due to efforts to address the increased seismic hazards. DOE must analyze whether $3 billion is too high of a premium in order to build a new Nuclear Facility at LANL.

At over $12,500 per square foot for the total delivered Nuclear Facility, it is clear that something is terribly wrong. The Nuclear Facility is all about the "laboratory" (we prefer to call it processing space) space. If only the 22,500 square feet of lab space is considered, the cost for special nuclear materials processing is $250,000 per square foot.

A new draft SEIS should examine CMRR compliance with DOE Order 413.
We share the Senate Armed Services Committee's concern that NNSA should follow the DOE 413 order series on the proper management of the acquisition of capital assets. We argue that NNSA should make clear in a new dSEIS its compliance strategy with those orders. We further argue that starting construction, including the possibly huge "site preparation" mentioned above, before 90% design is complete and credible costs estimated is contrary to the intent of the DOE Order 413 series. However, DOE orders are not legally binding and are self-regulated with major loopholes.

The CMRR project is requesting concurrent approval of preliminary design (CD-2) and commencement of construction (CD-3). At the time of the submittal for approval the design contains significant uncertainty, significantly larger estimates of ESTIMATED COSTS, and very large contingency in account of the risk carried by the project. Again, we don't quarrel with the fact that LANL must retain some analytical chemistry and materials characterization capabilities, but do strenuously argue over how to best configure them after all factors are considered (including, but not limited to, cost tradeoffs and consistent national policy toward a nuclear weapons-free world). We certainly question the wisdom of approving a fast track approach for a project that caries such large uncertainty and risk and has already experienced significantly escalating costs. NNSA projects have a long and distinct history of exceeding budget, delayed completion, and difficulty in fulfilling objectives. Is it the best choice for the nuclear weapons complex to commit to an accelerated schedule for a project that displays the hallmarks of not meeting expectations? If the project request is granted, the funding allocated, and difficulties arise, what will happen to the overall effort? In times of severe budget constraints is it not possible that other critical components of stockpile stewardship will suffer just to put more concrete in the ground?

Nuclear Watch suggests that rather then approve a fast track approach for this project now is the appropriate time to back track and revisit CD-1, approval of alternative analysis. Do we really know how much capability is required? Do we know if PF-4 and the CMR can accommodate the anticipated capability? Is there another site that will better suit the nation? Is LANS the appropriate contractor to manage construction of the facility?

The reasons to revisit the alternative analysis are many.

- The original analysis was performed prior to the restructuring of the contract to run LANL. Key assumptions on selection of the contractor and ties to the LANL mission have changed significantly.
- The alternative analysis was performed by a contractor that had a vested interest in the outcome and the lack of independence assured that locating the facility at LANL and managing the contract under the LANL contract was a given. This

influence continues today as the contractor is heavily influenced by the need to fund the large design staff and any answer that does not direct additional funds to LANS is not even considered.

- With estimated costs approaching $6B the CMRR project dwarfs all other projects at LANL. Nowhere in the LANL mission statement is there any indication that management of the construction of nuclear facilities is key to the laboratories mission. Including the construction effort within LANS portfolio is a distraction to management of the science that is the key to the LANL mission. The size of the project demands the majority of management cycle time. Just imagine attempting to request senior management support for hiring a new scientist when the calendars of senior management are full of meetings regarding how to respond to the increased estimated costs for CMRR. You will not stand a chance and the research that is key to the LANL mission is suffering as a result.
- When the estimated costs of the facility was ~$900M it was possible to come to the conclusion that collocation of the facility with the research conducted at LANL was the cost effective approach. Now with a estimated cost approaching $6B that is no longer the case. People and material are moved within the NNSA all the time, every day. Is continued collocation a benefit or a detraction?

It is clear that the CMRR project is at a critical stage. A configuration that ensures analytical chemistry and materials characterization capabilities is critical to interim maintenance of the stockpile while we await global nuclear disarmament. But how much will it cost? Should the nation commit limited funding to the fast track of a project that carries significant risk or should it husband its resources and seek a lower cost solution?

We are concerned that the CMRR Project has avoided due process of DOE Order 413, and think that an alternatives analysis should be generated from an independent source. With both NNSA and LANS so vested in the status quo any answer provided from within the project is suspect. This alternatives analysis should flow from a baseline TA-55 capabilities study that we have argued for earlier, and a new CMRR-NF dSEIS flow form that.

Is NNSA backing away from previously made CMRR-NF safety commitments?

The Defense Nuclear Facilities Safety Board has expressed concern that NNSA may be going back on previously made CMRR-NF safety commitments that Congress required the Board to certify. This could continue to raise safety issues that could further escalate costs. According to one media report:

> Federal safety auditors this week questioned whether the federal government is backing away from nuclear safety commitments in an effort to reduce the cost of a multibillion dollar plutonium complex being built at Los Alamos National Laboratory…
>
> Among the changes being considered in the replacement building's design are elimination of some of the building's fire suppression systems and ventilation equipment intended to prevent plutonium from leaking in the event of an earthquake and fire.

> The possibility of those changes has raised questions about whether federal officials are backing away from commitments they made when the building's design received preliminary safety certification in September 2009, according to a letter Tuesday from the head of the Defense Nuclear Facilities Safety Board to the National Nuclear Security Administration. "Clearly the Board's certification relied upon the future full implementation of these final design commitments by NNSA," Safety Board Chairman Peter Winokur wrote.
>
> Congress required the Safety Board's certification in order for Los Alamos to continue spending money on the project in 2009.[31]

All DNFSB risk analyses must be considered.

All Defense Nuclear Facilities Safety Board (DNFSB) reports and recommendations should be incorporated by reference into the new SEIS. DNFSB monitors the nuclear activities of LANL. The Board has made a number of critiques and suggestions over the years that should be incorporated into the new SEIS to improve future operational safety at LANL. The effects of LANL not following DNFSB recommendations in a timely fashion should be considered. We also ask that DOE recalculate the accident scenarios and consequences used in the 2003 CMRR EIS in a manner that addresses the concerns and comments expressed by the DNFSB in the past seven years.

The Shallow Construction Option is not mature and must not be considered as an alternative until analysis of this option is complete.

It is inappropriate to consider the Shallow Construction Option in this dSEIS. All environmental impacts of the Shallow Option are based upon assumptions that are not defensible at this time. Any evaluation of the Shallow Construction Option at this time is just wishful thinking unsupported. As this dSEIS itself states:

> The Deep Excavation Option is more mature, having undergone technical review by NNSA, NNSA's contractors, and the Defense Nuclear Facilities Safety Board. At this time, there is more uncertainty with the Shallow Construction Option. The Shallow Construction Option needs to be subjected to the same level of technical review as the Deep Construction Option so the two options can be evaluated on the same basis. (CMRR-NF SEIS, Pg. 1-13)

Most of the environmental impacts proposed in this SEIS for the Shallow Option end up being the same or similar to the Deep Option impacts. This is only speculation at this time.

Even if analyses of the Shallow Option are completed and the results are included in the final SEIS, the public will have been denied the opportunity to comment on these analyses, which is contrary to the intent of NEPA. This is unacceptable.

---

[31] *Safety Changes Planned for LANL*, John Fleck, Albuquerque Journal, February 10, 2011, <http://www.abqjournal.com/cgi-bin/email_reporter.pl?staff=yes>

Deep and Shallow Options cannot be constructed with the same amount of electricity.
As further evidence that the Shallow Option has not been fully vetted, some construction options are listed with the same impacts, which cannot be the case. For instance the dSEIS states that electricity (megawatt-hours per year) for construction of both deep and shallow options is the same - 31,000 mWh/yr (CMRR-NF SEIS Table 2-1). This cannot possibly be correct since they are using electric batch plants for the Deep Option.

The proposed alternatives must be clarified and added to.

NNSA proposed three alternatives for the CMRR-NF SEIS as published in its October 1, 2010 Federal Register Notice of Intent:

> **No Action Alternative:** The No Action alternative would be the construction of the CMRR-NF and the ancillary and support activities as announced in the 2004 [CMRR] ROD.
> **CMR Alternative 1:** Do not construct a replacement facility to house the capabilities planned for the CMRR-NF. Continue to perform analytical chemistry, material characterization, and actinide research and development activities in the CMR Building, with no facility upgrades, while performing routine maintenance at the level needed to sustain programmatic operations for as long as feasible.
> **CMR Alternative 2:** Same as CMR Alternative 1 but includes making the extensive facility upgrades needed to sustain CMR programmatic operations for another 20 to 30 years.

A new dSEIS is needed that is completely free of predetermination.

This process must be completely unprejudiced by the fact that the RULOB facility has been built, that hundreds of millions of dollars have been spent on NF design, and that the 2003 CMRR EIS, 2008 LANL Site-Wide EIS, the Complex Transformation Supplemental Programmatic EIS and the April 2010 Nuclear Posture Review have all called for construction of the NF.

We applaud NNSA's decision to undertake a supplemental environmental impact statement (SEIS) for the CMRR Nuclear Facility. But this is clearly an unusual SEIS given that CMRR's phase one, the Radiological Utility, Laboratory Office Building (RULOB, or "Rad Lab") has already been built, and further that hundreds of millions of dollars have already been spent on NF design. NNSA has not demonstrated that this is an impartial and un-predetermined process that leads to an objective decision to build the CMRR-NF or not because it has not offered real alternatives.

We are concerned that there is ample evidence of predetermination. For example, Brigadier General Garrett Harencak, NNSA Principal Assistant Deputy Administrator for Military Application, Office of Defense Programs, when "Asked if CMRR (at Los Alamos) and UPF (at Y-12) would continue on parallel tracks, he said, "Yeah, absolutely. We're committed, the administration is committed, the NNSA is absolutely 100 percent. We're committed to build at two sites. The NPR has said and come out and told us and the administration has told us we're going to complete the design, we're going to get into

construction and complete it by 2020 and get to work in these buildings by 2022. We are 100 percent committed to both." [32]

That sounds like predetermination.

There should be no funding for an expanded security perimeter to accommodate the Nuclear Facility until a Record of Decision (ROD) is issued for the CMRR SEIS. Similarly, any procurement activities for the NF must cease until the ROD is issued, which the draft SEIS should make explicitly clear.

To continue funding the design of the NF gives the appearance of predetermination. Final design is scheduled to begin this FY 2011. There certainly has to be enough information now to complete this SEIS competently, given that probably around $200 million has already been spent on NF design. We also contend that the NF, as currently designed, is not a generic design that can be built anywhere. It would be over-designed to address seismic issues for some possible other locations. Please discuss other possible locations that the NF, as designed, could be located. If design continues, please state how much of the current estimate is to address seismic concerns at TA-55. Please explain the rationale for continuing to design the NF while this SEIS is in progress.

If the decision to locate the NF at LANL was based on cost, this location decision must be revisited. The current estimate of ~$4 billion dollars to construct the NF is reason enough to revisit earlier decisions.

Explain why this SEIS continues before the Secretary decides whether the NF is needed or not. Explain how the capabilities that NNSA claims it needs match those provided by the proposed NF. Explain how past justifications for the NF will not prejudice the outcome of this SEIS.

No Action Alternative - All construction and program impacts must be reexamined.

Although construction of the CMRR-NF is now called the "No Action Alternative," all the construction and programmatic environmental impacts of this proposed facility must be reexamined. Very few, if any, of the construction impacts were adequately covered in the 2003 CMRR EIS, as it said, "The new building(s) proposed for the CMRR Facility are in the conceptual design stage and, as a result, are not described in great detail in the *CMRR EIS*." (CMRR EIS, Pg. S-27.)

In effect, all parameters of the NF have changed, because the facility analyzed in the 2003 EIS was "in the conceptual design stage" and now it is designed, so all aspects of the NF must now be reanalyzed in this SEIS.

Because the current design of the NF is more mature, analyzing the exact impacts of construction is now possible. The quantities and impacts of all materials to be used and removed in the proposed construction must be stated. For example:

---

[32] http://blogs.knoxnews.com/munger/2010/11/harencak_mum_on_nnsa_funding_p.html

- The total cubic yards of concrete must be stated
- The total amount of steel must be stated
- The amount of dirt to be removed and the plans for its disposition must be stated
- How have seismic issues been incorporated into the design

Please describe in detail the "ancillary and support activities" that are included in this alternative. The environmental impacts of these "ancillary and support activities" must be analyzed.

The programmatic impacts must also be reexamined. List all the proposed activities and analyze their impacts separately. Please state how many plutonium pits will be built each year. What is the total number of AC samples that the proposed NF will be capable of analyzing annually? What is the total number of MC samples that the proposed NF will be capable of analyzing annually?

What is the mission contingency space currently planned for the NF?

The 2003 CMRR FEIS stated:

> 2.4.1 AC and MC Capabilities
> These capabilities include the facility space and equipment needed to support nuclear operations... Most of these capabilities are found at the CMR Building, although a subset of AC and MC capabilities reside in the TA-55 Plutonium Facility and other locations at LANL. (CMRR EIS, p. S-27.)

Describe AC MC capabilities at TA-55, CMR, and name the other sites and the capabilities.

Did the design engineers justify more and bigger? What is the reality of the calculations of required sq footage for the NF?

CMR Alternative 1 – Questionable Alternative
Please define "feasible." A more refined timeframe must be stated. The current status of the CMR should be declared. How many wings are closed? What is the proposed square footage of the CMR that will be used? What is the proposed square footage of the CMR that will be used to support NF operations? Will current risk reduction activities continue under this alternative? If not, the impacts of not continuing these activities must be analyzed. Will the Lab still allow deferred maintenance to grow at the CMR under this alternative (as mentioned in National Nuclear Security Administration/Readiness in Technical Base and Facilities, FY 2011 Congressional Budget Pg. 160)?

Don't forget that the new, 200,000 square feet RULOB will be ready for operations in less than two years. Since continued use of CMR is now being considered any future work done there must be explained and analyzed.

CMR Alternative 2 – A Capability Study is Required

Because continuing use of CMR is proposed, a capabilities study is needed for all programs using the CMR and PF-4. For each program, include floor space required, projected life of program, and cost for upgrades.

Should the old CMR Building continued to be used for nuclear operations then installation of new stand-alone safes for Special Nuclear Materials (SNM) should be considered. From DNFSB Los Alamos Report for Week Ending October 1, 2010:

> Plutonium Facility – Fire Protection: Six fire-rated safes have been installed in the Plutonium Facility basement. These safes have been qualified to survive bounding Plutonium Facility accident scenarios and have been credited with a damage ratio of zero, meaning that material contained in these safes do not contribute to accident source terms.

Using safes such as these in the old CMR Building should be analyzed as an option.

Better yet, removing some special nuclear materials SNM from the old CMR Building and maintaining it as a Hazard Category 3 facility instead of a Hazard Category 2 facility must be considered. This would make seismic upgrades less burdensome and expensive.

The current status of the CMR should be declared. How many wings are currently closed? What is the proposed square footage of the CMR that will be used? Will current risk reduction activities continue under this alternative? If not, the impacts of not continuing these activities must be analyzed. Will the Lab still allow deferred maintenance to grow at the CMR under this alternative (as mentioned in National Nuclear Security Administration/Readiness in Technical Base and Facilities, FY 2011 Congressional Budget Pg. 160)?

All the proposed "extensive facility upgrades" must be listed and the impacts of these upgrades must be analyzed. The CMR Hazard Reduction (as mentioned in the National Nuclear Security Administration/ Readiness in Technical Base and Facilities, FY 2011 Congressional Budget Pg. 161) activities must be listed and the impacts of these activities must be analyzed. The CMR Risk Mitigation and Consolidation (as mentioned in the National Nuclear Security Administration/ Readiness in Technical Base and Facilities, FY 2011 Congressional Budget Pg. 160) activities must be listed and the impacts of these activities must be analyzed.

The 2004 CMRR ROD states, "However, the actual implementation of these decisions is dependent on DOE funding levels and allocations of the DOE budget across competing priorities." Please analyze the impacts of insufficient funding on estimated costs of the three proposed alternatives.

Please analyze the impacts of all current and proposed projects to extend the life of the CMR, including roofing work, exhaust fans, HEPA filters, structural and safety systems, and elevator repairs.

Please list the history of investments made in the CMR.

Don't forget that the new, 185,000 square foot; RULOB will be ready for operations in less than two years.

Because the CMR alternative is being considered, the proposed work to be done in CMR must be stated and analyzed. The proposed work in other facilities must be stated and analyzed as connected activities.

The use of new stand-alone safes for Special Nuclear Materials (SNM) must be considered. From DNFSB Los Alamos Report for Week Ending October 1, 2010:

> Plutonium Facility – Fire Protection: Six fire-rated safes have been installed in the Plutonium Facility basement. These safes have been qualified to survive bounding Plutonium Facility accident scenarios and have been credited with a damage ratio of zero, meaning that material contained in these safes do not contribute to accident source terms.

Using safes such as these must be analyzed as an alternative.

State what Hazard Category is planned for the CMR. From the 2003 CMRR FEIS P. 2-4:

> As noted previously, NNSA and UC at LANL have restricted CMR Building operations and have reduced SNM quantities allowed within the Building. As a result, the CMR Building is currently operated as a Hazard Category 3, Security Category III facility. A Hazard Category 3 facility is designated as a nuclear facility for which a hazard analysis estimates the potential for only significant localized consequences.

Keeping the CMR as a Hazard Category 3 facility must be considered. This would make the seismic upgrades less onerous.

Cost is a factor in these decisions. From the 2003 CMRR Final EIS Pg. S-20:

> S.2.2 Alternatives Considered but Not Analyzed in Detail Extensive Major Upgrade to the Existing CMR Building for Use Beyond 2010: The proposal to complete upgrades to the existing CMR Building's structural and safety systems necessary to meet current mission support requirements for the suite of capabilities that exist in the building today for another 20 to 30 years of operations was considered and evaluated by DOE and UC at LANL in the 1998 to 1999 timeframe. This approach to maintaining these mission critical nuclear support capabilities would require a capital investment in excess of several hundred million dollars for just two of the eight CMR Building's wings. The costs of upgrading the entire structure would equal or exceed construction costs for the proposed CMRR Facility.

Now it is time to analyze this option in detail. This current estimate for the NF is now ~$5 Billion. Would this cost more than upgrading the CMR? What is the cost of upgrading just two wings of the CMR? What is the cost of upgrading the entire CMR?

MDA C, potential release sites and the CMRR-NF.

This draft SEIS should be withdrawn until:
• Soil and pore gas samples can be taken in affected areas for each of the alternatives considered where excavation and soil disturbances will take place.
• These samples are thoroughly analyzed and the results are posted, in the spirit of verification, to the publically available RACER database.
• The sampling locations where MCL exceeds standards are plotted on the SEIS "Affected Areas" map
• The effect on VOC plume migration of surfaces exposed during excavation is examined.

> This CMRR-NF SEIS evaluates the potential direct, indirect, and cumulative environmental impacts associated with the alternatives analyzed. (Pg. iv)

> 10.1 Provide information on any PRS by TA that may be encountered during construction and any plans for what steps will be taken in the event a PRS is encountered.

> MDA C (located east of CMRR Project areas) was investigated for potential impacts to planned and proposed actions in TA-55. No contamination from this PRS exists in the CMRR Project areas in TA-55 or nearby areas currently being considered under the planned and proposed actions. [33]

Not true! The RACER database shows VOCs in pore gas samples in TA-50. Is this where construction activity and relocation of the roadbed will take place as connected to the Modified CMRR-NF Alternative?

The RACER database also reveals that there were no pore gas samples taken at the actual site of the excavation of the NF. For either excavation option the VOCs that are known to be in the pore gas of soil nearby (a few hundred yards) and can migrate relatively quickly, could currently be present at the proposed excavation site. Additionally the surfaces exposed during excavation could hasten the migration of the plume in that direction just as the canyon walls are known to do.
The dSEIS states;

> The 20-acre (8.1-hectare) site in TA-48/55 that would be required for the Modified CMRR-NF Alternative construction is mostly developed and previously disturbed land. There is a potential release site (PRS 48-001) that may affect a small portion of the TA-48 area proposed for use as a laydown area.
>
> During site development of the nearby area, if contamination is suspected, work would be stopped, characterization performed, and the necessary action and disposition completed. The extent of the potential release site is currently being evaluated; appropriate construction and operation measures would be

[33] CMRR-NF Project and Environmental Description Document Unclassified/Pre-decisional Information, p 26.

employed to minimize potential disturbance of contaminated soils or other effects on the potential release site. P. 22.

What does "suspected" mean? Work on site prep should be stopped now until samples can be taken and thoroughly analyzed.

If the extent of the potential release sites is still being "evaluated" then the SEIS must be withdrawn until that evaluation is complete and the results publically posted.

Construction Impacts – Deep Excavation and Shallow Excavation Options— Under either construction option, acreage would be disturbed in several technical areas in addition to TA-55. Surveys have been conducted to identify potential release sites (PRSs), and no unidentified or unexpected soil contamination or buried media have been encountered (LANL 2010c).

What sort of surveys and where? There is no record in the RACER database of samples being taken and analyzed from the excavation site. The reference document cited to support this statement concerns impacts to spotted owls, not soil and pore gas sampling.

There are, however, known PRSs located within the affected technical areas (for example, Material Disposal Area [MDA] C in TA-50), and the potential for contact with contaminated soil or other media would be appropriately considered throughout the construction process. For example, PRS-48-001 is being evaluated for potential impacts resulting from actions in the TA-48/55 laydown and concrete batch plant area. dSEIS p. 4-6.

The SEIS must be withdrawn until the results of evaluating PRS-48-001 and ALL other sites in the affected area can be incorporated into the Statement.

Proper precautions would be taken as needed to minimize the potential disturbance of this or other PRSs. As needed, actions such as appropriate documentation and contaminant removal would be taken by the LANL Environmental Restoration Program in accordance with the 2005 Consent Order7 and other applicable requirements. dSEIS, p. 4-56

How would removal of an as yet unknown quantity of material affect the budget and timeline of the project? Where would the material go? What additional impacts would result from this process? The SEIS must be withdrawn until these connected actions are known and documented.

dSEIS must analyze the impacts of air quality of the CMRR-NF project on Bandelier.

LANL is adjacent to the PSD [Prevention of Significant Deterioration] Class I Bandelier National Monument. There is no mention of any impacts to this Class 1 area in the SEIS. The only mention of PSD is in the glossary. PSD is designed to preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value.

Volcanic eruption impacts must be analyzed.
Reference *Preliminary Volcanic Hazards Evaluation for Los Alamos National Laboratory Facilities and Operations Current State of Knowledge and Proposed Path Forward, Issued: September 2010, LA-14426*, states, "The integration of available information on the volcanic history of the region surrounding Los Alamos National Laboratory (LANL or the Laboratory) indicates that the Laboratory is at risk from volcanic hazards." [34]

This dSEIS must be withdrawn and reissued when all known seismic hazards are addressed.

We have learned that new seismic analyses are being conducted at the Lab. This dSEIS is certainly premature until current seismic investigations are concluded. Even if current seismic investigations are completed and the results are included in the final dSEIS, the public will have been denied the opportunity to comment on the results. Pushing ahead with the CMRR-NF project without having the seismic risks in hand is what led to the need of this dSEIS. This is an on-going problem. A renewed decision to proceed with the Nuclear Facility at LANL was made in 2008 even though it was known that new seismic information would change the underlying assumptions of that decision as the Record of Decision states:

> New information about seismic risks at LANL (set forth in the report Update of the Probabilistic Seismic Hazard Analysis and Development of Seismic Design Ground Motions at the Los Alamos National Laboratory, 2007, LA–UR–07–3965) may change how hazardous materials are stored, operations are conducted, and facilities are constructed or renovated. NNSA is conducting a systematic review of LANL structures and operations in light of this information. This review, expected to be completed in about one year, will identify any necessary changes to address the new seismic information. NNSA will then implement the necessary changes to LANL facilities and operations based on the review's recommendations. (Record of Decision: Site-Wide Environmental Impact Statement for Continued Operation of Los Alamos National Laboratory, September 26, 2008)

DOE, NNSA, and LANS continue to roll the dice with the seismic risks at the CMRR-NF. If the seismic risks are understated, an earthquake could bring the Nuclear Facility down releasing its stock of plutonium into the environment. If the seismic risks are overstated, billions of dollars will be spent for no reason. Proceeding without knowing the exact seismic risks would represent a flagrant disregard of taxpayers' interests.

> Although project areas TA-3 and TA-55 have been mapped in detail for the presence of faults, areas showing no faulting on dSEIS Figure 3–5 do not necessarily represent an absence or lack of faulting. Large eastern and southern areas of LANL have not yet been mapped in detail for seismic hazards. Additionally, faults are only shown in areas where such faults are exposed or inferred. The end of a fault line on a map does not necessarily indicate

[34] Pg. vii, http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=0&osti_id=991237&Row=0)

> truncation of a fault, but may be indicative of the end of surface exposure or lack of evidence of a fault at that location. This scenario is common in urbanized areas or in areas where faults have been buried by younger sediments. Confirmation of the presence or absence of a fault at a particular site, that is, at the end of mapped fault lines, may require further site-specific detailed geologic investigations, even though mapping may already have occurred at that location. (Pg. 3-22)

It seems that the Lab infers liberally and maps when it is convenient. Steep topography on the Pajarito fault made field measurements difficult and the Rendija Canyon and Guaje Mountain faults have not been fully characterized or mapped. The Rendija and Guaje faults must be fully mapped. The inferred fault at TA-3 must be fully mapped. The original conclusions about the inferred fault under CMR were based on only 8 boreholes. Where is the trench across the inferred fault at CMR?

To address these increased seismic hazards, DOE now plans to excavate 250,000 cubic yards of earth under the proposed Nuclear Facility and fill the hole with concrete for the Deep Option. DOE must address the following questions: Is surrounding geology strong enough to support all that concrete? How much will the Nuclear Facility and all that concrete weigh? Has construction of a facility ever been done before on such an enormous concrete slab? If so, what were the results? Will a seismic event cause it to sink or shift? This dSEIS is analyzing the effects of this action, and this dSEIS should also examine the effects of removing it. Have these original design concerns been met?

> Design Concerns Arising from Ground Conditions - The existing properties of Qbt3L, coupled with its vertical proximity to the CMRR foundation grade and its lateral proximity to the slope of Two-Mile Canyon, have led to potentially significant issues for the design team and the PRT. The five design concerns are:
> · potential for static deflection (compression),
> · potential for hydro-collapse due to wetting,
> · potential for excessive movement of buttress due to dynamic slope instability,
> · inadequate resistance to dynamic sliding forces, and
> · seismic shaking and building response. (Kleinfelder 2010a, p. 2)

This dSEIS must be withdrawn and not rereleased until all issues with the seismic modeling software used are addressed.

Basic assumptions concerning the safety and location of the Nuclear Facility were based upon seismic modeling software. It turns out that questions concerning the accuracy of one of these programs have arisen. The Defense Nuclear facilities Safety Board (DNFSB) stated:

> Seismic analysis and design of high-hazard Department of Energy (DOE) defense nuclear facilities requires evaluation of soil-structure interaction (SSI) effects between the building and its supporting soil. The computer program SASSI (A System for the Analysis of Soil-Structure Interaction) is used extensively for this purpose within the DOE complex, as well as in the commercial nuclear power industry. Recently, SASSI users have identified

> significant technical and software quality assurance issues with this software. In August 2010, the Los Alamos National Laboratory (LANL) published LA-UR-10-05302, Seismic Response of Embedded Facilities Using the SASSI Subtraction Method, identifying issues with the SASSI subtraction method, which is extensively used in DOE's design and construction projects. The Defense Nuclear Facilities Safety Board (Board) is concerned that these issues could lead to erroneous conclusions that affect safety-related structural and equipment design at DOE defense nuclear facilities. (April 8, 2011 Letter, DNFSB Chairman Peter S. Winokur to the Honorable Daniel B. Poneman, Deputy Secretary of Energy)

We know that SASSI was used for designing the NF because of this statement from the 2001 Probabilistic Seismic Hazards Analysis:

> For vertical motions, a site-specific 2D SASSI study for a CMRR layered profile performed by Costantino and Houston (2005) … (Probabilistic Seismic Hazards Analysis \ LOS ALAMOS-LANL\ UPDATED REPORT_FINAL.DOC\21-JUN-07\ Pg. 6-6)

The DNFSB is currently awaiting a DOE review of the quality of SASSI modeling results. Until the DOE review is complete and the DNFSB agrees with those results, this dSEIS must be put on hold.

This draft dSEIS underestimates and misrepresents seismic hazards.

The draft statement used a value of 0.3 G as the peak ground acceleration value for the vertical plane, and not the value 0.6 G presented in the 2007 LANL Probabilistic Seismic Hazard Analysis. Design work has focused on 7.3 Richter scale earthquakes, but analogous earthquakes indicate that design should be increased to a minimum of 7.5. LANL scientists recommended further seismic studies in three key seismic reports written in 1995, 2007 and 2009. But those studies were not done. As a result, assumed values for six key parameters were inserted into computer programs to estimate the seismic hazard for the design of the proposed Nuclear Facility.

We incorporate by reference the report, *Public Comments of Robert H. Gilkeson, Registered Geologist, and Concerned Citizens for Nuclear Safety (CCNS) about the DOE 2011 draft Supplemental Environmental Impact Statement for the proposed Chemistry and Metallurgy Research Replacement Nuclear Facility (CMRR-NF) at the Los Alamos National Laboratory (LANL) Technical Area-55 (TA-55) Robert H. Gilkeson, Joni Arends, June 28, 2011.* A new dSEIS should reflect the voluminous information therein.

The shallow construction option is not mature and must not be considered as an alternative until analysis of this option is complete.

It is inappropriate to consider the Shallow Construction Option in this dSEIS. All environmental impacts of the Shallow Option are based upon assumptions that are not defensible at this time. Any evaluation of the Shallow Construction Option at this time is just wishful thinking unsupported. As this dSEIS itself states:

> The Deep Excavation Option is more mature, having undergone technical review by NNSA, NNSA's contractors, and the Defense Nuclear Facilities Safety Board. At this time, there is more uncertainty with the Shallow Construction Option. The Shallow Construction Option needs to be subjected to the same level of technical review as the Deep Construction Option so the two options can be evaluated on the same basis. (CMRR-NF SEIS, Pg. 1-13)

Most of the environmental impacts proposed in this SEIS for the Shallow Option end up being the same or similar to the Deep Option impacts. This is only speculation at this time.

Even if analyses of the Shallow Option are completed and the results are included in the final SEIS, the public will have been denied the opportunity to comment on these analyses, which is contrary to the intent of NEPA. This is unacceptable.

Deep and shallow options could not be constructed with the same amount of electricity.

As further evidence that the Shallow Option has not been fully vetted, some construction options are listed with the same impacts, which cannot be the case. For instance the dSEIS states that electricity (megawatt-hours per year) for construction of both deep and shallow options is the same - 31,000 mWh/yr (CMRR-NF SEIS Table 2-1). This cannot possibly be correct since they are using electric batch plants for the Deep Option.

Explain why LANL is still the best site for the Nuclear Facility.

The 2003 CMRR EIS was completed before the 2007 Probabilistic Seismic Hazard Analysis. One of the main requirements of DOE O 420.1b is to choose an appropriate site. It is not now clear that LANL is the appropriate site for the NF. Because of this, design overly-relies on the other requirements for defense in depth. Describe, in detail, how the design of the NF addresses the list of defense in depth requirements and the environmental impacts of these requirements. The specific DOE Order states:

> 3. REQUIREMENTS.
> b. Nuclear Facility Design.
> (1) Nuclear facility design objectives must include multiple layers of protection to prevent or mitigate the unintended release of radioactive materials to the environment, otherwise known as defense in depth. These multiple layers must include multiple physical barriers unless the basis for not including multiple physical barriers is documented in the DSA and approved by DOE.
> (2) Defense in depth must include all of the following—
> (a) choosing an appropriate site;
> (b) minimizing the quantity of material at risk;
> (c) applying conservative design margins and quality assurance;
> (d) using successive physical barriers for protection against radioactive releases;
> (e) using multiple means to ensure critical safety functions needed to—
> 1 control processes,
> 2 maintain processes in safe status, and

3 confine and mitigate the potential for accidents with radiological releases;
(f) using equipment and administrative controls that—
1 restrict deviation from normal operations,
2 monitor facility conditions during and after an event, and
3 provide for response to accidents to achieve a safe condition;
(g) providing means to monitor accident releases as required for emergency response; and
(h) establishing emergency plans for minimizing the effects of an accident.
(3) Hazard category 1, 2, and 3 nuclear facilities must be sited, designed, and constructed in a manner that ensures adequate protection of the health and safety of the public, workers, and the environment from the effects of accidents involving radioactive materials release. (DOE O 420.1B Attachment 2, 12-22-05, p. I-2.)

The Nuclear Facility was not sited with defense-in-depth in mind. As a matter of fact, the location is so dangerous that design and construction need to make up for the risks at the site. It is unclear if that can happen.

References must be given with sufficient detail that they can be thoroughly checked.

When a statement within the draft SEIS is referenced to a supporting document a shortened name is used and no page number is cited. A reviewer must use the index to know the name of the document(s). Even then, the search for verification is complex without a detailed citation like any high-school student is expected to be capable of including in scholarly research.

For instance, the reference "LANL 2011" is used 46 times in the dSEIS. Looking at the online reference documents, one will find that the reference document labeled "LANL 2011" is actually 24 separate documents. In some cases a reference points to a photocopied supporting document numbering several hundred pages without citing a section or page number. Since the photocopied document cannot be word-searched the entire document would have to be visually scanned by the reviewer in order to check the reference. Page numbers for the references must be given so that they can be checked in a timely manner in order to complete the review within the short comment period. For this reason the SEIS must be withdrawn, rewritten, and re-released.

Reference documents must be correctly cited and publically available at the time of the release of the draft SEIS.

A statement in the Draft SEIS that is about Operations Impacts references (LANL 2010c), which is about Biological Assessment Summaries and is not the correct reference. Here's the quote:

> Operations Impacts—Projected annual waste generation rates for operations at the Modified CMRR-NF and RLUOB are summarized in Table 4–34 (LANL 2010c), "LANL 200b" is not referenced in the Draft SEIS but is included in the supporting documents. (CMRR-NF dSEIS Pg. 4-58)

The (LANL 2010c) reference mentioned above is about Biological Assessment Summaries and is not the correct reference. The word "waste" is not in that document.

Following the official release of the Draft SEIS the Reference Documents were not available in their entirety. It was more than a week later before all of the documents were made available. The comment period should not commence until all the supporting material is available to the public.

The Draft SEIS is so capriciously written and so shoddily documented that the reviewer questions the seriousness of the Agency's attempt to comply with NEPA in their haste to rush through a Record of Decision.

Tribal notes must be included.

Tribal notes, similar to the *Greater Than Class C* EIS, must be included in this dSEIS. As the GTCC EIS states:

> DOE and Tribal Representatives have been working cooperatively over the last decade to improve consultation and communication related to decision making. This is an ongoing dialog, and DOE is committed to formal and meaningful consultation and interaction, at the earliest practical stages in the decision-making process, consistent with DOE's American Indian and Alaska Natives Tribal Government Policy (DOE Order 144.1). (Pg. 1-48)

These Tribal Nations participated in the GTCC EIS consultation activities**:**

Acoma Pueblo, Acoma, NM
Cochiti Pueblo, Cochiti, NM
Jemez Pueblo, Jemez, NM
Laguna Pueblo, Laguna, NM
Nambe Pueblo, Santa Fe, NM
Pojoaque Pueblo, Santa Fe, NM
Santa Clara Pueblo, Española, NM
San Ildefonso Pueblo, Santa Fe, NM

The tribal text is included in text boxes in throughout the GTCC EIS and full narrative texts are provided in an Appendix. This CMRR-NF dSEIS must be withdrawn and re-leased after Tribal Notes are included.

Describe the current status of plutonium shipping.

It is clear that LANL scientists must integrate closely with the work to be performed in the CMRR and this is used as a justification for co-location. The precedent of successfully working with SNL, LLNL, NTS, PTX, etc has already been set.

Please describe the current status of Pu shipments. Are Pu samples shipped to other DOE nuclear complex sites? Are any of these shipments because samples are being analyzed offsite? Is Pu shipped for experiments at other facilities? Any and all shipments must be analyzed in the SEIS. Is shipment of Pu a required capability for NNSA, independent of CMRR? If so, why must the CMRR be co-located with PF-4? Will the Lab have larger capacity with the NF as opposed to shipping the samples offsite? Will the NF be safer than shipping these samples? Will the NF cost more than shipping these samples?

All impacts of NF construction on the Consent Order must be analyzed.

Cleanup of the existing mess must be the priority – not the new Nuclear Facility.

DOE made a commitment to cleanup the legacy waste sites at LANL when it signed the Consent Order with the New Mexico Environment Department on March 1, 2005. The Order requires cleanup of certain sites by December 31, 2015. Analyze the impacts of construction activities for NF on cleanup activities, including those at the nearby Material Disposal Area C (MDA C).

- DOE proposes to realign Pajarito Road in order to accommodate the new NF. Impacts of this realignment must be included in this SEIS
- Impacts on possible excavation of MDA C must be analyzed as a connected action to the realignment.
- The closure plans for MDA C and MDA G have not been decided. How can the impacts to the closure plans of these, or any site, be known until the closure plan itself is known?
- Impacts on proposed waste operations at TA-63 must be analyzed.
- Explain how it is known that that all Consent Order milestones will be met while $5 billion is being spent on construction of the NF.

We request that construction on the NF not start until all requirements of the Consent Order are met.

Present waste processing and disposal facilities are failing and must be analyzed as connected actions.

DOE must analyze impacts to all other facilities that are required to support operations at the NF. Uncertainties surround the current support facilities. For example,

- DOE recently postponed a new Radioactive Liquid Waste Treatment Facility because the estimated costs increased from $100 million to $350 million;
- DOE's plans for a 63-acre expansion for low-level radioactive waste have been delayed for years; Area G will be closed in 2015 under the Consent Order; and
- DOE proposed a new Transuranic Waste Facility (TRUWF) to replace operations at Area G, but subsequently withdrew the proposal.

DOE must fully analyze all alternatives, including no construction of the NF, if these facilities are not available.

From the Final Complex Transformation SPEIS October 2008 Summary Pg. S-38:

> S.3.4.1.2.1 Los Alamos Upgrade Alternative
> Los Alamos could support pit production requirements using existing and/or new facilities at TA-55, which is the current site for the Plutonium Facility (PF-4). The planned CMRR Facility would be located in TA-55. In addition, LANL has several existing and planned facilities, all of which are included in the No Action Alternative, capable of supporting plutonium operations, including: the Radioactive Liquid Waste Treatment Facility, the solid waste characterization and disposal site (in TA-54), the Sigma Building (in TA-03), the Radiochemistry Facility (in TA-48), a new radiography facility (in TA-55), and a new solid-waste staging facility.

These facilities are examples of facilities that must be included in this SEIS. Upgrades to the electrical system are connected actions and must be analyzed!

Where will the wastes go?

To use DOE terminology: what is the "Path Forward?" Given the anticipated lack of disposal facilities for low-level radioactive, toxic, and hazardous waste at LANL, DOE must detail where that waste will be disposed, how it will be transported to an off-site facility, and the impacts to the communities along the route. Please describe the routes. DOE must specify how many shipments will occur by truck, train, or barge. Further, it must specify how many shipping containers will be needed, their costs, and whether they already exist or whether new containers will have to be developed and manufactured. WIPP closes in 2035.

Any analysis must include DD&D of the existing CMR Building.

The 2004 Record of Decision (ROD) for the CMRR Project stated the existing CMR building would be DD&D'd in its entirety. However, the actual implementation of these decisions is dependent on DOE funding levels and allocations of the DOE budget across competing priorities, including construction of a new NF.

At the time it was built, the existing CMR was the largest building in New Mexico at 550,000 square feet. The 2004 ROD stated DOE would submit a work plan; but it does not specify to whom the work plan would be submitted. DOE must provide its DD&D work plan as part of its NEPA analysis. We will review the plan now in order to ensure that the DD&D activities will become part of the complete NEPA analysis.

Update impacts to endangered species.

Include impacts to the Mexican Spotted Owl. The effects on the spotted owl of the extremely high pore gas samples for many solvents in TA-50 core zone must be analyzed.

Update the status of compliance with all applicable federal, state and local statutes and regulations.

Include all international agreements, and required Federal and State environmental permits, consultations, and notifications.

- What portions of the NF will need to be RCRA permitted?

Intentional destructive acts must be independently evaluated.

Provide a reference to an analysis that substantiates that the probability of an airplane crash during overflight does not exceed 10-6/yr (i.e., one in a million) conservatively calculated.

There needs to be a rigorous independent review of this document by an independent professional organization in order to increase public confidence in the conclusions, which a new dSEIS should incorporate.

Provide an unclassified overview of the classified appendix, omitting details, but including at least answers to the following questions:

a. Does the appendix include consideration of attacks using aircraft?

b. In determining risks from terrorist attacks, does the appendix assume continued funding for government agencies other than NNSA, such as the Transportation Security Administration?

c. Does the appendix estimate the consequences of a successful terrorist attack? If so,

have these potential consequences been brought to the attention of the President and Congress for consideration in decisions on nuclear weapons policy?

Provide a rigorous independent review of the classified appendix by an independent professional organization with appropriate clearances and include in the SEIS an unclassified summary of that assessment. Please include the identity of the organization and the amount budgeted for the review as an assurance that the review is independent and thorough.

What emergency response services are going to be available should a successful attack happen? What will be the impacts of an accident or attack during transportation? What emergency response services are going to be available should this happen?

The JASON report on *"rare events" in the analysis of intentional destructive acts* must be considered.

Describe the Intentional Destructive Acts models used in this dSEIS. From the JASON Report:

> "Rare events" specifically refers to catastrophic terrorist events, including the use of a weapon of mass destruction or other high-profile attacks, where there is sparse (or no) historical record from which to develop predictive models based on past statistics…One problem is that rare events are rare. There will necessarily be little or no previous data from which to extrapolate future expectations in any quantitatively reliable sense, or to evaluate any model. In the extreme, how can the probability of an event that has never been seen or may never even have been imagined be predicted?... There is no credible approach that has been documented to date to accurately anticipate the existence and characterization of WMD-T threats…The combined urgency of the rare event threat, the difficulty of evaluating rare event models, and the complexity of social sciences problems has led some to advocate the suspension of normal standards of scientific hypothesis testing, in order to press models quickly into operational service. While appreciating the urgency, JASON believes such advice to be misguided… There is danger in premature model building and the use of such models, to the exclusion of careful data collection.

What was the probability of the rare event of Fukishima? What was the probability of the rare event of the Las Conchas Fire? Modeling for this type of event must be recognized for what it is, and not relied upon as the only way to assess risk.

All potential impacts from postulated accidents must be analyzed.

Recent Nuclear Facility procurement documents request equipment that can withstand 27,000 rem. The Request For Information projects a "Design Basis Accident Environmental Conditions" for "One (1) accident estimated at 27,000 rem over the 50-year life of the CMRR-NF facility." Describe this accident. All analyzed accidents must be described in detail.

- Impacts to tourism must be analyzed if there is an accident.

- Impacts to property values must be analyzed.
- How would accidents at nearby facilities impact the Nuclear Facility and vice versa?

Emissions from the utilities must be reexamined.
The NF is now twice the size than analyzed in the 2003 EIS. The environmental impacts of larger boilers must be analyzed. Are the boilers larger for the larger NF? Do we need a new RLUOB permit?

Analysis of the Pajarito Road re-alignment must be included in a new dSEIS.
This road re-alignment is currently a categorical exclusion. Instead, it should be analyzed in a new dSEIS as a "connected action."

This SEIS should be supplemented with annual updates.
Because the NF project may last over ten years, updates to this SEIS should be prepared annually, analogous to the LANL SWEIS yearbook. They should list the changes and/or accuracy of the estimates made in this SEIS, with public notification and the opportunity to request a paper copy.

Global climate change and drought.
Of course it is not just military threats that can deeply impact our national security, it can also be global climate change, with perhaps particular relevance for LANL at this very time. The Lab and the Los Alamos townsite have faced mandatory evacuation for the second time in two years due to wildfire. We comment on that threat later, but here speak on the question of the prioritization of national needs. Over the last five years the nation and world have faced an increasing number of natural disasters, including the Las Conchas Fire. While it's currently impossible to link one specific natural disaster to global climate change, there is increasing scientific thought that global warming is responsible for increasing the probability that such events occur.[35] If so, then global warming, in combination with a century plus of mistaken forestry management that suppressed all fires, threatens national security by threatening the Lab itself, and, in the extreme, public health could have been adversely affected had the Las Conchas Fire widely burned on LANL property.

In its Complex Transformation Record of Decision NNSA wrote in response to a public comment that the Supplemental Programmatic EIS had failed to address impacts on global warming:

> The SPEIS assesses the direct, indirect, and cumulative environmental impacts of the No Action Alternative and reasonable alternatives for the proposed action. The assessment of impacts includes, where appropriate, the direct and indirect contributions to the emission of greenhouse gases resulting from operation and transformation of the nuclear weapons complex. …

[35] See, for example, *Scientists: Extreme Weather Link 'Can No Longer Be Ignored'*, Steve Connor, The Independent UK, July 2, 2011 http://readersupportednews.org/news-section2/312-16/6469-scientists-extreme-weather-link-can-no-longer-be-ignored

> Overall, the release of greenhouse gases from the nuclear weapons complex constitutes a miniscule contribution to the release of these gases in the United States and the world. Overall U.S. greenhouse gas emissions in 2007 totaled about 7,282 million metric tons of CO 2 equivalents, including about 6,022 million metric tons of CO 2…
>
> NNSA considers the potential cumulative impact of climate change in making decisions regarding its activities, including decisions regarding continuing the transformation of the nuclear weapons complex. Many of these decisions are applicable to the broad array of NNSA's activities, and therefore are independent of decisions regarding complex transformation. NNSA considered its contributions to the cumulative impacts that may lead to climate change in making the programmatic decisions announced in this ROD. These decisions will allow NNSA to reduce its greenhouse gas emissions by consolidating operations, modernizing its heating, cooling and production equipment, and replacing old facilities with ones that are more energy efficient. Many of these actions would not be feasible if NNSA had selected the No Action Alternative, which would have required it to maintain the Complex's outdated infrastructure. Federal regulations and DOE Orders require the Department of Energy to follow energy-efficient and sustainable principles in its siting, design, construction, and operation of new facilities, and in major renovations of existing facilities. These principles, which will apply to construction and operation of a UPF at Y-12 and the CMRR-NF at LANL, as well as to other facilities, include features that conserve energy and reduce greenhouse gas emissions.[36]

We take issue with NNSA's statement that "the release of greenhouse gases from the nuclear weapons complex constitutes a miniscule contribution to the release of these gases in the United States and the world." But we recognize that other things NNSA and DOE do to help mitigate greenhouse house emissions. But we can't help but note the irony that new nuclear weapons facilities will be LEEDS certified as green bomb-making plants.

As a reminder of what the underlying intent is that requires this review of the CMRR-Nuclear Facility:

> The purposes of this Act [the National Environmental Policy Act] are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will

[36] Record of Decision for the Complex Transformation Supplemental Programmatic Environmental Impact Statement—Operations Involving Plutonium, Uranium, and the Assembly and Disassembly of Nuclear Weapons, NNSA, Federal Register / Vol. 73, No. 245 / Friday, December 19, 2008 / Notices, http://www.federalregister.gov/articles/2008/12/19/E8-30193/record-of-decision-for-the-complex-transformation-supplemental-programmatic-environmental-impact

> prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man…[37]

This will fall on deaf ears, but how we wish that the money invested into the Nuclear Facility were redirected into combating global climate change instead, which could circle back to contributing to the physical safety of the Lab itself. But even more important than the ~$6 billion put into CMRR construction will be LANL's long-term deeper entrenchment into nuclear weapons programs that the Nuclear Facility will catalyze. We believe this will harm LANL, and therefore the nation, in the long run through opportunities missed.

Last December University of Arizona scientists published a major study that concludes that the American West may be entering a prolonged drought.[38] At the same time the CMRR project requires 16 million gallons of water each year for its operation. This calls into question whether it's appropriate to use precious water resources to expand nuclear weapons production at the possible expense of regional communities and the environment. It further calls into question whether expanded nuclear weapons production at Los Alamos is feasible given a possible long–term drought and rising climate warming punctuated with catastrophic forest fires, given that LANL and the Los Alamos townsite have had to be hurriedly evacuated twice in eleven years. Given that the Nuclear Facility is slated to operate until 2075 a new dSEIS should analyze the effects that possible climate change and prolonged drought may have on its operations.

A New dSEIS should analyze what effects long-term drought and climate warming might have on CMRR-Nuclear Facility operations.

It's possible, but still not yet known, that the Las Conchas Fire and the 2000 Cerro Grande Fire, in combination with forestry thinning and other fire preventative measures at the Lab, have essentially fireproofed LANL for now (however, countervailing that is the apparent fact that the Las Conchas Fire burned through substantial portions of the Cerro Grande Fire scar). The CMRR-Nuclear Facility is slated to be operational until 2075. A new dSEIS should analyze the effects that long-term drought and climate warming might have on CMRR-Nuclear Facility operations.

The methodology used for studying wildfires should be included in this analysis. Of particular importance would be an examination of what conditions permitted some of the same areas near the Lab to burn twice in the last eleven years and how effective wildfire mitigation efforts are in this increasingly dry climate.

How would the Nuclear Facility be secured in the event of an overwhelming wildfire?

---

[37] The National Environmental Policy Act of 1969, as amended, Sec. 2 [42 USC § 4321], http://ceq.hss.doe.gov/nepa/regs/nepa/nepaeqia.htm

[38] "A 1,200-year perspective of 21st century drought in southwestern North America," C.A. Woodhouse et al, http://www.pnas.org/content/107/50/21283.full

The effects of a very large fire must be examined in a new dSEIS. The Las Conchas fire is reported to be the largest documented fire in New Mexico history. A new dSEIS must consider the possibility that another fire may occur burning Lab property. How would the Nuclear Facility be secured in the event of an overwhelming wildfire?

What are the consequences of power transmission lines or transformers going down or burning during a wildfire (or serious seismic event) resulting in loss of power to the CMRR-NF? How long will backup generators in the Central Utility Building run without being resupplied with fuel or maintained? Are these backup generators diesel engine powered? How long will the engine's air filters remain unclogged in the presence of particulates in smoke as experienced during the Las Conchas and Cero Grande Fires?

Given the wildfires is Los Alamos the right location for the Nuclear Facility and expanded nuclear weapons operations?

At the time of this writing it is estimated that the direct cost to combat the Las Conchas Fire is over $20 million, and the fire is still burning. The long-term costs to remediate the area may top $1 billion. Is Los Alamos the right location for the Nuclear Facility and expanded nuclear weapons operations if at some point in the future the funds to protect such a facility from the consequences of catastrophic wildfires are no longer available?

- End of Comments -

Thank you for you consideration,

Jay Coghlan
Executive Director

Scott Kovac
Research and Operations Director

John Witham
Communications and IT Director

CC: John Tegtmeier, CMRR SEIS Document Manager
Roger Snyder, NNSA LASO
Elizabeth Withers, DOE AL

Attachment 1

Excerpts from "THE ESSENTIALS OF NEPA" by Wildlaw.org

Under NEPA, an EA or EIS must include a review of the environmental impacts from all reasonable alternatives. It is the duty of the agency to develop and analyze the alternatives to the proposed action. The agency does not have to look at every conceivable alternative, only those reasonable ones that will meet the same goals and objectives of the proposed one. Also, the existence of a reasonable, but unexamined, alternative that is sufficiently similar to another alternative that the agency did analyze will not void the agency's NEPA analysis. However, the existence of only one reasonable alternative that the agency failed to look at will void the agency's decision…

"The alternative section is 'the heart of the environmental impact statement,' 40 C.F.R. 1502.14; hence, '[t]he existence of a viable but unexamined alternative renders an environmental impact statement inadequate.' *Citizens for a Better Henderson v. Hodel,* 768 F. 2d 1051, 1057 (9th Cir. 1985). While the practicalities of the requirement are difficult to define, NEPA provides that all agencies of the Federal Government shall, to the fullest extent possible, '[s]tudy, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.' 42 U.S.C. 4332(2)(E). Whether a particular EIS has met this demand can best be determined by its purpose, which is to 'ensure that federal agencies have sufficiently detailed information to decide whether to proceed with an action in light of potential environmental consequences, and [to] provide the public with information on the environmental impact of a proposed action and encourage public participation in the development of that information.' *Kunzman,* 817 F. 2d at 492; *see also Citizens for a Better Henderson,* 768 F. 2d at 1056.

"As a result an agency must look at every reasonable alternative, with the range dictated by the 'nature and scope of the proposed action,' *Block,* 690 F.2d at 761, and **'sufficient to permit a reasoned choice.'** *Methow Valley Citizens Council v. Regional Forester,* 833 F. 2d 810, 815 (9th Cir. 1987), *rev'd on other grounds sub nom. Robertson v. Methow Valley Citizens Council,* 490 U.S. 332 (1989)."

A particularly instructive case is *Friends of the Bitterroot, Inc. v. U.S. Forest Serv.*, No. CV-90-76-BU, 25 E.L.R. 21186 (D. Mt. 1994). There, even though the Forest Service identified and considered seven alternatives, the court held that the Forest Service failed to comply with NEPA because the agency failed to consider just one additional reasonable alternative, namely an alternative to protect roadless areas. The agency claimed that such an alternative would not further the purposes of the proposed action, but the court disagreed. The court held:
"In Count II of their complaint, as amended, plaintiffs contend the Trail Creek EIS fails to adequately analyze all reasonable alternatives, including a less environmentally damaging alternative that would exclude logging and road building activity in existing roadless areas within the Beaverhead National Forest. Plaintiffs maintain the EIS should have addressed an alternative exempting the Beaver Lakes roadless area from the timber sale in order to preserve that area's value as secure wildlife habitat. In response,

defendants assert the alternative would not have met the management goals, standards, and objectives of the Beaverhead National Forest Plan. Defendants further maintain the development of such an alternative would not have added any new information to the EIS.

"NEPA requires an EIS provide information in detail and consider every reasonable alternative to a proposed action. *Citizens for a Better Henderson*, *supra*, 768 F.2d at 1057; see 42 U.S.C. 4332(2)(c)(iii). An agency's range of alternatives is reviewed under a 'rule of reason' standard that 'requires an agency to set forth only those alternatives necessary to permit a reasoned choice.' *California v. Block*, 690 F.2d 753, 767 (9th Cir. 1982) ('The touchstone for [a court's] inquiry is whether an EIS' selection and discussion of alternatives fosters informed decisionmaking and informed public participation.'). Additionally, NEPA does not require a separate analysis of alternatives which are not significantly distinguishable from alternatives actually considered or which have substantially similar consequences. *Northern Plains Resource Council v. Lujan*, 874 F.2d 661, 666 (9th Cir. 1989). As a result, an agency's consideration of alternatives is sufficient if it examines an appropriate range of alternatives, even if it does not consider every available alternative. *Headwaters, Inc. v. Bureau of Land Management*, 914 F.2d 1174, 1181 (9th Cir. 1990).

"In the case sub judice, the Forest Service examined seven alternate courses of action with respect to the Trail Creek project: six 'action' alternatives (Alternatives B, C, D, E, F, and G) and one 'no action' alternative (Alternative A). The 'action' alternatives proposed timber harvesting in varying locations, amounts, and methods in the Trail Creek area. Moreover, the action alternatives all called for varying degrees of timber harvesting in the Beaver Lakes roadless area.
"Defendants maintain the plaintiffs' preferred alternative 'would not have met the management goals, standards, and objectives defined in the Beaverhead National Forest by the Beaverhead Forest Plan.' Specifically, defendants maintain that 'because the management decisions to harvest timber in those areas have already been made at the Forest Plan level it did not need to be revisited.'

"The fact the Beaverhead Forest Plan designates certain land as suitable for timber management does not, however, obligate the Forest Service to proceed with the timber harvesting, nor does it preclude the Forest Service from exercising its discretion to consider other courses of action. Accordingly, to the extent defendants maintain an alternative aimed at preserving the Beaver Lakes roadless area would be 'pointless,' based upon the goals of the Beaverhead Forest Plan, the court concludes defendants' summary judgment motion is not well taken. **Defendants' position is contrary to NEPA's underlying tenet, i.e., that agencies consider all reasonable alternatives so as to ensure an EIS fosters informed decision making.** See *Idaho Conservation League v. Mumma*, *supra*, 956 F.2d at 1519-20.

"The Forest Service cannot deny there is some benefit to be derived from considering an alternative that preserves the Beaver Lakes roadless area. Plaintiffs, as well as the Montana Department of Fish, Wildlife & Parks, whose considerable expertise in the area of wildlife management is undisputed, expressed concerns that preservation of the Beaver Lakes roadless area warranted full consideration in the Trail Creek NEPA

process given the area's high security value for wildlife. Moreover, plaintiffs have alleged the roadless areas provide wildlife corridors essential for maintaining the biological diversity in the Northern Rocky Mountains.

"Given the contentious and long-standing debate in the State of Montana regarding the preservation of roadless lands and wilderness designation, the court concurs with plaintiffs' assertion that the NEPA process would have been properly serviced by development of an action alternative that preserved roadless lands in the Trail Creek area. Such an alternative would have afforded the opportunity for scientific and public participation and debate regarding the delicate balance between preserving natural resources and timber management.

"Accordingly, the EIS' failure to address an alternative preserving existing roadless lands in the Trail Creek area renders compels this court to REMAND this matter for further administrative proceedings." – End of excerpt - http://www.wildlaw.org/Eco-Laws/nepa-txt.html

Bolded emphases added that form the skeleton of our argument (and case law) that NNSA has failed to provide a credible range of reasonable alternatives as required by NEPA.

Attachment 2

Additional Reasonable Alternatives that a new dSEIS should analyze

Nuclear Watch New Mexico's preferred alternative:
Alternative #4 (sequential from the three so-called alternatives that NNSA presented in the flawed dSEIS)

- Do not build the Nuclear Facility.
- Decontaminate and demolish the old CMR Building.
- Consolidate CMR missions in the Rad Lab and PF-4.

Alternative #5

- Do not construct a replacement facility to house the capabilities planned for the CMRR-NF.
- Do not continue to perform analytical chemistry, material characterization, and actinide research and development activities in the CMR Building.
- Install SNM safes
- Further consolidate operations into existing facilities, particularly the new 200,000 square feet Rad Lab and PF-4.

Alternative #6

- Do not construct a replacement facility to house the capabilities planned for the CMRR-NF.
- Do not continue to perform analytical chemistry, material characterization, and actinide research and development activities in the old CMR Building.
- Consolidate CMR missions at the Rad Lab and PF-4.
- Build an SNM vault at TA-55.
    - This vault would free up floor space at PF-4 and CMR.
    - This vault would help de-inventory CMR and PF-4.
    - It will provide for enhanced safe and secure storage of special nuclear materials.

Additional Alternative #7

- Do not construct a replacement facility to house the capabilities planned for the CMRR-NF.
- Continue to perform analytical chemistry, material characterization, and actinide research and development activities in the CMR Building, but make extensive facility upgrades needed to sustain CMR programmatic operations for another 20 to 30 years.
    - All the proposed "extensive facility upgrades" must be listed and the impacts of these upgrades must be analyzed.
    - The CMR Hazard Reduction (as mentioned in the National Nuclear Security Administration/ Readiness in Technical Base and Facilities, FY 2011 Congressional Budget, p. 161) activities must be listed and the impacts of these activities must be analyzed.

    - The CMR Risk Mitigation and Consolidation activities (as mentioned in the NNSA/ Readiness in Technical Base and Facilities, FY 2011 Congressional Budget, p. 160) must be listed and their impacts analyzed.
    - Analyze the impacts of all current and proposed projects to extend the life of the CMR, including roofing work, exhaust fans, HEPA filters, structural and safety systems, and elevator repairs.
- Build an SNM vault at TA-55.
- Further consolidate operations into existing facilities, particularly the new 180,000 square feet Rad Lab and PF-4.

Attachment 3

Additional Background on the CMRR-Nuclear Facility and

Expanded Plutonium Pit Production

NNSA must justify why a ~$5 billion new Nuclear Facility is needed. We maintain that the Nuclear Facility has always been about directly supporting expanded pit production. For a current example, from NNSA's own FY11 Stockpile Stewardship and Management Plan (SSMP):

> **Existing Los Alamos plutonium facilities** are not sustainable and **do not provide an inherent manufacturing capacity sufficient for the range of possible future scenarios…**
> Path Forward…
> • Complete the design and begin construction of the Chemistry and Metallurgy Research Replacement **Nuclear Facility** at Los Alamos (a facility that conducts plutonium research and development and provides analytical chemistry and materials characterization to all plutonium programs such as surveillance, manufacturing, and plutonium disposition.) Plan and program to complete construction no later than 2020, and **ramp up to full operations in 2022**.
> • **Increase pit processing capacity and capability at the adjoining PF-4** (part of the main plutonium facility) at Los Alamos to demonstrate pit reuse by 2017 and manufacturing by 2018-2020. **Plan and program to ramp up to a manufacturing capability of up to 80 pits per year in 2022.** Complete required investment in PF-4 infrastructure and waste processing capabilities in time to support expected plutonium capability in 2022.[39]

Concerning whether LANL's plutonium facilities are sustainable, we agree that the old CMR Building is not, at least for operations with Hazard Category 2 special nuclear materials (SNM). However, not only is PF-4 clearly sustainable, but it has in fact already been retrofitted with additional glovebox lines and equipment to achieve expanded production capability of up to 80 plutonium pits per year, as evidenced by the following:

> **LANL 08 Performance Evaluation Report**
> **Pit Manufacturing Equipment**
> **Measure 1.13 Build Six New W88 Pits & Install Equipment in FY 2008 to increase Pit Capacity to 80 Pits per Year by the Operational Date of a CMRR-Nuclear Facility (Incentive/Base)**
> **Expectation Statement:**
> Build six new W88 pits and install equipment in FY 2008 to increase pit capacity to 80 pits per year by the operational date of a CMRR-Nuclear facility.
> **Completion Assessment:**

[39] NNSA FY11 SSMP, p. 23-24, http://www.nukewatch.org/importantdocs/resources/Stockpile_Stewardship_and_Management_Plan_2010.pdf (parenthesis in the original, bolded emphasis added)

> LANS [Los Alamos National Security, LLC] has submitted completion evidence for award of full fee. NNSA has validated appropriate and timely completion.[40]

All that is lacking for the desired "range of possible future scenarios," that is "to ramp up to a manufacturing capability of up to 80 pits per year in 2022," are the expanded SNM materials characterization and analytical chemistry capabilities needed to directly support expanded pit production. This is where the CMRR NF comes in. But while various high-level documents have blessed construction and operation of the CMRR NF, none have approved expanded plutonium pit production. The 1999 LANL Site-Wide Environmental Impact Statement set that level at 20 pits per year. Since that time, in one form or the other, the Modern Pit Facility EIS, the Complex 2030 Programmatic EIS, the 2008 LANL Site-Wide EIS, and the Complex Transformation Supplemental PEIS have all set out to formally expand plutonium pit production, but in each case failed to do so.

For there to be truly impartial NEPA review without predetermination there must be analysis of the fundamental need of the Nuclear Facility given that: 1) there has been no decision to expand beyond the currently approved production rate of 20 pits per year; and 2) there is no foreseeable decision to do so anytime soon. In effect, NNSA has predetermined that there will be expanded plutonium pit production (see SSMP above), which in turn predetermines that the Nuclear Facility is necessary. A new draft SEIS should specifically examine the likelihood that there will be a formal decision to expand pit production, and the need for the Nuclear Facility in the absence of such a decision.

A capabilities study of LANL's plutonium infrastructure is required. Some programs currently performed in PF-4 are scheduled to last for only a few more years. The ARIES and the MOX programs, for instance, are due to be completed by 2015, thus freeing up some floor space. Given that plutonium pit production is not being expanded (nor is likely to be expanded), there should again be rigorous review of whether the Nuclear Facility is truly needed and analysis of the feasibility of relocating old CMR missions to PF-4 and the Rad Lab while not building the Nuclear Facility. An update is needed to a 1997 analysis of "Alternatives for Increasing the Nuclear Materials Processing Space at Los Alamos for Future Missions." Please update the tables that show the floor space requirements for each program and what facility could be used for which program and operation. Please update this report and include a revised table in a new dSEIS analogous to this 1997 table below.

---

[40] LANL 08 Performance Evaluation Report**,** NNSA, http://www.doeal.gov/laso/GeneralDocs/FY%202008%20Performance%20Evaluation%20Report%20Final.pdf (bolded emphases added)

Table 1. Category 1 Laboratory Space Requirements.

	Present PF-4	Future PF-4	Future CMR	Change
DP-Programs				
Pit Fabrication - General	11,400	11,500	2,200	2,300
Pit Fabrication - Disassembly	0	0	1,000	1,000
Pit Fabrication - Assembly	0	3,100	0	3,100
Pit Fabrication - Radiography	0	700	0	700
Pit Surveillance	2,300	0	4,500	2,200
Pu-238 Heat Sources & Recovery	6,000	6,000	0	0
Stockpile Stewardship Programs	2,300	2,300	0	0
Special Recovery Line	700	0	1,200	500
Actinide Research & Development	3,400	3,400	1,000	1,000
Non-DP Programs				
Pu-238 Heat Sources & Recovery	3,000	3,000	0	0
Neutron Source Mat'ls Recovery	800	800	0	0
Fissile Materials Disposition - ARIES	1,000	1,500	0	500
Fissile Materials Disposition - MOX	3,000	3,000	0	0
EM Technology Support	800	0	0	–800
Non-Proliferation Technologies	0	0	0	0
Support Functions				
Aqueous and Pyro Recovery	13,400	13,400	0	0
Mat'ls Management and Rad. Control	4,400	4,400	2,000	2,000
Waste Management	2,400	2,400	1,200	1,200
Analytical Chemistry - Metallography	4,700	2,600	1,500	–600
Contingency Space	0	1,500	700	2,200
Totals	59,600	59,600	15,300	15,300

Alternatives for Increasing the Nuclear Materials Processing Space at Los Alamos for Future Missions *Author(s):* Drew E. Kornreich & Nelson S. DeMuth, April 25, 1997, http://www.fas.org/sgp/othergov/doe/lanl/lib-www/la-pubs/00326510.pdf.

Updated needed mission floor space requirements must to take into account the fact that the Rad Lab is nearly complete for operations. The table below from the 1997 study indicates that the Rad Lab can indeed absorb much of the old CMR Building's operations.

Nuclear Watch New Mexico closes by again repeating that between the Rad Lab and the fact that SNM materials characterization has already been relocated to PF-4 that the CMRR-Nuclear Facility is not needed and should not be built. PF-4 can and should be reconfigured as other missions are terminated to accept the analytical chemistry mission as well. This would conserve taxpayers' money and is more consistent in progress toward a future nuclear weapons-free world.

Table 6. Future Light Laboratory and Office Space Requirements for CMR and TA-55.

	Req'd. Sq. Ft.	Total	Currently Avail.	Deficit
Light Lab. Space Requirements for CMR				
Cold Lab. For Dislocated TA-55 Functions	1,400			
Cold/light Lab. For Analytical Chem. Capacity	4,000			
Light Lab. Missions in Wing 2	6,000	**11,400**	6,000	**5,400**
Light Lab. Space Requirements for TA-55				
Cold Laboratory	21,300	**21,300**	12,200	**9,100**
Office Space Requirements for CMR	22,000	**22,000**	0*	**22,000**
Office Space Requirements for TA-55				
Office	66,000	**66,000**	44,600	**21,400**

*Future offices will not be next to laboratories.