Los Alamos Study Group

Nuclear Disarmament • Environmental Protection • Social Justice • Economic Sustainability

July 16, 2012

To: Senator Carl Levin, Chairman, Senate Armed Services Committee (SASC)
Senator John McCain, Ranking Member, SASC
Senator Ben Nelson, Chairman, SASC Strategic Forces (SF) Subcommittee
Senator Jeff Sessions, Ranking Member, SASC/SF

Cc: Chairs and Ranking Members, House Armed Services Committee and SF Subcommittee
Chairs and Ranking Members, Appropriations Energy and Water Development subcommittees

Re: Factual and policy concerns regarding the Chemistry and Metallurgy Research Replacement Nuclear Facility (CMRR-NF) in S. 2467, the FY2013 National Defense Authorization Act (NDAA) as reported, and the accompanying *Report*

Introduction

We at the Los Alamos Study Group are concerned with the Senate Armed Services Committee's (SASC's) proposed policies concerning the National Nuclear Security Administration's (NNSA's) now-deferred Chemistry and Metallurgy Research Replacement Nuclear Facility (CMRR-NF) project and concerning NNSA's plutonium sustainment programs in general.

Beyond specific policy concerns, we are concerned that the SASC appears to misunderstand aspects of CMRR-NF. These misunderstandings are evident in S. 2467, the FY2013 National Defense Authorization Act (NDAA as reported from the SASC) and its accompanying *Report*. These misunderstandings could affect legislation regarding all plutonium-related capital and operating programs, not just in the present year and Congress but afterwards.

The *Report* contains statements regarding CMRR-NF which are not factual, others which rely on unstated sources which contradict agency testimony without further explanation, and others which are misleading. These defects make the *Report* a poor basis for informed discussion on plutonium issues in this and future years. The primary purpose of this letter is to try to set the record straight to the best of our ability.

Part of the problem lies in the opacity of the Administration's plans. NNSA has not submitted required overall and program-specific planning documents,[1] a situation which prevents objective analysis by outside parties and makes effective oversight difficult. Congressional testimony has also been less than fully clear in certain respects.

Before proceeding further, I would like to thank Dr. Jonathan Epstein, SASC Counsel, for meeting with me and for his help in better understanding the Committee's decisions and the *Report*.

As regards whether to delay CMRR-NF or not, we concur with the Nuclear Weapons Council (NWC) and its component agencies (see below) and with congressional appropriators, who all agree that CMRR-NF should be delayed – for the same reasons we provided a year ago.[2]

---

[1] Discussed in a letter from Gene Aloise, Government Accountability Office (GAO), to SASC Chair Levin and Ranking Member McCain of June 7, 2012, at http://www.lasg.org/budget/GAO_NDAAltr_7Jun2012.pdf.

[2] Los Alamos Study Group, Reasons Not to Build, or to Delay CMRR-NF (pdf), May 22, 2011.

Had Congress taken our advice on these matters years ago, NNSA plutonium programs would be on a more stable basis today and more than one-half billion dollars would not have been spent – "*wasted"* might be more accurate – on CMRR-NF's ever-evolving but now obsolete design.

We believe that the project's management problems, one of which has been the failure to evaluate better alternatives from the beginning and later, as others became available, are so egregious as to be illegal. We filed two lawsuits to address some of the issues, both of which are still active or under appeal.[3] House and Senate appropriators have also said alternatives should have been considered before now in their reports this year.

Given the huge sums and the perennial nature of the project management problems involved, which involve billions of dollars in cost overruns and years of schedule delay, we believe that instead of project endorsement as the SASC has recommended, a broad, independent inquiry is warranted. We would be available to help frame such an inquiry.

The CMRR-NF *volte face*, which has caused so much congressional confusion and consternation, could have been prevented if NNSA had exerted more oversight over the LANL management and operating (M&O) contractor, or if Congress had exerted more oversight. The National Environmental Policy Act (NEPA) requires NNSA to examine reasonable alternatives in the environmental context, but NNSA did not do so. The initial cost estimates were absurdly low, but the responsible parties did not question them. The scope of the project fluctuated dramatically (first up, then down), which also should have been a clear signal of trouble.[4] Some M&O contractor staff, whose employer stood to gain billions of dollars from the project, knew the seismic risk was much higher than officially presented early in the project, as did NNSA. A searching inquiry would uncover these and other reasons as to why project costs ballooned so greatly even as the scope of the project decreased, the combined effect causing the cost per useful square foot of laboratory space to explode by a factor of 30-45 from initial estimates in 2003 to the neighborhood of $150,000/sq. ft., which is 25-40 times more than prior LANL nuclear facilities, in constant dollars.[5]

It is difficult to see how the nuclear warhead enterprise, which is run almost entirely by contractors with only the thinnest federal presence,[6] can be managed in a cost-effective manner[7] if fiascoes like CMRR-NF are forgotten – or worse, doggedly pursued without understanding.

---

[3] http://www.lasg.org/CMRR/Litigation/CMRR-NF_litigation.html.

[4] The original CMRR proposal (in 2000 and 2001) did not include a Hazard Category II nuclear facility at all. See LANL *Comprehensive Site Plan 2000*, at http://www.lasg.org/CMRR/Litigation/Mello_aff3_ref/Mello_Aff3_All_References.pdf, p. 16. The original plan, as stated there and in the subsequent year's plan, was for a facility that would not store or handle more than 900 grams of plutonium, costing an estimated $375 million in all, not much more than the cost of today's Radiological, Utility, and Office Building (RLUOB). No vault was contemplated. At that time, the nuclear arsenal was roughly twice as large as today's. The SASC bill and its House counterpart fail to mention the many-fold growth in scope and cost of this project. The proposed project became a large Nuclear Facility with the advent of the G.W. Bush Administration. The subsequent downscoping is discussed in GAO, "Modernizing the Nuclear Security Enterprise: New Plutonium Research Facility at Los Alamos May Not Meet All Mission Needs," GAO-12-337, March 2012, p. 21, www.gao.gov/products/GAO-12-337.

[5] Analysis in affidavit of Greg Mello, January 14, 2011, pp. 40-41, at http://www.lasg.org/CMRR/Litigation/Mello_aff3_14Jan2011.pdf.

[6] NNSA's M&O contractors spend more than 97% of the agency's budget.

[7] "Sen. Carl Levin, the Michigan Democrat who heads the powerful committee, said "defense has to contribute" to a compromise to head off the across-the-board, $55-billion-a-year cuts required by the budget compromise that Congress reached last year. The provision, known as sequestration, will be triggered on Jan. 3 if Congress doesn't come up with a 10-year, $1.2 trillion deficit reduction plan or a compromise to change the law by the end of this year. Levin suggested that

Hopefully the upcoming hearing this week in the Energy and Commerce Committee ("DOE's Nuclear Weapons Complex: Challenges to Safety, Security, and Taxpayer Stewardship") will be a first step in better understanding some of the long-standing problems that have given rise to this and other fiascoes.[8]

Main Conclusions and Requests

For the reasons discussed further below, forcing NNSA to construct CMRR-NF at this time *over the national security objections of NNSA, DoD, and the uniformed military*[9] as the SASC has proposed, threatens, through fiscal shortfalls, NNSA Life Extension Program (LEP) deliverables, other infrastructure construction, and the continuity of knowledge and skill in the nuclear weapons complex. We know of no precedent for such action.

Although the authors of the *Bipartisan Commission on the Strategic Posture of the U.S.* strongly supported constructing CMRR and the Uranium Processing Facility (UPF), they also warned that pursuing them both at the same time under fiscal constraints would be risky and would threaten the intellectual infrastructure of the nuclear weapons complex.[10] By 2011, two years after their report, the estimated costs of *both* multi-billion-dollar facilities had approximately *doubled*. As discussed below, the cost of UPF may have now *tripled* since 2009, although nobody seems to want to talk about this.

We believe the House proposal to shift ownership and construction management of CMRR-NF and UPF to DoD is strongly ill-advised and we applaud the absence of any such provision in the Senate bill. The previous Army Corps of Engineers (USACE) attempt to construct a plutonium storage facility at LANL was an abject failure, in part because of poor construction management by USACE. The resulting building was never used for its intended purpose and was eventually bulldozed.[11]

---

some cuts could come from the costs of maintaining and modernizing the nuclear stockpile…" Walter Pincus, "Sen. Levin: Defense Dept. could cut budget now to avoid severe reductions next year," Washington Post, June 12, 2012. http://www.washingtonpost.com/world/national-security/sen-levin-defense-dept-could-cut-budget-now-to-avoid-severe-reductions-next-year/2012/06/12/gJQAMjrOYV_story.html.

[8] Scheduled for July 20, 2012 in the Subcommittee on Oversight and Investigations; see http://energycommerce.house.gov/hearings/hearingdetail.aspx?NewsID=9703.

[9] "'I agreed with that sequencing [which delays CMRR-NF],'" [General Robert] Kehler said in response to questions after a breakfast speech at the Reserve Officers Association." "STRATCOM chief backs modernization plan for complex despite concerns." Todd Jacobson, *Nuclear Weapons and Materials Monitor*, July 13, 2012, p. 6

[10] William Perry et. al., *America's Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States*, p. 63:

> "The NNSA needs the resources to perform its assigned missions. Although the NNSA decision to modernize in place is the right decision, *the budget risk appears extremely high.* The hope that consolidation would save money is unwarranted. Other important laboratory activities may pay a significant price. *To juggle all of its competing commitments the NNSA would have to reduce its base of scientific activity by 20-30 percent even in a flat budget and this would have a significant impact on the science and engineering base.* The NNSA does not know how large the core laboratory weapons programs need to be to maintain the deterrent." And: "Future infrastructure requirements must be assessed in light of the results of arms control negotiations now underway. Depending on progress in U.S.-Russian arms reductions, some downsizing may be possible."

At http://www.usip.org/strategic_posture/final.html.

[11] "But most of the blame lies with the U.S. Army Corps of Engineers, the U.S. Department of Energy and the operator of the national laboratory, the University of California." "LANL Storage Facility Falls Short of Purpose," Ian Hoffman, Albuquerque Journal, June 27, 1999,

It is important to understand that the CMRR-NF project is not a small additional fiscal stress, a straw which need not break the proverbial camel's back if carefully managed. Instead it is a massive, *irreducible*, *open-ended* commitment, the cost and management impacts of which *cannot be fully controlled under any realistic budget scenario – including the budget profile proffered by the Administration during the run-up to New START ratification*. As discussed briefly below, NNSA faces very significant management and program risks even without CMRR-NF.

We therefore suggest that the SASC:

- Support delay of CMRR-NF for at least five years, as requested by the Administration, in all further legislative deliberations this year.
- Require NNSA to gradually clarify, in detail and in open documents, redacted as necessary, its mission and facility requirements and priorities for plutonium sustainment, with associated costs, prioritizations, and alternatives, making special note of the sensitivity of these results to assumptions about the stockpile and strategies for its management, future alternative plans for heat-source plutonium, and other relevant factors and circumstances.
- Authorize funding for alternatives to CMRR-NF, including: for needed safety improvements at, and removal of excess plutonium from, LANL's PF-4 facility; for storage of plutonium at the Device Assembly Facility (DAF) at the Nevada National Security Site (NNSS); and for the use of existing, capable facilities at the Lawrence Livermore National Laboratory (LLNL) as needed.

  These existing LLNL facilities, which were not to be used for Hazard Category II plutonium operations under the previous plan, are larger and in some respects more capable than the laboratories NNSA was going to build in the CMRR-NF. These labs are in use and available today.
- Require NNSA to immediately publish the so-called "60-day study" prepared by the LANL M&O contractor LANS, redacted as necessary of course, and – which is more important – also to offer its own multi-site agency plan for public and congressional review.

Background

The plutonium sustainment plan announced by NNSA in February of this year involves deferring CMRR-NF for at least five years in favor of using existing facilities at LANL, LLNL, and NNSS. During this interim period of at least five years (i.e. until at least 2018), longer-term plutonium program and facility requirements will be studied and further plans developed, as appropriate.

This plan was developed "in close consultation with [NNSA's] national laboratories and national security sites,"[12] "in close coordination with DoD,"[13] and with the support of the Nuclear Weapons Council.[14] It is cursorily sketched in these documents:

---

http://epaper.abqjournal.com/Repository/ml.asp?Ref=QUpMLzE5OTkvMDYvMjcjQXIwODgwMA==&Mode=Html&Locale=english-skin, citing DOE Inspector General, "Inspection of Alleged Design and Construction Deficiencies in the Nuclear Materials Storage Facility at the Los Alamos National Laboratory," http://energy.gov/sites/prod/files/ins-9701.pdf.

[12] Testimony of Administrator D'Agostino before the House Appropriations Committee Subcommittee on Energy and Water Development, February 29, 2012, at http://nnsa.energy.gov/mediaroom/congressionaltestimony/fy13hewdstmt3612. See also

[13] NNSA, 2012, "Revised Plutonium Strategy – Supplemental Information for the President's FY 2013 Budget Request," http://www.lasg.org/CMRR/FY2013_CMRR_Rev_PU_strategy-supp.pdf .

1. NNSA Congressional Budget Request (CBR) (pdf), p. 8;
2. Office of Management and Budget (OMB), Cuts, Consolidation, and Savings (pdf), p. 26;
3. Revised Plutonium Strategy – Supplemental Information for the President's FY 2013 Budget Request (pdf); and
4. FY2013 Budget Guidance on the CMRR-NF – Memorandum from Donald Cook to Kevin Smith, Los Alamos Site Office, and Dr. Charles McMillan, Los Alamos National Laboratory (LANL), Feb 13, 2012 (pdf).[15]

Again on June 21 NNSA Administrator D'Agostino again testified to the close involvement of DoD and the Nuclear Weapons Council (NWC) in the "hard choices" NNSA is making about infrastructure, adding that "NNSA continues to work with our partners at the Department of Defense (DoD) to balance resources and requirements, and *that commitment [to balance] has not waivered despite many external pressures*."[16] (emphasis added)

As noted above, this plan has been favorably reviewed by STRATCOM and is fully supported by the NWC[17] as well as by agency testimony before congressional authorization and appropriation committees. In testimony before Congress, not one agency representative or laboratory director has testified that this non-CMRR-NF approach will not maintain the safety, security, and reliability of *all* U.S. nuclear forces.

The laboratory directors as well as General Kehler of STRATCOM have expressed some concerns about the future. The most specific concerns came from Dr. McMillan of LANL, who said the absence of CMRR-NF leaves the U.S. with "no known capability" [*nota bene*: not "no capability"] "to make 50 to 80 newly-produced pits "on the timescales planned for stockpile modernization. This will affect our path forward on the W78 LEP [Life Extension Program]."[18]

CMRR-NF would not, however, provide "known" capability either. The earliest CMRR-NF could be finished and operational was 2023, *assuming all went well from this point forward* (the project already has been delayed for more than a decade so far.). But things seldom *do* well with unique, never-

---

[14] Senator Alexander: "In other words, how are you going to do work in plutonium that they say need to be done -- or needs to be done to adequately secure the nation's defense?" Mr. D'Agostino: "OK, if I could start off with saying the Department of Defense and the Nuclear Weapons Council support the president's budget, support this program…" Response of NNSA Administrator D'Agostino to questions from Senator Alexander on March 21, 2012 in the Senate Appropriations Committee Subcommittee on Energy and Water Development. NWC support is documented in a decision memorandum for members of the Nuclear Weapons Council dated Mar 27, 2012, "Joint Department of Energy/National Nuclear Security Administration and Department of Defense Programmatic Realignments," archived at http://www.lasg.org/budget/NWC_post-FY13_budget_request.pdf.

[15] By now, the study (number 4 in the list above) requested by NNSA from LANS, the management and operating (M&O) contractor at LANL, has been prepared. It may be a (unreferenced) source for some of the statements in the SAASC *Report*. The *objectivity* of that study, given that LANS is the contractor for the $4-6 billion (B) CMRR-NF project, cannot be assumed. Neither is the degree to which other sites were involved in that study. Upon information and belief other M&O contractors were *not* involved. I do not know the degree to which the LANS analysis has been adopted by NNSA.

[16] Prepared testimony of Administrator D'Agostino before the Senate Foreign Relations Committee, June 21, 2012, at http://www.foreign.senate.gov/imo/media/doc/Thomas_DAgostino_Testimony.pdf.

[17] "Joint Department of Energy/National Nuclear Security Administration and Department of Defense Programmatic Realignments," Memorandum for members of the Nuclear Weapons Council, Mar 27, 2012 (pdf) from Frank Kendall, Undersecretary of Defense for Acquisition, Technology and Logistics (AT&L).

[18] Testimony of Charles McMillan before the SASC Subcommittee on Strategic Forces, April 18, 2012. http://armed-services.senate.gov/testimony.cfm?wit_id=10553&id=5292.

before-attempted, multi-billion-dollar nuclear facility construction, especially when several competing priorities are over budget in some cases by billions of dollars as will be discussed below.

Also, CMRR-NF could not function without the successful and timely completion of other large capital projects at LANL. This is not assured.[19]

Dr. McMillan is careful to say the absence of CMRR-NF will not ***preclude*** an effective W78 LEP. The size, pace, and nature of this LEP has not been decided and which may well involve neither new pits nor pit reuse.[20] Should the W87 primary be chosen as the basis for a new warhead to replace the W78 and W88 – a very unwise step in our view – a) the number of hedge warheads required, and b) the pace of the LEP, would both affect the required pit production capacity.

Dr. McMillan does *not* say that the absence of CMRR-NF would in any way prevent the U.S. from fielding, for the foreseeable future, as many fully-reliable ICBM warheads as are deployed today. Neither does Dr. McMillan say the absence of CMRR-NF will prevent the U.S. from producing new pits on a *different* schedule than currently "planned."

The current out-year "modernization" schedule alluded to by Dr. McMillan, including any pit production he assumed, is neither approved nor funded by Congress. No pit production for ***any*** warhead is currently either underway or required.[21] It is not clear that all "modernization" is an improvement from any perspective.

Dr. McMillan refers to a requirement to have the capacity to produce 50-80 new pits per year. ***There is no such static requirement.*** Necessary pit production capacity is currently under review.[22] More

---

[19] From a June 26, 2012 letter from the House Energy and Commerce Committee to GAO:

> "DOE's National Nuclear Security Administration (NNSA) has for a number of years planned to upgrade or replace both radioactive waste capabilities at LANL. Unfortunately, the associated projects to accomplish this have experienced problems with cost and schedule estimates. For example, a project to upgrade the 50-year-old RLWTF, which handles radioactive liquid waste including waste generated through the process of manufacturing nuclear weapons components, was started in 2007 to be completed in 2010 to meet mission requirements for the next 50 years. However, safety-related questions about design scope have stalled the project indefinitely. At the same time, plans to commence replacement for the 55-year-old TRU facilities began in 2007 to meet a deadline of December 2015. That project is already delayed until 2017, with a cost range 0[$71 million to $124 million and with additional potential taxpayer liabilities for delays related to environmental cleanup on the site of the existing facility.
>
> "Given these projects' progress to date, the Committee on Energy and Commerce is concerned about NNSA's and LANL's overall radioactive waste management strategy for the site. The importance of radioactive liquid and TRU waste capabilities to LANL's overall mission cannot be underestimated."

At http://republicans.energycommerce.house.gov/Media/file/Letters/112th/062612GAOLANL.pdf.

In addition to the two projects cited, LANL is attempting several other large projects in close geographic proximity, in a very crowded area, at the same time. For map and discussion see Mello, "Reasons Not to Build, or to Delay CMRR-NF," May 22, 2011, http://www.lasg.org/CMRR/Mello_Reasons_to_Delay_CMRR-NF_22May2011.pdf.

[20] "Fortunately, the concept of an untested IHE [insensitive high explosive] Mk5 RB [reentry body] or Mk12A RV [reentry vehicle] - whether a "common W78+W88 'Frankenslep' or not - is so ridiculous that the Navy and Air Force will have the sense to stop it even if NNSA or Congress will not." Dr. Roger Logan, former Directed Stockpile Work Leader at LLNL, email to author and others, July 2, 2012. While not the subject of this letter, we concur.

[21] "There are no planned activities to make WR [war reserve] quality pits for the stockpile, beyond completion of product inspection and acceptance of the additional W88 WR spare, Build 62." NNSA, "Pit Production Report, First Quarter, FY 2012," April 6, 2012, http://allthingsnuclear.org/post/25854236164/trackingpitproduction.

[22] From the House Armed Services Committee hearing of April 17, 2012, emphasis added:

Hon. Ms. Madelyn Creedon, Asst. Sec. of Defense:

broadly, Dr. McMillan's testimony assumes certain policy and funding decisions regarding stockpile maintenance strategies and schedules which have not been made, or which have been rescinded.

In contrast to the SASC, the House and Senate appropriations committees as well as the Administration's Budget Request are in basic agreement as regards plutonium sustainment and CMRR-NF, in that they would:

- Defer CMRR-NF for at least five years;
- Implement the alternative program described by the national security community as the best path at this time; and
- Study longer-term alternatives and requirements.

This deferral implies that the earliest possible operational date for CMRR-NF (or any comparably-scaled successor project) would be 2028, confirmed by NNSA Deputy Administrator Don Cook in response to a question from Senator Nelson on March 14, 2012.[23] *It is this long deferral of CMRR-NF*

> "We need a capability to support the production of pits. Exactly how many -- how many we need in the future, what is the future pit requirement, how big CMRR has to be, how much plutonium it has to hold, those are all decisions that may in fact change at the completion of the UPF when we once again resume consideration of the funding and the design of the CMRR."

Hon. Thomas D'Agostino, Administrator, NNSA:

> "But from my standpoint, we are working very closely with the Defense Department to examine multiple options, whether it's a -- I don't obviously get classified here, but whether we proceed forward using W-76 pits, W-68 pits or any of the other wide number of pits that we have.
>
> "And the good news by all of this, frankly, is there are a number of options, a number of different paths that we can proceed. We are not hampered by saying the nation has to have a capability right now to make 50 or 80 pits per year in order to take care of the stockpile. That's great news for the country because we are not forced into making rash decisions on significant investments in a very short period of time. So we have time to evaluate this area.
>
> "And just recently, General Kehler has been working on studies that he needs to have -- he's going to bring to the Nuclear Weapons Council -- we're going to be getting together a Nuclear Weapons Council in the next few months to agree on a path forward on how to move forward in the pit area, but we have to start first with the life extension approach, make sure it informs what kinds of pits we can use, then go check the pits at Pantex, and continue to do the aging studies on the plutonium itself."

[23] Dr. Cook:

> "With regard to CMRR now, a piece that's already done is the radiological lab, as mentioned already. We will substantially complete the engineering design for CMRR in 2012 and we will tie that up with a cost estimate for that design when we then defer construction. But it's a rational point. And without that deferral on CMRR we could not do both the B61 and the Uranium Processing Facility. So it was a conscious choice.
>
> "With regard to now the pit numbers, it's a fact that what we're doing with the W76 life extension, known as the 76–1, and what we intend to do with the B61–12 is pit reuse. There are three different approaches here. They're certainly written in our program plans. One is pit reuse, one is pit refurbishment, and one is manufacturing newly manufactured pits, but of existing design. No new military requirements or characteristics that are essential.
>
> "So to get to the end of the answer, we do believe that we can continue conducting a very aggressive modernization program for life extension programs by using all three of those. But the real impact of the decision to defer CMRR by five years means that it will not be operational by, the correct number was 2023, as we laid out in the last set of reports last year. That will now not be sooner than 2028."

capabilities which has been endorsed after careful study by the members of the NWC as the most responsible path for the nation.

NNSA faces significant fiscal risks. One such risk is cost escalation at UPF. In 2010 NNSA asked the USACE and two consulting firms to independently estimate the cost of UPF. In February 2011 the USACE provided its estimate: between $6.5 and $7.5 billion (B), well above the NNSA's estimate of $4.2 to $6.5 B that was provided in its November, 2010 "Section 1251" Report and still the agency's most recent cost estimate for UPF.

Higher UPF costs, should they materialize, will require higher annual spending on UPF than that shown in the 1251 Report, which peaked at $500 million (M) per year. Last month UPF project director John Eschenberg said annual UPF spending is now expected to peak at $750 M, $250 M more than before, "which is going to tax the system."[24] No kidding.

In June of this year, two experts close to the issue in government told me they are now sure UPF will cost more than $10 B, which could raise annual funding requirements significantly above $1 B in some years unless accompanied by schedule slippage.

In its report, the USACE wrote:

> Significant cost growth of either project [UPF and CMRR-NF] may result in a situation where constructing both projects with currently anticipated scopes is not feasible due to NNSA funding constraints. Significant delays to reaching full production capacity, construction phasing, or reduced functional capabilities may result if UPF is considered a lower priority than CMRR.[25]

In sum, if UPF is to be completed anywhere near its schedule, the funds previously thought necessary for CMRR-NF must be reserved for UPF during this decade.

Another major uncertainty is NNSA's excess pension fund costs, which are likely to fall anywhere between $0.5 B to *more than $3 B per year* during the middle years of this decade – more or less the same years UPF construction costs will peak – according to NNSA.[26]

Other program cost overruns, both current and expected, could be cited.

Under these circumstances, addition of a $300-600 M/yr spending requirement for CMRR-NF[27] would truly "break the bank." Management risk to all of NNSA's programs would be markedly higher – especially, to UPF.

There is no indication that the CMRR-NF annual spending increment would end with construction. Unlike UPF, the construction of which is expected to eventually save money (although possibly not until circa 2030), CMRR-NF is expected (by LANL) to have markedly increased maintenance and

[24] Todd Jacobson, "NNSA'S UPF Project Director Details Contracting Plans for Project," *Nuclear Weapons and Materials Monitor*, June 8, 2012.

[25] Todd Jacobson, "The Uranium Processing Facility planned for the Y-12 National Security Complex is likely to cost more than even the steepest currently available projections, according to an independent cost estimate on the project completed by the Army Corps of Engineers earlier this year," *Nuclear Weapons and Materials Monitor*, July 1, 2011.

[26] Robert Nassif, Deputy Associate Administrator for Financial Management, NNSA, "Maintaining Modernization Within a Constrained Budget: FY 2013 Budget Request," February 16, 2012 presentation at the *Nuclear Weapons and Materials Monitor* "Deterrence Summit," slide 13.

[27] From Section 1251 Report, November 2010. These costs could be too low.

operating expenses over the present situation at LANL.[28] NNSA has not released capital and annual costs for the plan that would delay CMRR-NF.

Looking at the big picture, the huge, open-ended growth in NNSA funding that would be necessary to construct CMRR-NF and UPF at the same time, while also completing the planned LEPs on schedule and *also* meeting NNSA's pension obligations with reasonable confidence, a growth rate which would far exceed that planned in 2010, is highly unrealistic. Even if additional billions of dollars were available, such grandiose goals very likely would be impossible to simultaneously achieve for other management reasons that lie beyond the scope of this letter.

On top of these fiscal risks are the *additional* risks associated with the Budget Control Act (BCA). It is not just the BCA's sequester provisions that are the problem, as many might think, but rather the weak economic and fiscal condition of the United States, of which the sequester provision is a current political expression.

Factual and logical problems in the S. 2467 *Report* concerning CMRR-NF

Sections of the SASC *Report* on S.2467 follow in indented style, beginning on pp. 281-282 of the *Report* and continuing on pp. 286-288. Our comments after each indented passage are not indented. Each set of comments ends with a row of asterisks.

> With the proposed cancellation of the Chemistry and Metallurgy Research Replacement (CMRR) building, the NNSA has proposed an alternative plutonium strategy. This alternative strategy concerns the committee.
>
> A good rule of thumb with plutonium is that its operations are centralized in one place.

This "rule of thumb" is incorrect. The U.S. has never had full centralization of plutonium operations, doesn't have it today, and has never planned to have it. NNSA has long planned to build additional plutonium facilities at *two* far-separated sites (LANL and the Savannah River Site, SRS) while maintaining various plutonium storage, processing, and laboratory facilities at *six (6) different locations* – regardless of whether CMRR-NF were built or not.

---

[28] "The CMRR maintenance budget is projected at approximately 2.5% of RPV [Replacement Plant Value] to sustain its condition. One of the challenges for the Laboratory and NNSA is to provide the funds necessary to meet this new maintenance funding demand. (LANL, "Ten-Year Site Plan, FY2008-FY20017," LA-CP-07-0039, January 9, 2007, pp. 114-115. Study Group files, Freedom of Information Act request.) In FY07, total LANL maintenance spending was $88 M, of which $6 M was for the existing CMR building. (Ibid.) At $3.7 to 5.8 billion RPV, the CMRR-NF annual maintenance bill works out to be $93 to $145 million, more than a factor of ten larger. CMRR-NF operating costs, vs. CMR operating costs, are not quantified here but the difference will again be very large, on top of the increase in maintenance spending. For example, CMRR-NF will use so much electricity that the existing transmission lines to Los Alamos will need to be augmented with another line or else re-conductored to increase capacity. (NNSA, *CMRR-NF Supplemental Environmental Impact Statement*, http://energy.gov/nepa/downloads/eis-0350-s1-final-supplemental-environmental-impact-statement). A June 21, 2010 GAO report found that NNSA could not accurately quantify the costs of operating and maintaining its nuclear weapons facilities. GAO, "Nuclear Weapons, Actions Needed to Identify Total Costs of Weapons Complex Infrastructure and Research and Production Capabilities, GAO-10-582, www.gao.gov/new.items/d10582.pdf. The Comptroller General subsequently wrote DOE, saying that as a result, "NNSA lacks the management information necessary to make cost-benefit decisions on infrastructure investment." Letter from Gene Dodaro, Comptroller General, to Deputy DOE Secretary Dan Poneman, July 6, 2010. Study Group files. It appears CMRR-NF will increase LANL's operations and maintenance costs by at least $200 million per year and quite likely much more than that. Quantification of life-cycle costs is a requirement of DOE Order 430.1B, "Real Property and Asset Management." https://www.directives.doe.gov/directives/current-directives/430.1-BOrder-bc2/view. No such quantification is publicly available. For more see http://www.lasg.org/CMRR/Mello_Reasons_to_Delay_CMRR-NF_22May2011.pdf.

Regardless of CMRR-NF, NNSA would maintain or build plutonium facilities at LLNL (at Superblock, with lowered inventory but still operated), NNSS (at U1a, not counting the critical assemblies at the Device Assembly Facility, DAF), at LANL (at Building PF-4 and CMR, with the latter now almost closed *independent* of the status of CMRR-NF), Pantex (at Zone 4 and Zone 12, for pit storage and re-qualification), at the Idaho National Laboratory (INL), and at SRS (at K Area, the Mixed Oxide Fuel Fabrication Facility or MFFF, and at H Canyon).[29]

******

> The committee's understanding is that the NNSA will de-inventory the Plutonium Facility (PF)–4 building at Los Alamos where plutonium operations occur and store the plutonium at the Device Assembly Facility (DAF) at the Nevada National Security Site, which is 663 miles and more than 10 hours away from the PF–4.

This is incorrect. The sentence should read "*partially* de-inventory", where the plutonium to be removed is not needed for operations and so is put into less expensive, safer long-term storage in existing facilities elsewhere. There is no programmatic need to store several tons of plutonium at LANL – especially when suitable facilities already exist elsewhere. The distance – one day's drive – is irrelevant.[30]

According to the Governmental Accountability Office (GAO), CMRR-NF as designed was not going to have large day vaults that would have significantly increased the day-to-day operational storage of plutonium at TA-55 in any case.[31]

Marginal costs for the occasional shipment to LANL from elsewhere are modest: the entire nationwide budget request for the Office of Secure Transportation for FY2013 is just $219 million.

There are no significant safety or security problems associated with this arrangement. There is no public record of any safety or security problems with plutonium shipments by truck in general.

******

> The committee understands that DAF needs upgrades to its safety systems for a material that is inherently exothermic in air.

This is unnecessary alarmist and misleading. Certainly, it is important to know what these upgrades are, but conversations we have had with Steve Younger, at the time President of National Security Technologies (NSTec) at NNSS, have implied the needed upgrades would be quite modest.

---

[29] See also "The United States Plutonium Balance, 1944-2009, Jun 26, 2012," (pdf); update of Plutonium: The First 50 Years, Feb 1996 (pdf).

[30] In 2009 LANL guarded 4.0 metric tons of weapons-grade plutonium (WgPu), of which 1.2 MT is excess to NNSA's needs. "The United States Plutonium Balance, 1944-2009", June 26, 2012. p. 14.

[31] "Los Alamos officials told us that Los Alamos may not have enough storage space even after the CMRR is complete. NNSA plans to first use the newly available vault space in the CMRR for short-term, daily storage of nuclear materials being used for programmatic work and then use any remaining space for long-term storage. NNSA designed the CMRR without much long-term vault storage because these materials were initially planned to be shipped offsite for disposal." GAO, "Modernizing the Nuclear Security Enterprise: New Plutonium Research Facility at Los Alamos May Not Meet All Mission Needs," GAO-12-337, March 2012, p. 21, www.gao.gov/products/GAO-12-337.

PF-4 on the other hand needs major upgrades to its seismically-qualified ventilation system and other seismic upgrades – upgrades that are collectively far more significant and expensive than any at DAF. Without those upgrades, which are now much more affordable and practical without the expense, physical congestion, and managerial competition of the CMRR-NF project, CMRR-NF could not be functional in any case.

At Pantex's Zone 4 and at K Area at SRS, NNSA credits the impressive, thick containers used for long-term plutonium storage with fire resistance. These containers are routinely moved on pallets with forklifts, and they are vertically stacked. These practices apparently present no special problems if appropriate precautions are taken (e.g. electric fork lift tines are dulled). There is no reason the DAF could not be used for long-term Pu storage at very modest cost.

The cost of providing long-term plutonium storage at CMRR-NF, by contrast, is enormous, as Congress has seen.

******

> The committee understands that plutonium testing and operations at Lawrence Livermore National Laboratory will be reinstated—after the NNSA has told Congress they have saved money by lowering the security posture there and told the local communities that they have de-inventoried the laboratory of plutonium.

This appears to be a cost consideration only, amenable to analysis and comparison. No such cost analysis has been offered.

******

> …and questions what, if anything, increasing the quantity at RLOUB for analytical chemistry purposes gives towards helping the process flow issues inside PF–4 at Los Alamos where large quantities (kilograms) of plutonium are handled.

This information is misleading or erroneous. The analytical chemistry (AC) and metallurgical characterization (MC) analyses needed to support pit production involve small samples, as GAO has written.[32] This increase in Material at Risk (MAR) at RLUOB would allow NNSA to conduct a significant metallurgical characterization mission at RLUOB, as NNSA testified in Congress.

******

> There is a large excavation next to PF–4 where the CMRR Nuclear Facility (CMRR–NF) was to be built, the committee would like to know how the NNSA plans to maintain such a large excavation next to PF–4 when it plans to defer CMRR–NF ''for at least 5 years''.

This information is wholly erroneous. There is a flat unpaved parking lot and laydown area which is at or near the elevation of Pajarito Road, with a 25-30 ft. sloping headwall on the north side cut into a cliff-forming unit of Bandelier Tuff, and a tapered, graded sidewall on the east and west sides. Either the headwall needs no stabilization at all (the most likely case) or if desired it could be inexpensively and fully stabilized with rock bolts, wire netting, and gunite.

[32] See GAO, "Nuclear Weapons: NNSA Needs to Establish a Cost and Schedule Baseline for Manufacturing a Critical Nuclear Weapon Component," GAO-08-0593, May 2008, p. 20, http://www.gao.gov/new.items/d08593.pdf. Please see also the April 27, 2011 court testimony of Dr. Frank von Hippel at http://www.lasg.org/CMRR/Litigation/vonHippel_27Apr2011.pdf.

The attached aerial photograph of March 13, 2012, shows TA-55 as seen from the north: there is no large excavation.

******

> Finally there is the issue of a tunnel connecting PF–4 to RLOUB, which must go past the large excavation for the CMRR–NF to help expedite the flow of small samples.

This information is erroneous. This tunnel doesn't and needn't exist. There is a tunnel stub running west from RLUOB, which is buried. No tunnel "must" be built. The routine transport of radiological quantities of plutonium at LANL has never required tunnels.

******

> This tunnel is larger than that from CMRR–NF to PF–4.

This information is erroneous. Again, there is no tunnel from CMRR-NF to PF-4. CMRR-NF does not exist.

******

> The committee's understanding is the deferral of CMRR–NF will lead to in some cases a loss of materials characterization and materials compatibility tests for larger test samples of plutonium that cannot be duplicated elsewhere.

The capabilities of PF-4 and other plutonium facilities and the plutonium mission requirements need to be reassessed before the verity of this claim can be properly established. I don't believe it.[33]

******

> Some of these capabilities, such as crystal growth, may be impossible to recreate elsewhere.

It is not clear that "crystal growth" is necessary, that it cannot be done in PF-4, or that there was to be laboratory space allocated in CMRR-NF – space which NNSA has most recently estimated will cost $150,000 per square foot to eventually provide.

******

> Once it learned of the proposed cancellation, the committee asked the Department of Defense (DOD) if the requirement for 50–80 pits a year was still valid and was told it was.

This information is misleading at best. It is negated by the testimony of Asst. Sec. Defense Creedon and NNSA Administrator D'Agostino on April 17, 2012, quoted in footnote 22 above. This was not new information at the time; in the early days of this year I was told by multiple knowledgeable parties

[33] Rationalization of programs, floor space, vault space, and equipment within the existing plutonium facility (Building PF-4) will provide adequate MC capability if it does not already do so. Frank von Hippel prepared testimony of April 27, 2011, http://www.lasg.org/CMRR/Litigation/vonHippel_27Apr2011.pdf. Mello affidavit of January 14, 2011, op. cit., at paragraph 10, citing Tim George, LANL Nuclear Materials Technology Division Director, "Can Los Alamos Meet Its Future Nuclear Challenges? Balancing the Need to Expand Capabilities While Reducing Capacity," *Actinide Research Quarterly,* 1st Quarter 2001, at http://arq.lanl.gov/source/orgs/nmt/nmtdo/AQarchive/01spring/editorial.html, and Secretary of Energy Advisory Board (SEAB) Nuclear Weapons Complex Infrastructure Task Force, "Recommendations for the Nuclear Weapons Complex of the Future," July 13, 2005, p. H-6, at footnote 11 in http://www.lasg.org/CMRR/Litigation/Mello_aff3_ref/Mello_Aff3_All_References.pdf. See also the discussion in the von Hippel testimony, op. cit. http://www.lasg.org/CMRR/Litigation/vonHippel_27Apr2011.pdf.

in government that this legacy requirement was created by the (congressionally-rejected) "need" to manufacture the Reliable Replacement Warhead (RRW). There is no production requirement for new pits today.

******

> How will transporting plutonium across the U.S. to different NNSA facilities be any more safe and secure and cost less than CMRR–NF adjacent to PF–4?

Why shouldn't it be cheaper? Not only will CMRR-NF be very expensive to build – and please bear in mind that the CMRR-NF cost, as stated, does not include other necessary ancillary infrastructure, such a significantly larger electrical supply for Los Alamos County – and it will be very expensive to operate.

******

> The committee also understands that without CMRR–NF, no plan exists for meeting the DOD requirements.

This is casuistic. There are no DoD requirements at the present time. Even supposing there were such, why then do DoD and the NWC support the alternative, non-CMRR-NF plan?

******

> The committee finds that the alternative plutonium strategy could cost upwards of $1.0 billion to delay the CMRR–NF by ‘‘at least 5 years’’ resulting if built, a 25–30 percent increase in the CMRR–NF cost or about another $2.0 billion.

These figures are not credible. The bases for them are nowhere supplied and they are not credible for this reason alone. The additional maintenance and operating (M&O) costs of CMRR-NF will quickly mount up, to the tune of circa $300 M per year once the facility is built. A 5-year delay in CMRR-NF would save in excess of $1 billion in discounted M&O costs, not counting the savings that would accrue from not delaying UPF.

I also suspect the *Report*'s analysis does not include an even-handed, apples-to-apples analysis of cost escalation. Neither NNSA nor the Senate have any way to "lock in" costs and prevent escalation if CMRR-NF were to begin construction ***now***.

Furthermore, neither the mission requirements, nor the design concept, nor the scale of CMRR-NF are now known. The expenditure of more than $500 M on the project has not succeeded in defining these matters.

******

> Unknown is the cost to re-start the CMRR–NF project or how the regulatory structure 5 or more years from now will have changed.

This statement is illogical. If the regulatory structure changes in a way that will increase costs of a facility that is ***not*** yet under construction, such changes would be far ***more*** adverse to a facility that ***is*** already designed and under construction.

******

> The net result of this deferral is a cost escalation of some $3.0 billion to the taxpayer with even more uncertainty on the Nation’s plutonium strategy much less ensuring Los Alamos can retain the unique expertise and scientists it has had since the Manhattan Project to handle this vital national mission. If CMRR–NF is not built, the alternative

> plutonium strategy will simply shift increased pit costs from not using a single facility into future life extension programs in the out years.

These statements are not anchored in facts, and some of the logic is circular. What is the source of this "$3 billion," which is at complete variance to agency testimony but lacks any justification? And why would the lack of CMRR-NF increase the costs for future LEPs? There is no reason it would. Future LEPs may not involve pit production; indeed this is, and for the soundest of reasons, the default policy.[34]

A $6 billion CMRR-NF – in round numbers, NNSA's higher and more reasonable estimate – is equivalent, in constant dollars, to ***all*** the costs of the Manhattan Project at LANL plus ***all*** the costs of constructing ***all*** the facilities at LANL and operating them until 1957, ***including*** design and development of a deployable hydrogen bomb, and ***including*** design, testing, and production of the three deployed weapons of World War II, two of which were used. A $6 billion CMRR-NF is equivalent, in constant dollars, to five (5) times the costs of the Manhattan Project at Los Alamos. The pursuit of such a grandiose CMRR-NF has so far prevented, not fostered, a reasonable, right-sized, plutonium strategy.

******

> Given the magnitude of the consequences of the alternative plutonium proposal by the NNSA, the committee directs the Government Accountability Office, on an expedited basis, to review the NNSA's proposed plutonium strategy to determine relative to the CMRR–NF whether (1) it is safer than if CMRR–NF were started on its original schedule and if not, what are the added risks to public health and safety, (2) what is the added cost in addition to the deferral of CMRR–NF, especially to future life extension programs, (3) what burden will be placed on PF–4 in terms of process flow and ability to meet the DOD requirement (as compared to starting CMRR–NF on its original schedule), (4) what is the estimated cost and time of building an entirely new facility accomplishing both the functions of CMRR–NF and PF–4 at the least costly location in the NNSA complex, and (5) what would be the impact on the plutonium science mission at Los Alamos. The committee requests this study no later than January 31, 2013.

Some of these requirements assume circumstances which do not exist, namely: a) none of the original schedules can now be met; b) CMRR-NF cannot be assumed to provide greater safety, given that CMR is being retired in any case; the "added cost" for deferring CMRR-NF is actually a savings, not a cost, as NNSA has testified; the "added cost" to future LEPs assumes pit replacement, when no such replacement has been approved.

There are other problems with this requirement. GAO lacks the capability to analyze most of these matters, which would require a large staff (i.e. dozens) of dedicated and experienced plutonium mission specialists. How can GAO produce an accurate cost for a new, even larger facility in short order when LANS and NNSA have not been able to produce a reliable cost estimate for CMRR-NF (or any other project) over the past decade? This requirement will force GAO to go, directly or indirectly,

[34]Department of Defense, "Nuclear Posture Review," April 2010. " Replacement of nuclear components would be undertaken only if critical Stockpile Management Program goals could not otherwise be met, and if specifically authorized by the President and approved by Congress." p. xiv, http://www.defense.gov/npr/.

to the interest-conflicted M&O contractor, the one with an atrocious track record on this project, LANS, for analysis.

Furthermore, the role of GAO as auditor would be fatally compromised. GAO cannot and should not take over NNSA's essential functions.

******

At pp. 286-288:

> The committee recommends a provision that would direct the Secretary of Energy and the Administrator of the National Nuclear Security Administration (NNSA) to construct a building to replace the functions of the existing Chemistry and Metallurgy Research building at Los Alamos National Laboratory associated with Department of Energy (DOE) Hazard Category 2 special nuclear material operations.

Is there any precedent forcing an agency or agencies to construct an enormous facility they have said they do not want right now, the construction of which could threaten success in their other projects and capabilities, all of which they judge to be of higher priority than this one, and have so testified?

******

> The committee is strongly concerned with the budget proposal to defer ''by at least 5 years'' the replacement project for the Chemistry and Metallurgy Research Replacement Nuclear Facility (CMRR–NF) building at Los Alamos National Laboratory, New Mexico. A deferral ''for at least 5 years'' appears to be a cancellation. Based on the analysis the committee has received to date, it appears that such a cancellation would have an adverse impact on nuclear modernization programs.

"Modernization" has yet to be defined in this instance, and some aspects of "modernization" are decidedly ***not*** national policy, such as manufacture of new pits, which the most recent Nuclear Posture Review stigmatizes in comparison to strategies of refurbishment and reuse. Not all modernization is an improvement, is policy, would be cost-effective, or would be wise.

******

> The 2009 report ''America's Strategic Posture'', chaired by former Secretaries of Defense, William Perry and James Schlesinger, recognized the significance of the CMRR project not because it was tied to a military number of pits but because it ''makes a direct contribution to the intellectual infrastructure that is in immediate danger of attrition''.

As noted above, these authors (at p. 63) carefully hedge this recommendation, noting that if a huge infusion of money is not available, these big construction projects threaten the intellectual capital of the weapons complex – as indeed they do.

A decade-long construction project to produce a huge building consisting of only 10% net usable space contributes nothing to the "intellectual infrastructure" of LANL. The private views of many LANL scientists, as they have expressed those views to us, are quite the opposite.

******

> They wisely noted that ''because the future size of the stockpile is uncertain, projects that are independent of the stockpile size should take priority. The uranium production

> facility's (building 9212 at Y–12) size is influenced by stockpile size . . . . The Los Alamos plutonium facility is required independent of stockpile size.''

Although the *Report* quotes correctly this view is incorrect. The "need" for CMRR-NF is highly dependent on stockpile size, composition, and maintenance strategy, as well as on other decisions, e.g. concerning nonproliferation programs. Please see the remarks of Assistant Secretary Creedon at footnote 22.

******

> They go further stating that, "These considerations lead the commission to the conclusion that, if priority must be given, the Los Alamos plutonium facility should receive it.'' The point is that while today we are focused on CMRR–NF because the Department of Defense (DOD) states it has a pit need in the range of 50–80 by 2025, the fundamental reason CMRR–NF is needed is to maintain our Nation's ability to conduct continuous research with kilogram quantities of plutonium.

The statement regarding a pit production capacity requirement of 50-80 pits/year is erroneous.

According to the JASONs, the nation does not need a broad research program into the properties of plutonium.[35]

******

> A DOE Hazard Category 2 facility, such as CMRR–NF, was planned to be necessary to make a wide range of bulk mechanical measurements on pit behavior to ensure that even as pit aging occurs, we can be sure that the stockpile will continue to be safe, secure, and militarily effective.

Initially, the CMRR project did not include a Hazard Category 2 facility (see footnote 4). In any case, PF-4 has the capability and space to make the necessary measurements and it does so already, as does Superblock.

******

> In a February 2, 2011, message from the President to the Senate on the New START Treaty, the President stated that he intends to ''(a) accelerate to the extent possible, the design and engineering phase of the Chemistry and Metallurgy Research Replacement (CMRR) building and the Uranium Processing Facility (UPF); and (b) request full funding, including on a multi-year basis as appropriate, for the CMRR building and the UPF upon completion of the design and engineering phase for such facilities.'' The committee believes that the linkage between nuclear modernization and the New START Treaty's implementation is clearly established.

This link is clearly established as a political bargain. The linkage is political, not technical or managerial. It has been overtaken by political events, chiefly the more modest increases in NNSA budgets which are now available.

******

[35] Please see JASON, 1994, "Science-Based Stockpile Stewardship," p. 85: "Having an open research program on the physics and metallurgy of uranium and plutonium is highly undesirable from the perspective of nuclear proliferation. Consequently, we see the SNM manufacturing component of the stewardship program as a narrowly defined, sharply focused engineering and manufacturing curatorship program." At http://www.fas.org/irp/agency/dod/jason/sbss.pdf.

In 2010, the Department of Defense and the Department of Energy signed a Memorandum of Agreement (MOA) concerning modernization of the U.S. nuclear infrastructure. In this MOA, DOD agreed to work with the Office of Management and Budget to transfer budget authority for NNSA's nuclear weapons and Naval Reactor programs. DOE agreed to use this transferred budget authority to supplement NNSA funding for among other things completing the design and beginning construction of the CMRR–NF facility at Los Alamos National Laboratory. The committee understands that DOD is providing the resources agreed to under the MOA and commends DOD for its commitment to the modernization of the nuclear weapons complex. The committee is disappointed in DOE's failure to comply with its previously agreed to obligations, and directs NNSA to provide the committee by September 30, 2012, a full accounting of the budget authority DOD is giving to DOE and a detailed description at the account level of the NNSA programs directly impacted through the transfer of DOD's budget authority.

Why not accept DoD's word, then, that this facility is not wanted or needed right now?

******

The committee authorizes $150.0 million of the amounts appropriated in fiscal year 2013 for the construction of the CMRR–NF facility and prohibits NNSA from reducing amounts authorized and appropriated for directed stockpile work, naval reactors, or Facility Project 06–D–141, Project Engineering & Design, Uranium Processing Facility, Y–12 National Security Complex, Oak Ridge, Tennessee, for this purpose.

The committee expresses concern with the overall projected cost of the CMRR–NF facility and therefore directs that the facility meet the requirements identified in the April 2010 MOA regarding capabilities but that funding for the facility shall not exceed $3.7 billion.

The SASC cannot legislate construction costs. That is magical thinking.

******

The practicability of implementing the design and construction of the facility shall focus on the costs and benefits as well as technical and economic feasibility of every major design characteristic that drives cost. The committee stresses the importance of the affordability of CMRR and strongly believes that a $3.7 billion cost ceiling is sufficient. The committee notes that One World Trade Center in New York City, which when complete will be the tallest building in the Western Hemisphere, is estimated to cost $3.9 billion. The committee believes both CMRR–NF and the UPF at Y–12 can be built affordably and directs the administration to achieve the cost savings necessary, so that the cost of CMRR–NF does not exceed the statutorily imposed cost ceiling. The committee is disappointed in the lack of transparency displayed by NNSA in its fiscal year 2013 budget deliberation process. It is evident that the level of rigor and due diligence necessary for a proposal as significant as the proposed deferral of CMRR–NF did not take place between NNSA and the national security laboratories, NNSA and the Department of Defense, and NNSA and Congress.

That lack of "due diligence" was evident beginning in 2001. Eventually, it led to the recent volte-face, which occurred when more diligence was applied. As John Harvey, Principal Deputy Assistant

Secretary of Defense for Nuclear, Chemical and Biological Defense Programs said, "When you are forced into a situation you have to get smart and if we get smart we may be able to do some things that would enable us to get higher capability from existing facilities."[36]

The Senate cannot legislate a cost cap.

******

> Not until after the budget was released did NNSA seek input from the national laboratories on the cost and practicality of employing a new plutonium strategy.

There has been no congressional testimony from anyone, including the lab directors, appearing before the strategic forces subcommittees in both houses, stating that NNSA's proposed alternative to CMRR-NF, together with the rest of the proposed program, would not maintain the nuclear stockpile safely, securely, and reliably *in a cost-effective manner*.

******

> Furthermore, in testimony before the Senate Committee on Armed Services, General Robert Kehler, the Commander of U.S. Strategic Command testified that NNSA's fiscal year 2013 budget concerned him. According to General Kehler's testimony, ''the thing that concerns me the most is our continued investment in the weapons complex. And so the issue with CMRR–NF does concern me.''

Concern, yes. We are all *concerned*. But did he advocate building CMRR-NF? No. He supports the delay and has testified that he fully supports the President's Budget Request.[37]

******

These conclude our remarks on this topic. We have some further concerns about Weapons Activities and the NNSA in S. 2467 and will take these up on another occasion.

Thank you for your diligent work,

Greg Mello, for the Los Alamos Study Group

[36] Todd Jacobson, "Despite CMRR-NF Setback, NNSA To Meet Pit Goals Through Variety," *Nuclear Weapons & Materials Monitor*, February 24, 2012. Please also see the (contested) "Lab Directors Urged Plutonium Facility Delay: Former White House Aide," Elaine Grossman, *Global Security Newswire*, Jun 5, 2012. http://www.nti.org/gsn/article/lab-directors-urged-plutonium-facility-delay-ex-white-house-aide/.

[37] "Gen. Robert Kehler, the head of U.S. Strategic Command, this week continued to back the Obama Administration's plan to defer construction of the Chemistry and Metallurgy Research Replacement-Nuclear Facility while expressing concern about the nation's future efforts to modernize the weapons complex." See Todd Jacobson, "STRATCOM Chief Backs Modernization Plan for Complex Despite Concerns," *Nuclear Weapons & Materials Monitor*, July 13, 2012.

Aerial Photo of TA-55 at LANL, March 2012, showing the absence of any large excavation at the CMRR-NF Site

(Los Alamos Study Group)

NNSA Pension Fund Obligations, NNSA-Estimated Best and Worst Cases, Deputy Administrator Robert Nassif, NNSA (*Nuclear Weapons and Materials Monitor* Conference Presentation, February 2012, slide 13).

(Formatting difficulties in original. Left axis units are $500 M)