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Dear Ms. Withers:

**Nuclear Watch New Mexico** hereby submits these additional comments to the National Nuclear Security Administration (NNSA) on the Final “Site-Wide Environmental Impact Statement for Continued Operation of the Los Alamos National Laboratory” (hereinafter “Final SWEIS” or FSWEIS). We submit these additional comments in light of new developments since the draft SWEIS was issued, such as:

- The alternatives proposed in the NNSA’s draft “Complex Transformation Supplemental Programmatic Environmental Impact Statement” (SPEIS), and their impact on future plutonium pit production at LANL.
- A new GAO report that indicates only a very limited programmatic need for pit production.
- The fact that future national security requirements, which LANL is required to support, are quite likely to change given Congress’ recently enacted requirement for a new Nuclear Posture Review (NPR).

### **On-Line Accessibility of Reference Documents**

First, we commend NNSA for finally making the FSWEIS’ reference documents available online (which should have been done for the draft). However, the indexing provided to navigate to the individual documents does not correspond to the way the footnotes are written, thereby making it a convoluted process to find the particular referenced document in the index. Once the title and document number are found in the provided index, the correspondingly-numbered document must be found manually in the list of links to the documents.

**Consistency between the footnoted references and the online navigation as well as direct hyperlinking between the index and the individual documents will contribute to a more user-friendly online resource for researchers and commenters.**

To this end, NukeWatch developed an online, user-friendly, hyperlinked index to the draft SWEIS reference documents in the Fall of 2006. It was accessed over 10,000 times before we took it offline this Spring.

**If we can do it, why can’t the NNSA Los Alamos Site Office (LASO)?**

Should LASO need assistance, we’d be happy to provide it with a version of the index we developed that uses relative pathnames and our reference library. We also note that NNSA HQ did a good job indexing and posting online the reference documents for the draft Complex Transformation Supplemental Programmatic Environmental Impact Statement. Surely LASO could better emulate either our example or NNSA HQ’s example.

## Expanded Plutonium Pit Production Is Simply Not Necessary

The preparation of the final SWEIS was nearly a two-year process, as NNSA had notified the public of the availability of the draft SWEIS in July 2006. The draft's preferred alternative for continuing operations at the Los Alamos National Laboratory (LANL) is to expand the Lab's nuclear weapons operations, in particular raising the level of plutonium pit production from 20 pits per year to 50 pits certified for deployed nuclear weapons, or 80 total pits per year in the event of production rejects. Since NNSA released the draft LANL SWEIS in 2006 the agency subsequently proposed an ambitious plan for "Complex Transformation" of its entire nuclear weapons complex.<sup>1</sup> As a result, the agency's draft *Complex Transformation Supplemental Programmatic Environmental Impact Statement* (CT SPEIS) states:

NNSA will not make any new decisions specifically related to pit production at LANL prior to the completion of this SPEIS. In the interim, pit production at LANL will continue within the existing capacity of nominally 20 pits per year, as announced in the ROD for the 1999 LANL SWEIS (64 FR 50797, September 20, 1999). After completing this SPEIS, if NNSA makes a programmatic decision to increase pit production at Los Alamos, then NNSA would amend the LANL SWEIS ROD, as appropriate. In addition, if the programmatic decision is to increase pit production at Los Alamos above the level analyzed in the LANL SWEIS, or if the increased production would rely upon modification of existing facilities or new construction not analyzed in the LANL SWEIS, then NNSA would evaluate the need to prepare additional site-specific NEPA analysis prior to issuing an Amended ROD. *Complex Transformation SPEIS*, p. 1-17.

In a similar vein, the final LANL SWEIS states:

The Expanded Operations Alternative for the SWEIS is based on an annual production rate of 80 pits per year in order to provide NNSA with some flexibility in obtaining the appropriate number of certified pits. The annual production rate of 80 pits analyzed in the Expanded Operations Alternative is the upper limit of the annual production rate at LANL. Although NNSA has proposed further transformations of the nuclear weapons complex to meet future national security needs, NNSA has not completed the *Complex Transformation SPEIS* and therefore has not made a decision on the configuration of the future complex, including decisions regarding whether to increase the pit production capabilities above 80 pits per year at LANL or another NNSA site. Any decision to increase pit production beyond 20 pits per year would be made after NNSA issues the Final *Complex Transformation SPEIS*; such a decision would be based on the analyses in the *Complex Transformation SPEIS*, the [LANL] SWEIS, and other information, including cost studies, budget projections, and national security requirements. A decision to increase pit production significantly above 20 pits annually would require NNSA to issue a new or revised ROD [for the LANL SWEIS]. LANL FSWEIS, p. S-45, italics in the original.

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<sup>1</sup> With one exception to NNSA's eight active nuclear weapons sites, the Kansas City Plant (KCP). NNSA argued that KCP could be excluded from nation-wide analysis of "Complex Transformation" because decisions made elsewhere in the nuclear weapons complex were not expected to affect KCP, and vice versa, a justification that Nuclear Watch disputes.

This is ironic in that the main purpose of the draft LANL SWEIS was to raise the Lab's level of pit production to 80 pits per year (with up to 30 rejects). We do agree with the NNSA's choice to defer a decision on expanding plutonium pit production to the Complex Transformation SPEIS rather than the LANL FSWEIS, as such a decision should flow from the nation-wide study as opposed to the site-specific study.

However, for the record in both the CT SPEIS and this LANL Final SWEIS, we firmly assert **that there is no need for expanded plutonium pit production.**<sup>2</sup>

Expanded production to the preferred 50/80 alternative, and even LANL's currently sanctioned rate of 20 pits per year, is unnecessary, expensive, environmentally risky, and provocative when we tell other countries they can't have nuclear weapons.

The draft SPEIS repeatedly states expanded plutonium pit production is driven by President Bush's 2001 Nuclear Posture Review (NPR). However, Congress has specifically required the incoming President to prepare a new Review, saying, "It should be used as a basis for establishing future United States arms control objectives and negotiating positions." The FY 2008 Defense Authorization Act, signed into law this January, also required a bi-partisan commission to recommend by this December the number of nuclear weapons really needed and the related appropriate size and composition of the nuclear weapons complex. The House Armed Services Committee specifically noted that following Bush's 2001 NPR "there is an urgent need for a debate over the role of nuclear weapons in U.S. strategic posture." In short, it makes no sense for expanded pit production at Los Alamos to proceed now before a new Nuclear Posture Review. Instead, it appears that NNSA is pushing hard to achieve its political aims before the Bush Administration's clock runs out.

Congress' investigative agency, the Government Accountability Office (GAO), has just released a report on the future costs and need for plutonium pit "trigger" production at the Los Alamos National Laboratory (LANL).<sup>3</sup>

LANL is currently producing pits for the sub-launched W88 warhead, whose last production was abruptly shut down following a 1989 FBI raid investigating environmental crimes at the Rocky Flats Plant. The GAO report notes that an NNSA February 2007 memo established a total production requirement of 31 W88 pits. More importantly, the memo had no requirement for the number of pits that should be produced every year. LANL produced eleven W88 pits in FY 2007, and arguably could complete its W88 pit production mission in just two more years.

Nevertheless, NNSA is pushing to expand pit production at Los Alamos to up to 80 pits per year in its current proposal for "Transformation" of its nuclear weapons complex and the LANL FSWEIS. However, that level of production is needed only for manufacturing new-design nuclear weapons, the so-called Reliable Replacement Warheads (RRWs). Congress rejected any funding for RRW in FY2008, and will likely do so again for FY 2009.

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<sup>2</sup> For Nuclear Watch's detailed argument that no pit production is necessary, especially given the Pantex Plant's authorization to "reuse" up to 350 existing pits per year, please see [http://www.nukewatch.org/facts/nwd/LANLPit%20Prod\\_3-1-08.pdf](http://www.nukewatch.org/facts/nwd/LANLPit%20Prod_3-1-08.pdf)

Further, we argue that NNSA's proposed expanded pit production is ultimately about producing new nuclear weapons, the so-called Reliable Replacement Warheads.

<sup>3</sup> "Nuclear Weapons: NNSA Needs to Establish a Cost and Schedule Baseline for Manufacturing a Critical Nuclear Weapon Component," GAO-08-593, May 23, 2008, <http://www.gao.gov/new.items/d08593.pdf>

There are eight other pit types besides the W88 in the deployed nuclear weapons stockpile. The Pantex Plant near Amarillo, TX, the site of final weapons assembly, is specifically authorized to “reuse” up to 350 existing pits per year in weapons refurbishments. Pantex itself boasts how pit reuse is far less expensive and environmentally damaging than the production of new pits.

**Thus, with no need to produce RRW or non-W88 pits, and only a limited set of W88 pits to produce, there is simply no need to expand beyond the currently sanctioned production level of up to 20 pits per year at LANL. Further, any decisions implementing expanded pit production are grossly premature before the already congressionally required review U.S. of nuclear weapons policies is completed.**

Again, we concur with NNSA’s decision to not make decisions on expanded plutonium pit production at LANL within the LANL SWEIS. However, we note NNSA’s explicit statement that it intends to issue a Record of Decision (ROD) on pit production for the LANL SWEIS subsequent to decisions made in the Complex Transformation SPEIS. Therefore, we restate our opposition to expanded pit production at LANL, now buttressed with evidence of low mission need and likely changes in Nuclear Posture Review requirements.

### **The Radiological Science Institute**

We are concerned that NEPA requirements are being given short shrift in regards to the “Radiological Science Institute” (RSI). The RSI as proposed in the SWEIS had only cursory analysis yet is huge, composed of up to 13 different new buildings and a vault capable of holding up to 6 metric tons of special nuclear materials. It will also be contiguous to TA-55, thereby creating the facility infrastructure for a super-plutonium complex.

**Considering the scope of the facilities proposed for the RSI under the Expanded Operations Alternative, NukeWatch asserts that the SWEIS alone is insufficient to sanction this project. Instead, a detailed project-specific environmental impact statement will be necessary before any construction begins. This applies to any first phase as well, given the National Environmental Policy Act’s requirement to consider and analyze connected actions.**

### **Waste Volumes Should be Reconciled**

We are having difficulty reconciling amounts of waste described in the FSWEIS to the Complex Transformation SPEIS. The CT SPEIS claims that producing 50-80 pits at LANL will generate 575 yds<sup>3</sup> per year of TRU waste. The FSWEIS only claims an increase of 250 yds<sup>3</sup> per year of TRU waste for 80 pits. P. S-149. The FSWEIS may be including 20 pits in the No Action Alternative, but is not specific enough for us to tell, and in any event the numbers still don’t line up. According to the SWEIS, 60 pits would produce 250 yds<sup>3</sup> of TRU, which is less than 50% of the total of 575 yds<sup>3</sup> projected by the CT SPEIS.

NNSA should use a consistent method for projecting the amount of TRU waste generated by similar levels of plutonium pit production in both the CT SPEIS and the LANL FSWEIS. The lack of uniformity in waste generation volumes between the two documents undermine the credibility of both documents.

### **The Advanced Fuel Cycle Facility**

Regarding the “Advanced Fuel Cycle Facility” proposed under the Global Nuclear Energy Partnership (GNEP): In the Summary, the FSWEIS refers to a particular GNEP-related facility as “a proposed advanced fuel cycle facility for research and development.”

Additional DOE or NNSA actions that could impact LANL include...a proposed advanced fuel cycle facility for research and development associated with the Global Nuclear Energy Partnership (GNEP) initiative. P. S-82.

Yet, in subsequent terminology the facility is referred to as “The Advanced Fuel Cycle Facility.”

Advanced Fuel Cycle Facility – On January 4, 2007, DOE issued an NOI (72 FR 331) to prepare a Programmatic EIS for the GNEP initiative... LANL is one of the DOE sites being considered for an advanced fuel cycle facility. The advanced fuel cycle facility would be a large shielded facility (approximately 1 million square feet [92,900 square meters]) (DOE 2008). Potential cumulative impacts at LANL associated with the proposed advanced fuel cycle facility are based on preliminary data and could change prior to the public release of the Draft GNEP PEIS. P. S-83.

Is the “Advanced Fuel Cycle Facility” for R&D or full-scale reprocessing? Will there be two GNEP- related facilities located at LANL, one for R&D and one conducting the reprocessing?

### **The Los Alamos Science Center**

We note the following from the Requests For Proposals for the Los Alamos Science Complex:

Los Alamos National Security, LLC (LANS) wishes to acquire a new Los Alamos Science Complex (Science Complex), a set of facilities that will consolidate scientific functions and staff into one location within the Property Protected Area (PPA) of Los Alamos National Laboratory (LANL). These functions and staff are now dispersed throughout several Technical Areas (TAs) within the site’s 40 mile boundary and housed in aging and outmoded facilities.

LANL has a number of large-scale, government-funded projects under way. It is unlikely that any additional line-item funding from the United States (U.S.) Congress could be made available in the foreseeable future for other needed facilities.

The preferred approach for this project is to utilize private sector ownership and financing, resulting in a lease with the Management and Operating (M&O) Contractor at LANL.

These kinds of arrangements differ from traditional line-item funding in that a private developer raises money in the private and/or public capital markets to design, finance, construct, lease and operate, a facility which would be utilized by the federal government, as well as other private concerns.

The Third-party developer creates a project based on general office and light laboratory requirements, which is then financed through the private bond market, without using the U.S. Treasury. LASC RFP, P. 1.<sup>4</sup>

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<sup>4</sup> Request for Proposal No. LASC RFP1, Los Alamos Science Complex, LOS ALAMOS NATIONAL SECURITY, LLC, April 17, 2008 (LA-UR-08-2481) <http://www.lanl.gov/orgs/sup/procurement/solicitations/lasc/rfp.shtml>

While Nuclear Watch supports locating non-weapons scientific functions and staff in modern, safe facilities, we are concerned about the use of third party funding used to circumvent traditional Congressional consent and approval. In a May 12, 2008 Report the U. S. Senate Committee on Armed Services states:

#### Construction projects

The committee is increasingly concerned that the Department of Energy (DOE) is moving away from funding construction projects with funds authorized and appropriated for line item construction projects and seeking non-traditional approaches to construction funding. These non-traditional projects may, in the long-term, be more expensive than traditional line item construction projects, and may introduce new security risks and other management complications at DOE sites. In addition, the committee is concerned that efforts to secure non-traditional funding may be because the projects in question do not meet programmatic requirements or fill programmatic needs. SASC Report 110–335. P. 513.

All facilities and projects should have approval and consent of Congress through the traditional budgetary authorization and appropriation cycle.

### **Comments on NNSA Responses to Nuclear Watch Comments on the Draft LANL SWEIS**

Regarding the need for expanded pit production capacity, NNSA states:

Neither the age of LANL's existing, 30-year-old Plutonium Facility nor its limited operational flexibility would allow it to support NNSA's need for pit production into the twenty-first century at the identified production level of 125 pits per year. Sec. 03 Comment Response Document P. 3-512.

Congress' investigative agency, the Government Accountability Office (GAO), has just released a report on the future costs and need for plutonium pit production at LANL. The GAO reports that an NNSA February 2007 memo established a total production requirement of just 31 W88 pits<sup>5</sup>. As 11 of those were fabricated in 2007, **it follows that LANL could produce the remainder in two years.**

The Expanded Operations Alternative in the SWEIS includes enhanced operations to produce up to 80 pits per year. However, the SWEIS does not address the Reliable Replacement Warhead Program. It is premature to evaluate site-specific impacts at this time because no decisions have been made regarding moving forward with the program, much less where various individual activities would be conducted. Sec. 03 Comment Response Document P. 3-523

Since, as stated above, the GAO reports that NNSA requires just 31 [non-RRW] pits, what is the justification for proposing Expanded Operations to 80 pits per year? We maintain that RRW IS driving the perceived need for expanded pit production.

**In the absence of an RRW program, it is premature to propose expanded pit production or the infrastructure to support it.**

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<sup>5</sup> "Nuclear Weapons: NNSA Needs to Establish a Cost and Schedule Baseline for Manufacturing a Critical Nuclear Weapon Component," GAO-08-593, May 23, 2008 <http://www.gao.gov/new.items/d08593.pdf>

Regarding our concerns about lack of complete containment at DARHT:

All plutonium tests would be conducted inside vessels. Sec. 03 CRD P. 3-526

**Are all current tests using plutonium at DARHT conducted inside vessels? If not, when will they be?**

Regarding the evaluation of the effects of intentional acts of destruction:

As discussed in Chapter 5, Section 5.12.6, the impacts of terrorist action are considered in a separate, classified appendix to the SWEIS.

(Chapter 5, Section 5.12.6) A separate classified appendix to this Final SWEIS has been prepared that considers the underlying facility threat assumptions with regard to malevolent, terrorist, or intentionally destructive acts. Based on these threat assumptions, the classified appendix evaluates the potential human health impacts using appropriate analytical models, similar to the methodology used in this SWEIS to analyze accident impacts. These data provide NNSA with information upon which to base, in part, decisions regarding activities at LANL. FSWEIS P. 5-204

**As this data in the classified appendix is used as a basis for decisions regarding activities at LANL, there should be an unclassified summary in the EIS.**

Regarding the determining the need for additional NEPA analysis of the environmental impacts of constructing and operating a new Radiological Sciences Institute:

...construction of the Institute for Nuclear Nonproliferation Science and Technology, is expected to start within the timeframe covered by the SWEIS. Subsequent project phases will be evaluated as they are further planned and defined. Based on these evaluations, NNSA will determine whether the impacts analyzed in this SWEIS bound the expected environmental impacts of constructing and operating a new Radiological Sciences Institute, or whether additional NEPA analysis and documentation are needed. Sec. 03 Comment Response Document P. 3-537/3-538.

A detailed project-specific EIS is necessary before constructing and operating a new Radiological Sciences Institute.

Regarding the NNSA's lack of adequate understanding of the geology under the proposed site for the Nuclear Facility at CMRR and the underground vaults for special nuclear material at the RSI:

NNSA assumes that the reviewer is referring to the identification of a thick, structurally weak, nonwelded tuff interval at depth beneath the Chemistry and Metallurgy Research Replacement Facility site at TA-55. The distance from the Radiological Sciences Institute vaults and tunnels to the nonwelded tuff depends primarily on the lateral continuity and structural characteristics of the layer. Additional site investigation is underway to determine the lateral extent of the ash layer and whether this is a significant issue for the Chemistry and Metallurgy Research Replacement Facility or other facilities such as the Radiological Sciences Institute. Sec. 03 Comment Response Document P. 3-539

NNSA has been dragging its feet on understanding this geology for decades. The data for evaluating the environmental impact of these facilities where SNM will be stored or handled is incomplete until the characteristics and extent of the underlying geology is understood.

Regarding faults in the TA-55/TA-48 area:

The Radiological Sciences Institute as presently planned would be greater than 0.4 miles from the Rendija Canyon Fault. Sec. 03 Comment Response Document P. 3-539

Is this the closest fault to the sites of the RSI facilities?

Regarding unsubstantiated assertions about economic multipliers:

Independent figures compiled for the Region of Influence by the U.S. Department of Commerce's Bureau of Economic Analysis indicate that, on average, another local job is indirectly created for every LANL position. Sec. 03 Comment Response Document P. 3-547

**Please cite the study referred to.**

Regarding an evaluation of unlined vs. lined trenches:

The future use of lined rather than unlined pits for low level radioactive waste disposal is under evaluation through the Area G Performance Assessment and Composite Analysis required by DOE Order 435.1, which is periodically reviewed and updated. Sec. 03 Comment Response Document P. 3-548

**Please post the *Area G Performance Assessment and Composite Analysis* online.**

Regarding conclusions in a detailed geotechnical report:

The ash layer is not a significant issue for existing facilities, but it does have a minor effect on seismic attenuation at the site. Identification of a buried ash layer is not, per se, seismic information; rather, it is geologic information that is important to the building design and construction concerns. A detailed geotechnical report prepared for the Chemistry and Metallurgy Research Replacement Facility Foundation concluded that the preferred site was acceptable for the planned facility. Sec. 03 Comment Response Document P. 3-551

**Please post the detailed geotechnical report referred to above.**

Regarding another reference to NNSA's incomplete understanding of the extent of the ash layer in the TA-55 vicinity:

Additional site investigation is underway to determine the lateral extent of the ash layer in the TA-55 vicinity; as information becomes available, it will be factored into the planning process for construction of other structures within the affected area. Sec. 03 Comment Response Document P. 3-552

**As stated earlier, the data for evaluating the environmental impact of these facilities where SNM will be stored or handled is incomplete until the characteristics and extent of the underlying geology is understood.**

Regarding the NNSA's poorly informed response to our comment about how the FSWEIS must address the EPA's special regulations concerning the impacts on drinking water from a single source:

The regional aquifer has not been designated a "sole-source aquifer" under the Environmental Protection Agency sole-source aquifer program. This issue is not addressed in the SWEIS. Sec. 03 Comment Response Document P. 3-559

Actually, the regional aquifer HAS been designated a "sole-source aquifer" under the Environmental Protection Agency sole-source aquifer program. We therefore reassert our initial comment and suggest that NNSA respond to it. More importantly, **a mitigation plan to address protection of the regional aquifer in accordance with the EPA Sole Source Aquifer Program should be incorporated into the pending Record of Decision on the SWEIS.**

Respectfully submitted,

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John Witham, Communications Director