



Comments to the National Nuclear Security Administration On the Draft Environmental Impact Statement for Continued Operation of the Los Alamos National Laboratory

September 27, 2006

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Dear Ms. Withers:

Nuclear Watch New Mexico hereby submits these final comments to the National Nuclear Security Administration (NNSA) on the Draft "Site-Wide Environmental Impact Statement for Continued Operation of the Los Alamos National Laboratory" (hereinafter "DSWEIS"). Whereas the announced deadline was September 20, we rely on your written assurance that comments received before September 30th will be accepted. Nevertheless, we still submit these comments under protest. As explained in our section on the inadequacy of the SWEIS process itself, we strongly believe that NNSA has failed both procedurally and substantively, which includes the following:

- Once a decision was made to dramatically expand plutonium pit production a new Notice of Intent should have been issued, thereby triggering a new round of required public scoping comment on this absolutely central issue that was absent in the previous scoping process;
- An inadequate comment period for the DSWEIS, which required the public to review and comment on some 30,000 pages of crucial reference documents that NNSA did not make easily available;
- Incomplete, outdated, or totally absent reference documents; and
- What we believe to be a willful attempt to avoid the "hard look" that the National Environmental Policy Act requires, including woefully inadequate discussion of "Purpose and Need" that intentionally avoided discussion of the programs that are driving NNSA's proclaimed need for expanded plutonium pit production to begin with.

We call upon NNSA to correct the clear deficiencies of this DSWEIS and its process to date by withdrawing it and preparing a new one. Should NNSA choose not to do so, that unfortunate decision must not categorically invalidate the many points we make. Each point should stand on its own merits and be objectively considered, wherever that consideration takes place.

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Contents

Executive Summary	—3
The SWEIS Process Is Seriously Flawed	—4
The NonProliferation Treaty	—7
The LANL SWEIS Needs to Consider “Complex 2030” Issues	—8
The Defense Nuclear Facilities Safety Board	—13
Plutonium Pit Production	—14
Can LANL Safely Expand Plutonium Pit Production To Begin With?	—15
Other Plutonium Issues	—17
The Reliable Replacement Warhead	—19
The Dual-Axis Radiographic Hydrotest Facility	—23
The Risks of Potential Terrorist Acts	—24
Quality Assurance	—25
Nuclear Safety at the Los Alamos National Laboratory	—25
A Failure to Adequately Consider Accident Scenarios	—33
Proposed DSWEIS Alternatives	—34
The Radiological Sciences Institute Should Not Proceed Until it Has a Separate EIS	—35
The Los Alamos Science Complex	—38
Criticality Experiments and Nuclear Materials at Technical Area-18	—39
The Metropolis Computing Center	—39
Radioactive Liquid Waste Treatment Facility Upgrade	—39
Offsite Recovery Project (OSRP)	—41
Socioeconomics	—42
Cleanup Must Not Include “Cap And Cover” Of Unlined Waste Dumps	—43
LANL Must Not Allow Contaminants To Reach The Aquifer Or The Rio Grande	—43
LANL Must Stringently Minimize The Use Of Our Precious Water	—43
Construction Of New Nuclear Weapons Facilities Should Cease Until Seismic Risks Are Fully Understood	—44
Transuranic Waste Issues in the LANL DSWEIS	—46
Land Transfers	—49
NEPA Categorical Exclusions	—49
Cumulative Impacts	—49
Endangered Species	—49
Fiscal Year 2006 LANL Ten Year Comprehensive Site Plan	—50

Executive Summary

Among other things, through its stated preferred “Expanded Operations Alternative” of increased nuclear weapons research and production at the Los Alamos National Laboratory (LANL), NNSA proposes to:

- Quadruple the production of plutonium pits, the atomic “triggers” for today’s thermonuclear weapons, from 20 to 80 per year.
- Because of increased production, radioactive bomb wastes will almost double, to be transported on public highways to the Waste Isolation Pilot Plant, the world’s only permanent dump for bomb wastes, “coincidentally” also in New Mexico.
- Increase its storage capacity of “special nuclear materials, mainly plutonium” to 7.3 tons at the Lab. A decade ago the Department of Energy declared an inventory of 3 metric tons of weapons-grade plutonium at LANL.
- Create the infrastructure, including up to nine new or upgraded facilities (nearly half of them with multiple buildings) directly related to nuclear weapons programs or in support of them. This could enable Los Alamos to become the nation’s permanent site for plutonium pit production. Even before this, Los Alamos is already the second largest production site in the American nuclear weapons complex.

Nuclear Watch joins with hundreds of fellow citizens and the Santa Fe City Council in opposing these plans.

Because of the many deficiencies in the current Draft SWEIS document we argue that NNSA must prepare a new Draft SWEIS correcting omissions.

We maintain it was a violation of National Environmental Policy Act regulations for NNSA to prepare a completely new SWEIS instead of the “Supplemental” specified in the Notice of Intent published in the Federal Register in January of 2005. Further, important reference documents are not incorporated into the substance of the DSWEIS, such as the Fiscal Year 2006 LANL Ten Year Comprehensive Site Plan. In some cases referenced documents are difficult for reviewers to access, such as the *LANL SWEIS Information Document Data Call Materials*, which is available only in hard copy at two locations. This Draft SWEIS is insufficient also in that it relies on numerous invalid, incomplete or future studies.

We suggest that through the expansion of plutonium activities and infrastructure, which the SWEIS seeks to implement, a *de facto* decision is being made to have Los Alamos become the nation’s permanent, consolidated plutonium center.

This Draft SWEIS intentionally disregards reports and recommendations made by the Defense Nuclear Facilities Safety Board about the potentially high hazard operations at LANL and its demonstrably poor safety record. It is reasonable to assume expanded operations will result in more accidents.

The Reliable Replacement Warhead Program is becoming a means unto itself, justifying the resurgence and revitalization of the nuclear weapons complex. We assert that it is absolutely central to any credible LANL SWEIS that there must be full analysis of the programmatic, infrastructure, production and proliferation implications of the RRW program.

LANL is still burying its radioactive wastes in unlined dumps. This whole concept should be reexamined and a new DSWEIS must consider the benefits of lining Lab dumps. Also, the Lab's legacy of operations has created a witch's brew of hundreds of contaminants in the soils and perched aquifers at the bottom of canyons. A new DSWEIS must contain accurate and independent data on threats to the Sole Source Aquifer and the migration of contaminants into the Rio Grande.

We suggest that construction of new nuclear weapons facilities with significant inventories of Materials At Risk should cease until seismic risks are more completely understood.

The DSWEIS is misleading in that it does not fully report the amount of transuranic waste that would be generated under the Expanded Operations Alternative. This waste will turn the site into a permanent, large-scale transuranic waste dump.

Nuclear Watch New Mexico requests that other alternatives be analyzed in a new DSWEIS. Among these alternatives there should be an "Energy Security Alternative" in which LANL should initiate a Manhattan-Project-styled assault on the world's global warming, energy-economy-security complex of problems. Solving this global problem would do more for national security than expanded nuclear weapons operations ever will.

The SWEIS Process Is Seriously Flawed

On January 5, 2005 NNSA published in the Federal Register a Notice of Intent to prepare a "Supplemental" Site-Wide Environmental Impact Statement For Continued Operations at LANL. At the time, NNSA stated that the Supplement would focus primarily on environmental impacts and cleanup actions that could occur over the next 5 to 6 years. Notably, nothing was said about increasing plutonium pit production from the then-sanctioned level of 20 pits per year. "Scoping" meetings were held and public comments considered to determine the scope of consideration in the Supplement.

In the interim, NNSA decided to prepare a completely new SWEIS in contrast to a supplement. On July 7, 2006, NNSA finally published a Notice of Availability for the draft, which explicitly stated the agency's intent to increased plutonium pit production to 80 pits per year, a dramatic change from the supplement. **We maintain that it was a violation of National Environmental Policy Act (NEPA) regulations to not have published a new Notice of Intent once a decision was made to prepare a completely new SWEIS, and subsequently hold a new round of scoping hearings and consideration of public scoping comments.**

With respect to the granted public comment period, first the minimal statutory requirement under NEPA for any run-of-the-mill environmental impact statement is 45 days. The DSWEIS is voluminous, some five inches high, in all comprising approximately 2,000 pages of often-dense material. Yet NNSA granted only a 60-day comment period (later extended by 15 days only because of public pressure).

Moreover, the draft SWEIS has 59 pages of lists of approximately 700 reference documents (some redundant) that largely act as the backbone of the SWEIS, and whose distribution in electronic CD form was severely limited both in number and to the regional area. In short, clearly NNSA's expectation was that citizens from around the country interested in the LANL DSWEIS would have to physically travel to the three official "Reading Rooms" in northern New Mexico and Albuquerque in order to view the reference documents that comprise at least 30,000 pages. That is an unreasonable expectation, which

NNSA should correct in future NEPA processes by posting both the NEPA document itself and all of its reference documents online.

The body of the reference documents itself is deficient by omissions. One example is that NNSA describes Ten Year Comprehensive Site Plans from its individual sites as the key planning documents for the future “intended” nuclear weapons complex. Yet, the DSWEIS lists only the LANL Plans for Fiscal Years 2000 and 2001, which are obviously not current. The FY 2006 LANL Ten Year Comprehensive Site Plan should be incorporated into the body of reference documents and made publicly available (and the pending FY 2007 Plan as well). Since we were able to obtain the 2006 Plan through litigation under the Freedom of Information Act, it figures prominently in our comments. However, the public at large was deprived of that right.

Another example is that the *LANL SWEIS Information Document, Data Call Materials*, is not available in any electronic document, and apparently hard copies are available at only two of the three Reading Rooms.¹ The meaning of the term Data Call is literal in that the preparers of the DSWEIS requested of LANL’s individual key facilities the necessary information that is then aggregated into forming the backbone of the DSWEIS. The Data Call is referenced more than 180 times in the DSWEIS (likely more than any other reference document, even the 1999 LANL SWEIS, which this new SWEIS is essentially in comparison to). The Data Call is where, for example, the DSWEIS’ future Lab activities and waste generation figures are derived from. It is unacceptable that the public is deprived of an opportunity to review the Data Call and thereby make better-informed comment on the DSWEIS. NNSA should make the Data Call publicly available and then restart the comment period 45 days from that time.

Toward that end, our attorney Alletta Belin wrote to NNSA on August 28. No answer was received. She wrote again on September 12, return receipt requested. In a response dated September 14, while refusing our demand, NNSA stated:

...requests for copies of the reference materials that have been made to date to the SWEIS Document Manager, Ms. Elizabeth Withers, have all been satisfied... no explicit request for specific reference materials have been denied by NNSA, and no reference requests from out-of-state parties has been made to NNSA with regard to the Draft SWEIS... We believe that the Draft SWEIS and its reference documents have been made publicly accessible by placing these documents in the three aforementioned DOE Reading Rooms, and these documents have been provided as requested to various individuals, stakeholders and organizations.²

There are a number of misstatements here. First, a concerned citizen e-mailed the following to Nuclear Watch:

It is my opinion that the DOE failed to make the SWEIS references available to the public or, even the NMED [New Mexico Environment Department], in any adequate way. In Santa Fe they chose to give a set to the CAB [Citizen Advisory Board], but the CAB

1 Nuclear Watch personnel verified at the LANL Reading Room that hardcopy of the Data Call was absent. The Reading Room’s “electronic kiosk” had one Data Call electronic file with one paragraph saying “Please see the *Los Alamos National Laboratory Site-Wide Environmental Impact Statement Information Document*, “Data Call Materials” notebook (hardcopy only)”, instead of its ~2,000 pages.

2 Letter to Ms. Alletta Belin, Attorney at Law, from Ms. Elizabeth Withers, NNSA SWEIS Document Manager, September 14, 2006.

seemed to think this was for the CAB use only, and they were very uncooperative when I approached them. The public did not know, or have a way of knowing, that the CAB had the references, until my complaint to Withers, which led her to put out an information sheet at the Santa Fe meeting, letting those present know that they could find the references at the CAB...

In summary, the handling of this matter was totally inadequate. Ms. Withers made no mention, on the SWEIS web site, where the SWEIS references could be found, other than the suggestion that NEPA documents were available on the DOE web site, which was untrue. The result was a lot of personal frustration on my part. I was left with the feeling that the DOE did not want, or make allowance, for ready public access to the SWEIS references. This was a grave failing, as this SWEIS draws heavily on the 1999 SWEIS and the documents since that time. Without the references those who would comment on the draft SWEIS are severely handicapped. This failure on the part of the DOE, and Ms. Withers, would be suitable material for a "Lesson Learned" as it would not serve the taxpayers to repeat this shoddy performance.³

Secondly, at the end of August, the Executive Director of PeaceAction New Mexico telephoned the LANL Reading Room and requested all reference documents. She was referred to the Environmental Outreach Office and was told that DOE had informed that Office to not to give out any further sets of the reference documents in CD form. She was further informed that once Nuclear Watch got its set of CD reference documents there would be no further distributed sets. Finally, she was told that should she choose to pursue her request for reference documents she would have to submit a formal request detailing who, what, when and why, and for what purpose the reference documents would be needed.⁴

Finally, the Institute for Energy and Environmental Research (which has long taken a keen interest in LANL issues) based in Takoma Park, MD, had the following e-mail correspondence with the NNSA SWEIS Document Manager:

To: "LANL_SWEIS" <lanl_sweis@doeal.gov>
From: Lois Chalmers/IEER
Subject: RE: LANL SWEIS - background documents on CD-ROM

Dear Ms. Withers:

Thank you for this information. But I don't understand. Obviously these are public documents -- but only for the public which has the time and means to visit the Reading Rooms?... The delay is, as you understand, especially burdensome since the comment period ends on September 20. The Department of Energy and Los Alamos National Laboratory has an obligation to do better than this.
Sincerely yours, Lois Chalmers

At 03:05 PM 8/15/2006 -0600, you wrote:

Dear Ms. Chalmers: We have a set of CDs of the references for the SWEIS (18 CDs total) and have made these sets available to our DOE Reading Rooms for people to use in the Reading Room... Sincerely, Elizabeth Withers

From: Lois Chalmers/IEER
Sent: Tuesday, August 15, 2006 1:13 PM
To: LANL_SWEIS
Subject: LANL SWEIS - background documents on CD-ROM

Dear Ms. Withers:

We have heard that there are background reference documents available on CD-ROM from DOE concerning the LANL SWEIS. Would you be able to send those documents to us? Please let me know if I should send my request to a different office or if you have questions about my request.

3 E-mail from Chris Mechels to Jay Coghlan, Nuclear Watch New Mexico, September 19, 2006.

4 Telephone conversation between Peggy Prince, Executive Director of Peace Action New Mexico, and Jay Coghlan, Nuclear Watch New Mexico, September 19, 2006.

Thus we conclude that that the Draft SWEIS reference documents have not been made adequately publicly accessible, nor provided as requested to various individuals, stakeholders and organizations.

In numerous instances the DSWEIS relies on invalid, incomplete or future studies. An example of an invalid study is the *Public Health Assessment for Los Alamos National Laboratory* by the Agency for Toxic Substances and Disease Registry (ATSDR) of the U.S. Department of Health and Human Services. The DSWEIS relies on that assessment's conclusion that there is nothing to link environmental factors with the observed incidence of any cancer in Los Alamos County. However, that assessment was rejected by the Environmental Protection Agency who said, "ATSDR should redo their risk assessment to reduce conservatism and not assume that there is no risk." That assessment has not been redone, but yet the DSWEIS relies upon it to assert that Laboratory operations have no appreciable negative effects on public health.

The *Mitigation Action Plan*, as per the Record of Decision for the 1999 LANL SWEIS, states "activities will be reported in a LANL Mitigation Monitoring Annual Report to be published each September beginning September 2000. The Annual Report will discuss activities accomplished in the previous year and activities to occur within the next year with specific actions to be taken."⁵ The Mitigation Action Plan is included as a DSWEIS reference document. Its annual monitoring reports are not, which prevents the public from commenting in this DSWEIS on the effectiveness on LANL mitigation measures.

The draft SWEIS was released before either an updated risk assessment for LANL's "low-level" radioactive waste dump at Area G or the 2006 seismic hazard study by the LANL Seismic Hazards Geology Team were completed. The Modern Pit Facility environmental impact statement, so heavily used and quoted in the DSWEIS as the bounding analysis for the risks of increased plutonium pit production, remains a draft document. Additionally, a word search of the reference documents shows that 16 other draft documents are used as references. The draft LANL SWEIS cannot honestly and completely inform the citizens of Northern New Mexico of LANL's potential impacts until the draft ATSDR public health assessment, the *Area G Performance Assessment and Composite Analysis for the LANL Material Disposal Area G* (the last available is from 1997) and the report of the LANL Seismic Hazards Geology Team have all been finalized. References to these and all draft and outdated documents in this draft SWEIS need to be qualified. Furthermore, the SWEIS process itself is invalid until those deficiencies are corrected.

In closing this section of comment, given its Notice of Intent in January 2005, NNSA was not exactly hurried in releasing the draft SWEIS in July 2006, but yet mandated an impractical period of time in which the public is supposed to review some 2,000 technical pages in the DSWEIS and an estimated 30,000 pages in reference documents and prepare comments. Moreover, to this day NNSA impedes convenient public access to the crucial reference documents and substantially bases the DSWEIS on invalid, uncompleted or omitted studies. Hence the DSWEIS process is severely flawed and should be started all over again.

The NonProliferation Treaty

The 1970 NonProliferation Treaty (NPT) obliged all nuclear weapons states signatories to Article VI, which states "Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament..." In 1996, the

5 Mitigation Action Plan For the LANL SWEIS, U.S. DOE Defense Programs, Washington, D.C., DOE/EIS-0238, October 1999, p. 16.

International Court of Justice ruled that the use or threat of use of nuclear weapons was illegal, except for extreme cases of dire national survival, and concrete steps toward disarmament were required. At the 2000 NPT Review Conference the nuclear weapons signatories pledged to 13 specific disarmament steps, which included an “unequivocal undertaking by the nuclear-weapons States to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all states are committed under Article VI.”

The DSWEIS’s preferred “Expanded Operations Alternative” of increased nuclear weapons research and production at LANL directly contradicts that Treaty obligation, especially given NNSA plans to increase nuclear weapons production, including new designs under the so-called Reliable Replacement Warhead Program. The final SWEIS for Continued Operations at LANL should comport with not only the NPT’s mandate to disarm nuclear stockpiles, but also with the critical need for the U.S. to lead by example in ridding the world of weapons of mass destruction, of which nuclear weapons are unquestionably both the most militarily useful and the most destructive.

The LANL SWEIS Needs to Consider “Complex 2030” Issues

The DSWEIS states:

NNSA is developing a strategy for continuing the transformation of the weapons complex, which began with the cessation of manufacturing at the Rocky Flats Plant, the end of the Cold War, and the U.S.’s suspension of nuclear weapons testing. NNSA refers to this strategy as a “planning scenario for Complex 2030;” it will set NNSA’s vision of the complex in 2030. Budgetary requests to Congress, beginning with the President’s Budget for Fiscal Years 2007 through 2011, will influence the evolution of this strategy. *When the strategy has become sufficiently defined so that proposed actions can be identified, NNSA will need to determine what NEPA analyses it needs to conduct for the proposals.* In the short term, over the next 5 years, LANL operations are not expected to change dramatically regardless of the strategy NNSA develops for continuing the transformation of the nuclear weapons complex. However, in recognition of the uncertainties associated with future work assignments to LANL, the “foreseeable future” for the purposes of proposed actions in this SWEIS has been changed from the 10 years of LANL operations considered in the 1999 SWEIS to consideration of proposals regarding LANL operations over the next 5 years. *While uncertainty remains about the future work NNSA will assign to LANL to support NNSA missions, the overall need to continue operation of LANL is unlikely to change over the next several years.* DSWEIS, pp. S-4 & 5, emphases added.

First of all, it is not a question of the “next several years”, but instead five, the declared time period of analysis for this SWEIS. Further, we believe that Complex 2030 issues are already beginning to impact Laboratory operations, for example with the Reliable Replacement Warhead Program and the pending transfer of special nuclear materials from the Lawrence Livermore National Laboratory to LANL (which apparently could begin as early as 2008). To add to all this, NNSA now clearly believes, less than two months after the release of the DSWEIS, that the Complex 2030 “strategy” has become sufficiently defined so that proposed actions can be identified and that the initiation of its NEPA process is now required.

Senator Jeff Bingaman requested that the DSWEIS public comment period be extended and a public hearing held in Albuquerque. NNSA responded with the following:

Many of the comments we have received to date in the Draft SWEIS have focused on the proposed interim increase in plutonium pit production at LANL. On April 5, 2006, the then Acting Deputy Administrator for Defense Programs, NNSA, Thomas P. D'Agostino, made a statement before the House Armed Services Committee, Subcommittee on Strategic Forces, on the nuclear weapons complex of the future. In his statement, Mr. D'Agostino identified certain proposed changes to the nuclear weapons complex and the Stockpile Stewardship Program that would require compliance with the National Environmental Policy Act (NEPA); he also stated that NNSA would begin such a regulatory compliance process in 2006. *NNSA will soon issue a Notice of Intent to prepare a programmatic environmental impact statement (PEIS) on Complex 2030 Transformation.* This Notice of Intent will include information about the public scoping process for that document. We anticipate that many of the comments that have been made and will be made yet on the Draft SWEIS will be more directly applicable to this broader-based programmatic NEPA document that the nuclear weapons complex of the future will address, in part, the overall pit production need in context with the NNSA's production requirements in a fashion that is beyond the scope of the Draft SWEIS. We will recommend strongly that hearings for the PEIS be held in Albuquerque.⁶

The Department of Energy's website for "Schedules of key environmental impact statements" now says that a Notice of Intent will be issued for the Complex 2030 PEIS next month, a draft issued in July 2007, and its Record of Decision reached in June 2008. Clearly this will impact Lab operations within the SWEIS's 5-year planning horizon.

In the congressional testimony referenced above, while mentioning his desire to "restore us to a level of capability comparable to what we had during the Cold War", Mr. D'Agostino stated:

There are two key recommendations from the Task Force with which we partially agree, but differ on specifics. The most sweeping recommendation was for DOE to establish, by 2015, a Consolidated Nuclear Production Center (CNPC) to be the single site for all R&D and production involving significant amounts (i.e., Category I/II quantities) of SNM. The CNPC would provide a production capacity of, among other things, about 125 pits per year to the stockpile. We generally agree with the stated production capacity requirements, but disagree on a single site for all Cat I/II SNM-related R&D and production...

Plutonium operations: All R&D (except sub-critical experiments at NTS), surveillance, and production involving Cat I/II quantities of plutonium would be transferred to the consolidated plutonium center. The center would have a baseline production capacity of 125 pits per year net to the stockpile by 2022. The location of the center remains to be determined but it would be situated at an existing Cat I/II site. To support interim pit production needs prior to 2022, the plutonium facility at Tech Area 55 at LANL would be upgraded by 2012 to a production rate of 30-50 war reserve pits per year continuing until the center can meet the needs of the stockpile. To support plutonium operations at LANL, and to absorb Cat I/II plutonium R&D currently being carried out at Building 332 at LLNL, the Chemistry and Metallurgy Research–Replacement (CMRR) facility would be operated

⁶ Edwin Wilmot, NNSA Los Alamos Site Office Manager, to Senator Jeff Bingaman, September 7, 2006, emphasis added.

as a Cat I/II facility up to 2022. Once the consolidated plutonium center is operational, all Cat I/II activities at TA-55 and CMRR would be transitioned there.

Perhaps the single most key question we pose in this whole process is whether the SWEIS lays the foundation for a *de facto* decision to make Los Alamos the nation's consolidated plutonium center through major expansion of the Lab's current plutonium activities and infrastructure. We don't pull this question out of thin air. Our concern is shared by others, notably Senator Bingaman, who wrote:

I have further indicated to NNSA officials that I am very concerned about the change in LANL's mission predominately from research to actual plutonium pit manufacturing. I am well aware that there is currently no other facility in the United States that is capable of producing these pits, and also that as a matter of national security, additional pits are needed as part of the Stockpile Stewardship Program in order for our country to maintain a safe and reliable stockpile. I have been told that the increased pit production proposed in the SWEIS is intended to serve as an "interim bridge" until a consolidated plutonium complex can be built for maintaining our future stockpile in the 2020 time frame. I am concerned, however, that the NNSA may make a substantial investment in this "interim" capability and then later determine it unwise to invest in an entirely new consolidated plutonium complex.⁷

While we discuss some of the plutonium activities and infrastructure issues in a following section, here we review some of the recent congressional legislative history.

In May, the congressional House Subcommittee for Energy and Water Development Appropriations cut Fiscal Year 2007 construction funding for the Chemistry and Metallurgy Research Replacement Project (CMRR) from the requested \$112,422,000 to \$12,422,000. CMRR is a new advanced plutonium facility now being built next to LANL's existing pit production facility. As the House Subcommittee put it, because of the transition to Complex 2030, "CMRR will serve its primary production support function for only eight years before it is made obsolete by the new [consolidated] plutonium facility... *The Committee finds this type of planning by the NNSA simply irrational.* It appears designed to maximize future budgets and the number of new facilities required... The Committee directs the Department [of Energy] to terminate the CMRR project and instead co-locate future production capacity and the radiological chemistry materials research work."

The subcommittee further noted "*A billion dollar investment in the CMRR at Los Alamos only makes sense if the NNSA is prepared to site the Consolidated Nuclear Production Center, or at a minimum the Consolidated Plutonium Production Center, at the same location.*" This distinctly raises the possibility that long-term plutonium pit production could remain and be expanded at LANL. Emphases added.

In a contrary fashion, in July the Senate Subcommittee for Energy and Water Development Appropriations, chaired by New Mexico's Pete Domenici (long an ardent supporter of LANL's nuclear weapons programs), fully funded the construction of CMRR. The Subcommittee was "skeptical" that other new plutonium storage and manufacturing facilities can be built anywhere else in the foreseeable future. The Subcommittee reminded the Department of Energy "that it has been unable to secure funding in the current year to support planning for a Modern Pit Facility. As such, the Committee directs the Department to consider alternatives to making changes to the CMRR facility to accommodate an expanded mission scope." The Subcommittee required completion of a report by NNSA on that subject by June 1, 2007.

⁷ E-mailed letter from Senator Bingaman to Sue Dayton, Citizen Action Executive Director, September 21, 2006.

In context, the clear implication is that CMRR, linked via underground tunnels to the pit production facility, could take on more of a direct production role over time. Moreover, the combination of the two subcommittees' statements, to wit CMRR makes sense only if Los Alamos is to become the nation's consolidated plutonium center and that new nuclear weapons-related plutonium facilities other than at LANL are unlikely, show a strong congressional trend to create a "Modern Pit Facility-lite"⁸ in northern New Mexico. Nuclear Watch New Mexico believes this SWEIS is creating the plutonium infrastructure that will enable that to happen.

In all fairness, at first glance recent NNSA viewgraphs seemingly contradict our thesis, as follows:

[Goal] Transform to a modernized, cost-effective nuclear weapons complex.

- Go to a consolidated plutonium center by 2022 with distributed modernization in place for remaining capabilities...
- Consolidate CAT I/II special nuclear (SNM) materials – no CAT I/II SNM at national labs in the long-term, fewer locations within production plants.
Create a consolidated plutonium center for CAT I/II quantities of materials.

By 2022 LANL (the Laboratory) will not operate facilities containing CAT I/II quantities of SNM. The location and operator of the consolidated plutonium center will be determined following NEPA compliance actions... [parens in the original]

- Plan, construct, and start up a consolidated plutonium center at an existing CAT I/II site for long-term NNSA plutonium CAT I/II R&D, surveillance, manufacturing, and storage/disposition operations.
 - Complete the consolidated plutonium center with a capacity to support 125 RRW war reserve pits per year by 2022.⁹

However, in keeping with the dictum that the future consolidated plutonium center will be built at an existing Category I/II special nuclear materials site, LANL is, of course, already such a site. We repeat the argument that past and future investments in the Lab's plutonium infrastructure will likely increase momentum to have LANL be the nation's permanent site for plutonium pit production, largely out of fiscal constraints alone. Finally, we note that the location and operator for the future center remain unknown. But we find the phrase "LANL (the Laboratory)" to be curious. Of course LANL is the Laboratory. But we can't help but ask if there is any future possibility that there could be different entities at Los Alamos, one on the nuclear weapons research and development side that remains "the Laboratory", and a different entity that would be responsible for Los Alamos's ever-increasing production role.

Our speculation here may not be so far-fetched. The visible initiating driver for "Complex 2030" was the July 2005 Draft Final "Report of the Nuclear Weapons Complex Infrastructure Task Force Recommendations for the Nuclear Weapons Complex of the Future", which reported at length:

⁸ Briefly, the Modern Pit Facility (MPF) is a former NNSA proposal to build and operate a super facility capable of producing up to 450 plutonium pits per year. Five candidate sites were proposed, including LANL. NNSA completed a draft MPF environmental impact statement in 2003, but to date has not gone further due to "congressional concerns." Congress has declined to fund MPF design work for the last two consecutive years.

⁹ "Complex 2030, A Preferred Infrastructure Planning Scenario for the Nuclear Weapons Complex", NNSA viewgraphs, May 2006, <http://www.doeal.gov/LLNLCompetition/BriefingAndSiteTourInfo/03TransformationComplex2030BriefWithLLNLActivities.ppt>

We considered production perspectives that a commercial company, with experience in comparable materials, might have on the Complex pit production operations and facilities... The Task Force feels that the Complex would benefit greatly from a greater reliance on advanced manufacturing tools, methodology, and experienced personnel drawn from the commercial state of the art manufacturing industry rather than a modernization of approaches developed 40 years ago within the Complex. The inclusion of such outside experts would likely have a great impact on cost of the CNPC [future Consolidated Nuclear Production Complex] and productivity of the future production complex...

One potential enabler of consolidation and efficiency would be functional contracting. Under this concept, contract awards for mission areas would be based on functional task leads as discussed in Section 5.5.1, without regard to geographic boundaries. For example, the pit production mission could be assigned to an industrial contractor who could be the production contractor at the CNPC as well as the pit production manager in TA-55 at LANL...

NNSA should consider contracting on the basis of functionality within the Complex, as opposed to contracting on the basis of geographical location; in particular, NNSA should contract for the management of pit production at the new CNPC that also covers interim pit production at TA-55.

The Study group reviewed the current TA-55 pit production facility at LANL, the proposed plan and cost estimate for the Modern Pit Facility (MPF). We were looking for the perspectives that a commercial company, with experience in comparable materials, might have on operations and facilities for the task of making pits.

The conclusions are:

- 1) Using standard industrial approaches rather than DOE designs would substantially reduce the cost of the MPF facility with no compromise in capability...
- 3) The TA-55 facility is not being run as a production unit, but rather as a research and compliance driven facility. Productivity is about 5% of what would be required and achievable of an industrial operation in the same facility with the same task.

TA-55 is a remarkable facility. The attention to detail at every level of manufacture is to be commended. It is obvious that processes have been laboriously developed to provide a quality product safely. However, the manufacturing priorities appear to be: (1) Safety, (2) Security, (3) Quality. *The one missing element is: Productivity...* Modern manufacturing techniques... if applied rigorously could yield unprecedented reductions in TA-55 pit manufacturing costs and cycle time... The enormous investment made in the TA-55 facility has not yielded anywhere near the productivity levels this facility should be capable of attaining.

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

In conclusion, the TA-55 facility is an expensive national asset, which has the opportunity to be a dramatically more effective and efficient facility if operated as a modern production facility, utilizing available automation and world class operations management techniques.¹⁰

Again, the “consolidation report” was the main visible initiator of Complex 2030. Given the confluence of events, that is growing congressional momentum toward making LANL the nation’s permanent plutonium pit production site because of fiscal constraints, the reported unlikelihood of building new nuclear weapons-related plutonium facility other than at LANL, and the consolidation report’s scathing indictment of the lack of pit production productivity at TA-55, it is not unreasonable to speculate that a commercial contractor could take over LANL’s ever-increasing production missions as an entity separate from “the Laboratory.” **A new DSWEIS must disclose any reasonably foreseeable possibility of a separate contractor assuming production responsibilities at LANL.**

Alternatively, perhaps NNSA feels that it has already met that need by awarding the Lab’s new management contract to a limited liability corporation that now includes three commercial corporations. **In any event, a new DSWEIS must analyze and disclose how increased manufacturing efficiencies alone could substitute for the “Modern Pit Facility”, resulting in Los Alamos becoming the nation’s permanent plutonium pit production site.**

The Defense Nuclear Facilities Safety Board

In our February 2005 SWEIS scoping comments Nuclear Watch New Mexico (NWNM) stated:

All Defense Nuclear Facilities Safety Board (DNFSB) reports and recommendations should be incorporated into the new SWEIS or S-SWEIS. 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 SWEIS or S-SWEIS 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 1999 SWEIS in a manner that addresses the concerns and comments expressed by the DNFSB in the past five years.¹¹

The gravity of safety issues at LANL is made painfully clear by the widely publicized stand down to nuclear and other operations at the Lab for a six-month period during 2004/2005, costing the American taxpayer an estimated 365 million dollars. The only real independent safety oversight of the nuclear weapons complex is provided by DNFSB, created by Congress in the late 1980’s for that express purpose as the complex’s grave issues became more widely known. As the DNFSB has repeatedly reported, the operational standdown at LANL has by no means solved the Lab’s serious safety issues, many of which remain unaddressed to this day.

10 Report of the Nuclear Weapons Complex Infrastructure Task Force Recommendations for the Nuclear Weapons Complex of the Future, Secretary of Energy Advisory Board U.S. Department of Energy, July 13, 2005, pp. 17, 30, 35, H-1 & H-5 to 6.

11 LANL SWEIS Scoping Comments, Nuclear Watch of New Mexico, February 28, 2005, <http://www.nuke-watch.org/facts/nwd/NWNM-lanlsweis02-28-05.pdf>

We repeat by incorporation here the same comments we made for SWEIS scoping. NNSA not only ignored our scoping comment while framing the DSWEIS, it neglected to even mention it as an issue that was commented upon and then rejected, and hence that rejection is not explained. Nevertheless, many DNFSB concerns are interwoven throughout our comments here.

A word search shows that DNFSB is mentioned in the DSWEIS only to list it as a federal agency to which the document was distributed to, and to note that the Safety Board expressed concern over inadequate electric transmission lines (DSWEIS p. 4-124), something which the Lab clearly wants to improve. So the only time the DSWEIS substantively references the DNFSB is to support something that LANL wants. Why are the hundreds of other DNFSB concerns, including many related to the Lab's highest hazard nuclear operations, not addressed as well? To us, the answer is that the DSWEIS is a seriously deficient document that intentionally seeks to paper over the potentially serious consequences of high hazard operations at LANL, which time and again the DNFSB has demonstrated have a poor safety record. The DSWEIS should be withdrawn, and a new one completed that fully addresses DNFSB concerns.

Plutonium Pit Production

The central issue discussed in the DSWEIS is the proposed expansion of plutonium pit production at LANL from 20 pits per year to 80. Pits are the atomic "triggers" for today's nuclear weapons, and their production was formerly done at the notorious Rocky Flats Plant until operations ceased following a FBI raid investigating environmental crimes. The NNSA has since struggled to establish "interim" production at the Lab, while at the same time proposing to build and operate a future "Modern Pit Facility" (MPF) capable of producing up to 450 pits per year at one of five candidate sites (including LANL). That proposal would truly represent a return by the U.S. to industrial-scale nuclear bomb production, but fortunately MPF funding has been rejected by Congress for two consecutive years.

While again that congressional rejection is fortuitous, it will inevitably have a negative boomerang effect on LANL. The danger now is that NNSA will seek to implement an "MPF-lite" at the Lab, for which the DSWEIS likely sets the stage. Although the DSWEIS explicitly states that no new additions will be built for LANL's existing pit production facility that is not the whole picture. An advanced plutonium laboratory called the Chemistry and Metallurgy Research Replacement Project (CMRR) is now being built next door to the pit production facility as part of the DSWEIS' "No Action Alternative." CMRR will clearly be in direct support of plutonium pit production through its planned assay and materials characterization of special nuclear materials, primarily plutonium.

But there is far more. In a DSWEIS reference document an aerial photograph of LANL's plutonium complex at Technical Area (TA)-55 has superimposed upon it speculative "Modern Pit Annexes" and "Additional Facility Sites" contiguous to the existing pit production facility. Taken together, their aggregated floor space seems to exceed that of the existing facility. Moreover, the Radiological Sciences Institute, the single biggest construction project proposed in the DSWEIS (up to 13 new buildings), could also directly add to plutonium pit production capability in the future. First, the Institute will be primarily located at TA-48, contiguous to TA-55. It will reportedly have a Security Category I/II vault for special nuclear materials and underground tunnels so that aboveground transport of SNM on roads can be avoided. It is not stated where the tunnels would lead to, but we assume they could lead to the plutonium pit production facility. The Institute is planned to have machining capabilities. In short, the DSWEIS seems intent on creating a facility infrastructure that could enable future plutonium pit production levels even above that of the 80 pits per year contemplated in the DSWEIS.

The Final SWEIS should disclose how that might be true, especially in the event that Congress continues to reject a Modern Pit Facility.

Even the proposed production level of up to 80 pits per year is unjustified. First, NNSA claims that production of 80 pits per year may be necessary just to obtain the 50 pits “certified” for use in nuclear weapons in the active military stockpile (in other words, a substantial number may be rejected and not certified). The final SWEIS should disclose that once production of any kind of pit, certified or not, is approved at 80 per year, what is to prevent NNSA from producing 80 certified pits?

NNSA is required by legislation to complete “pit lifetime studies” and have independent senior nuclear weapons scientists review the results by the end of this year. Those senior scientists have repeatedly stated that operational plutonium pit lifetimes are more on the order of 60 to 90 years, rather than NNSA’s currently accepted 45 years. Those senior scientists to date have also refrained from establishing any outward date at which operational lifetimes would expire, meaning that plutonium pits could conceivably last more than a hundred years. The implications here are enormous, in that it strongly undermines the need for the production of 80 (or 50 certified) pits per year. The final SWEIS should fully incorporate the findings of the NNSA pit lifetime studies and their independent review. Even outside of the SWEIS process, any NNSA decision to increase plutonium pit production is premature before those results are reached.

Can LANL Safely Expand Plutonium Pit Production To Begin With?

Over the last decade or so, DOE/NNSA officials have repeatedly made assurances that lessons were learned from the notorious history of plutonium pit production at the Rocky Flats Plant and that future pit production elsewhere would be safe. The inside story suggests otherwise. Below we have excerpted at length in italics a very recent DNFSB LANL weekly report,¹² with our comments in plain text. **The essential question is whether LANL is even capable of safely expanding plutonium pit production and other plutonium operations. The DSWEIS is completely deficient in analyzing these issues.**

...NNSA and LANL envision dramatic increases in material through-put and operating tempo for the Plutonium Facility (TA-55) during the next six years, including an order-of-magnitude increase in pit production (~80 pits/yr), a Pu-oxide campaign to provide startup feed for the Savannah River Sites’s new mixed oxide fuel plant (~80 kg/yr), and a Pu-238 heat-source campaign (~9 kg/yr).

NNSA and LANL are also planning to complete roughly two billion dollars of nuclear facility investment by 2014, including an analytical chemistry and material characterization lab (CMRR), a radioactive liquid waste treatment facility (RLWTF), a TRU waste processing and shipping facility, a pit radiography facility, and TA-55 programmatic, security, and facility upgrades. By 2022, NNSA intends to consolidate such plutonium operations at an unspecified DOE site, as part of the new NNSA vision for the 2030 Complex. Indeed, the future consolidated plutonium site is not yet specified, but for the record a new DSWEIS needs to disclose whether LANL is excluded or not from being that future site. Further, a new DSWEIS should analyze how the \$2 billion investment mentioned above could prejudice that future decision toward LANL becoming the nation’s permanent nuclear weapons plutonium center.

While process knowledge exists, synthesis for the next decade’s objectives is largely lacking, particularly for support functions (e.g., residue and waste processing). Pre-conceptual studies on pit manufacturing options are the most mature of studies contemplated and are based on recent TA-55 experience. The

12 DNFSB Los Alamos Report for Week Ending August 25, 2006, bolded emphases added.

least desirable option from a safety perspective involves concurrently modifying rooms while conducting operations; this may become the choice by default without NNSA close engagement, not now evident. Here, the DNFSB may have perhaps erred in stating that this may become the choice by default. It appears to be precisely NNSA's and LANL's choice, as the DSWEIS explicitly states:

The Plutonium Facility Complex Refurbishment Project would enable an extension of the facility's lifetime by recapitalizing selected major facility systems to help ensure the facility's continuing capability and reliability to support NNSA's missions. In this project, major (also referred to as "critical") systems are defined as those facility and infrastructure systems whose loss of functionality or reliability due to an emergent disability could disrupt TA-55 Complex operations for an unacceptably long duration pending repair. ... The scope of the overall project is to modernize and upgrade facility and infrastructure portions of the TA-55 Complex that are approaching the end of life. DSWEIS, p. G-110 & 111, parens in the original.

A new DSWEIS must answer the question of how safety will not be compromised if critical systems are being modified while operations are ongoing.

Longstanding infrastructure problems have also allowed plutonium residue and TRU waste inventories to grow to where they impact both mission and safety, virtually ensuring failure unless addressed as a priority. For example: • half of LANL's 9,000 nuclear material containers are non-standard and suspect... • the LANL comprehensive nuclear materials packaging and storage plan - which was developed in response to the 2003 Pu-238 Type B investigation and the 2004 Secretary's 00-1 implementation plan - is still draft and unapproved by NNSA (ref: Secretary's ltr 7/23/04 ; this plan is a key element in LANL systematically and safely addressing its large plutonium residue backlog. When are nuclear materials going to be adequately packaged? Why isn't this a stated high priority mission in the DSWEIS? Inadequate and deteriorating nuclear packages have lead to relatively recent, serious occupational exposures.

• the 1960s-era RLWTF [Radioactive Liquid Waste Treatment Facility] is a potential single point failure; it has not processed significant TRU liquid waste from TA-55 in two years. • as a result of RLWTF issues, TA-55 has been unable to process residues, is now near its residue storage capacity, and is within 6 months of having to curtail pit operations unless resolved . • LANL expects RLWTF TRU processing to resume during the next 18 months, starting in November, and needs it to ramp up to 2 to 5 times its previous throughput. • LANL has been slow to pursue options (e.g., CLEAR line) to capture more source term at TA-55, the more robust facility, and thereby reduce the load on RLWTF. How can LANL possibly be ready for expanded plutonium pit production at TA-55 if the RLWTF is in no condition to receive additional radioactive transuranic liquids wastes? Given all of LANL's past faulty assumptions and failures, what is to guarantee that RLWTF will not only resume processing, but also be able to increase operations 2 to 5 fold?

• TA-55 needs to remove 30 to 60 contaminated glove-boxes within the next few years to make space for new equipment, but LANL has no capability now for large item size reduction. How is expanded pit production feasible if there is no way to get rid of the contaminated gloveboxes?

• LANL has 50,000 TRU waste drums to ship to WIPP by 2010; shipment rate is limited by facility authorization basis and material condition issues; hundreds of higher activity drums still have no approved pathway off-site... • the off-site risk from TA-54 TRU waste drums remains high until nearly

all the drums are shipped, according to DOE approved accident analyses. That is an astounding number of TRU waste drums, which we can't possibly imagine LANL being capable of shipping in any timely fashion. A new DSWEIS should propose hardened structures for storage of TRU wastes, in contrast to the deteriorating fabric air buildings that now house them.

• *TA-55 is nearly three decades old and at a point when equipment needs to be upgraded or replaced; however, NNSA is delaying and scaling back the TA-55 reinvestment project.* How does the DNFSB's observation square with the DSWEIS? Is the DNFSB right or wrong? Obviously, the TA-55 Reinvestment Project is one of the dominant elements in the DSWEIS. How much will it cost? Will it be scaled down, as the DNFSB suggests?

These problems are linked to some of LANL's most fundamental nuclear safety issues. For example: resolution of the TA-55 confinement strategy issue may depend on TA-55 reinvestment project upgrades that are now being delayed or are unscheduled (e.g., ventilation, fire protection). NNSA has long fought the DNFSB's Recommendation that all major nuclear weapons facilities have active confinement for the event of any accidents. Instead, NNSA still chooses to follow passive confinement measures. A new DSWEIS should explain why active confinement is not pursued both while refurbishing TA-55 and in the design and construction of the Chemistry and Metallurgy Research Replacement Project. Active confinement would clearly better protect workers and the public. Is the refusal to do so primarily based on cost concerns?

We attempt to be objective and here exclude our policy reasons of why we are staunchly opposed to expanded plutonium pit production. But we have to conclude that LANL is simply not ready for expanded plutonium operations because of serious safety and waste management issues. A new DSWEIS must make a decision to expand plutonium operations far more defensible.

Other Plutonium Issues

The March 2005 Site-Wide Environmental Impact Statement for the Lawrence Livermore National Laboratory declared an "administrative limit" of 1,400 kilograms of plutonium and 500 kilograms of highly enriched uranium for that Lab. The LANL DSWEIS declares an administrative limit of 1,000 grams of tritium at the Weapons Engineering Tritium Facility, but according to a word search there is no other stated administrative limit for nuclear materials. A new DSWEIS should correct this. What are the plutonium and highly enriched uranium administrative limits for LANL as a whole and for TA-55 in particular? What about TA-18? What about future administrative limits for TA-48?

Also under this [expanded operations] alternative up to 460 pounds (210 kilograms) of plutonium oxide would be polished annually and stored pending shipment for use at the Mixed Oxide Fuel Fabrication Facility at the Savannah River Site... DSWEIS, p. 3-69. In addition, the restart of the Mixed Oxide Program, converting weapons-grade plutonium to a form usable in commercial reactors, could generate additional quantities of transuranic waste (LANL 2004i)... Radioactive liquid waste treatment volumes are expected to increase under the Expanded Operations Alternative, due to increased levels of pit production and restart of the Mixed Oxide Program. DSWEIS, p. 5-140. In addition, 46 cubic yards of transuranic waste per year is projected due to restart of Mixed Oxide Program (LANL 2004i). DSWEIS, p. 5-141. As we commented on expanded plutonium pit production, LANL's waste management and safety practices do not support these expanded operations with nuclear materials.

DSWEIS Table 3-18 states that the Expanded Operations Alternative will include the capacity to disassemble up to 500 plutonium pits per year, in contrast to the “No Action Alternative” of 200 pits per year. Almost no discussion ensues, except *Special recovery processes are performed, including demonstration of the disassembly and conversion of plutonium pits using hydride-dehydride processes and development of expanded disassembly capacity.* DSWEIS, p. 3-57. This is a significant failure that a new DSWEIS must correct.

“Hydride-dehydride processes” are probably the “Advanced Recovery and Integrated Extraction System” (ARIES), which a new DSWEIS should fully explain the merits and demerits thereof. What waste volumes in all categories will result from ARIES? What safety problems might there be with the process? Where will the recovered plutonium be stored? What might it be used for? What is the final disposition for unused plutonium?

A NNSA viewgraph states “De-inventory CAT I/II SNM [special nuclear materials] removed from LLNL by the end of 2014 (tied to CMRR). Move SNM in 2008 or earlier.”¹³ Translated, that means that Lawrence Livermore National Laboratory’s inventory of up to 700 kilograms of plutonium will be relocated to LANL’s Chemistry and Metallurgy Research Replacement Project once it is completed by 2008, or earlier. And again, expanded operations include the dismantlement of up to 500 plutonium pits per year. We assume those pits would have to come from the Pantex Plant outside of Amarillo, TX, which has some 12,000 pits stored under arguably unsafe conditions awaiting final disposition.

The DSWEIS has a number of tables that depict shipments of special nuclear materials, some 60 per year, from LANL to other NNSA sites. However, as far as we can tell, there is nothing in the DSWEIS that substantively deals with shipments of special nuclear materials to LANL from other sites. A new DSWEIS should not only correct this, but also analyze the related serious issues. **Is LANL becoming the *de facto* permanent site for the processing, manufacturing and storage of nuclear weapons plutonium?**

For the sake of discussion, assuming that 5 kilograms of plutonium could be recovered per dismantled pit, up to 500 dismantled pits per year gives a theoretical maximum of 2,500 kilograms of recovered plutonium per year, or 12,500 kilograms over the SWEIS’ 5-year planning horizon. Under this theoretical extreme it is not long before the stated storage capacity under expanded operations of 6.6 metric tons for special nuclear materials could be exceeded. Doesn’t this prejudice future deliberations under the pending Complex 2030 PEIS, helping to predetermine that LANL will become the nation’s designated consolidated plutonium center for nuclear weapons design and production?

The DSWEIS makes clear that LANL’s Pu-238 operations will be retained. It does nothing to resolve the serious occupational exposures from those operations, which a new DSWEIS should address. Additionally it was proposed those operations be consolidated at the Idaho National Laboratory (INL), although it was never clearly stated that plutonium-238 operations would completely end at LANL. Is the proposed consolidation at INL now dead? Alternatively, could the plutonium-238 operations at LANL’s plutonium pit production facility be transferred to the Lab’s proposed Radiological Sciences Institute, thereby increasing production floor space at the plutonium pit production facility?

In our scoping comments we stated:

¹³ Complex 2030, A Preferred Infrastructure Planning Scenario for the Nuclear Weapons Complex, NNSA viewgraphs, May 2006, slide 17.

In particular, the new SWEIS or S-SWEIS should analyze the effects of unstabilized nuclear materials. In August 2004 report, the DOE IG stated that LANL has not completed or accelerated the stabilization of fissionable and other radioactive material at Los Alamos. Rather, it has extended the completion schedule until 2010. Furthermore, the Department has missed interim milestones and project tasks that are likely to further impact the schedule. Workers could be exposed to radiation, resulting in serious health consequences. In addition, the lack of stabilization could pose increased risks to the public. We suggest that the stabilization of nuclear materials at LANL should be given the highest priority, and be given such priority in a new or supplemental SWEIS.

The DSWEIS failed to do so in any serious fashion. A new DSWEIS must analyze the effects of unstabilized nuclear materials and/or their improper or deteriorating packaging and storage, which have already have led to serious occupational exposures, and which the DNFSB has repeatedly noted. Workers could be exposed to future contamination incidences and the public subject to increasing risks. **The stabilization of nuclear materials and their safe packaging and storage should be prioritized as a top Laboratory mission**, and a new DSWEIS should reflect that.

The Institute for Energy and Environmental Research, Concerned Citizens for Nuclear Safety and Nuclear Watch New Mexico have repeatedly raised the issue, including in scoping comment, of discrepancies between LANL's plutonium accounting systems that resulted in up to a 600 kilogram difference. The DSWEIS rejected discussion of this issue, which a new DSWEIS should correct. How is it reasonable to dramatically expand both plutonium operations and storage capacities at the Lab when such serious questions remain over such a large amount of an extremely expensive, dangerous and sensitive material?

The Reliable Replacement Warhead

Contrary to public scoping comment NNSA refuses to discuss the so-called Reliable Replacement Warhead (RRW) Program in the Site Wide EIS. Under the RRW Program, NNSA is already designing and plans to produce new-design nuclear weapons that purportedly would be more "reliable" in long-term performance and easier and less costly to manufacture. The absolute centrality of the RRW Program to "Purpose and Need for Agency Action" under this DSWEIS is illustrated by a 2005 Tri-Lab study that waxed enthusiastic over how the RRW Program is the "enabler" for transforming the nuclear weapons complex and the deployed nuclear weapons stockpile. The NNSA Deputy Administrator for Defense Programs testified that the "enabler for transformation [of the nuclear weapons complex] is our concept for the RRW."¹⁴ The DSWEIS itself references the report *Recommendations for the Nuclear Weapons Complex of the Future* by the Secretary of Energy Advisory Board, which recommended further consolidation of the complex that RRW would make possible.

Nevertheless, the DSWEIS rejected consideration of those recommendations because:

In the short term, over the next 5 years, LANL operations are not expected to change dramatically regardless of the strategy NNSA develops for continuing the transformation of the nuclear weapons complex. However, in recognition of the uncertainties associated with future work assignments to LANL, the "foreseeable future" for the purposes of proposed actions in this SWEIS has been changed from the 10 years of LANL operations considered

14 Statement of Thomas P. D'Agostino, Deputy Administrator for Defense Programs, NNSA, House Armed Services Committee Subcommittee on Strategic Forces, April 5, 2006.

in the *1999 SWEIS* to consideration of proposals regarding LANL operations over the next 5 years.
DSWEIS, p. S-4.

But operations at LANL are changing dramatically now because of RRW. Media reports have stated that weapons designers worked feverishly on the competitive Los Alamos RRW design that was submitted to NNSA. The NNSA FY07 Congressional Budget Request states:

Starting in FY 2008, with expected completion in FY 2012, the NNSA plans to increase LANL pit capacity from 10 pits per year to 30-40 pits per year within FYNSP [Future Years Nuclear Security Plan] funding. Limited pit manufacturing capacity will also be provided at LANL to support other pit manufacturing requirements (e.g., RRW)...

The outyear funding for pit manufacturing capability will demonstrate, with a goal of 2009, the manufacturing processes necessary to manufacture other stockpile pits, including RRW. By 2012, the program will manufacture other RRW pits using improved equipment and processes. Outyear funding will ensure the development of pit manufacturing processes and equipment that can be used to increase capacity at LANL or at a long-term pit manufacturing facility.

By 2012, manufacture initial pit EDUs for reliable replacement pits...
FY 2007 will initiate an acceleration of increasing pit manufacturing capacity at LANL. Additional personnel will be hired and additional equipment procured to support manufacture of existing pit types (or a RRW pit).

FY 2007 funding will be used to ensure progress in development of manufacturing processes for replacement pits currently in the stockpile or replacement pits with the manufacture of engineering demonstration units by the end of FY 2012. By 2010, manufacture certifiable RRW pits using the necessary equipment and processes being developed...

Additional funding of \$13,222 initiates work to increase pit manufacturing capacity to support existing pit types (or RRW pit)...

Technology development activities are focused on sustaining interim manufacturing at LANL, achieving a flexible, long-term capability to manufacture pits other than the W88, and addressing the manufacturing process requirements for RRW pits.¹⁵ [All parens in the original.]

The FY06 LANL Ten Year Comprehensive Site Plan states:

If the RRW mission is assigned to the Laboratory, a significant development and manufacturing program would be anticipated... The Laboratory, through existing capabilities and planned nuclear facility consolidation and construction activities, has established a stable weapons infrastructure and is poised to provide additional capacity for

¹⁵ Weapons Activities/ Pit Manufacturing and Certification Campaign, NNSA, FY 2007 Congressional Budget Request, Volume 1, pp. 188 to 191.

expanded pit production missions (for an accelerated RRW or current warheads) over the long-term.¹⁶ [Parenthetical in the original.]

The irony is that this DSWEIS was prompted by and is driven by the NNSA's desire to begin producing RRW plutonium pits. We contend that is really what it is all about. A NNSA viewgraph notes the goal of:

Complete the consolidated plutonium center with a capacity to support 125 RRW war reserve pits per year by 2022. *Upgrade PF-4 to support an interim production rate of 30 to 50 RRW war reserve pits/year by 2012.*¹⁷

By our logic, NNSA knew that it was compelled to prepare a completely new SWEIS because of its newly stated intent to produce 50 certified plutonium pits per year at LANL. Now it turns out that 30-50 of those 50 certified pits are to be RRW pits. Therefore, it is obvious to us that the DSWEIS is really about producing RRW pits, and the rest is merely poorly done window dressing toward that end. Therefore, we assert that it is absolutely central to any credible LANL Site-Wide Environmental Impact Statement for Continued Operations that there must be full discussion of the Reliable Replacement Warhead Program. A new DSWEIS should correct this serious omission.

Ironically, U.S. nuclear weapons have already been proven reliable through extensive full-scale testing and subsequent certification by the three Lab directors ever since the testing moratorium began in 1992. To introduce new, untested designs will undermine stockpile confidence and could well lead to resumed full-scale testing in the future, which would have disastrous non-proliferation implications. Further, RRW is likely a Trojan Horse whose real purpose is to introduce new-design nuclear weapons with different military characteristics for new purposes, again with potentially disastrous nonproliferation implications. Finally, RRW is becoming a means unto itself, justifying the resurgence and revitalization of the nuclear weapons complex when it should be ramping down under the framework of the NonProliferation Treaty. For all of these reasons and more, Nuclear Watch strongly opposes the RRW Program. A new draft SWEIS should fully analyze the programmatic, infrastructure, production and nonproliferation implications of the Program.

A 9/11/06 LANL press release describes:

The expanding fireball from the September 6 RRW hydrotest is depicted at the DARHT firing point a fraction of a second after detonation. The Reliable Replacement Warhead Project conducted its first fully integrated high-explosives experiment last week, a hydrotest shot at the Dual Axis Hydrodynamic Test facility that produced a very high-quality radiograph and excellent additional data...

Hydrodynamic experiments at DARHT and subcritical experiments in Nevada, small-scale experiments, and computer simulations, are the three-tiers of stockpile stewardship at Los

16 FY06 LANL Ten Year Comprehensive Site Plan, pp. 3-15 to 3-16. The Plan was obtained by Nuclear Watch New Mexico (NWNM) through litigation under the Freedom of Information Act.

17 Complex 2030, A Preferred Infrastructure Planning Scenario for the Nuclear Weapons Complex, NNSA viewgraphs, May 2006, slide 17. Emphasis added.

Alamos, assuring the safety and reliability of the U.S. nuclear deterrent without a return to underground testing.¹⁸

This is crazy. First, Los Alamos is abysmally behind in its hydrotesting program that is suppose to “baseline” the existing U.S. nuclear weapons stockpile for the purpose of ensuring safety and reliability. As one example:

...Los Alamos was to conduct a total of 15 hydrotests in Fiscal Years 2002 through 2004. Of the scheduled tests, nine experienced delays of up to two years, including three tests which had yet to be performed at the time of our audit. Further, we found that Los Alamos may not have the capacity to meet future hydrotest needs... Without critical hydrotest data, scientists lose one of their most important tools for evaluating, among other things, the performance of key weapons components and the reliability of the stockpile.¹⁹

In our view, the import of this is clear. In its headlong rush to design and produce new-design nuclear weapons under the Reliable Replacement Warhead Program, LANL is willing to sacrifice concerns about the safety and reliability of the U.S. nuclear weapons stockpile, which for the sake of emphasis is the Lab’s declared reason for being, in order to push through new speculative designs that may or may not need full-scale testing in the future. Should RRW designs be full-scale tested in the future, that would assuredly have very serious nonproliferation consequences. Moreover, given that LANL is now in intense competition with Lawrence Livermore National Laboratory for NNSA selection of the first RRW design, its smacks of heavy self-interest for the Lab to have conducted a RRW hydrotest shot while it is behind in other tests meant to ensure stockpile safety and reliability.

In the FY06 LANL Ten Year Comprehensive Site Plan the Lab admits:

The fast paced weapon design, test and delivery “schedule” during the Cold War forced the Laboratory and DOE to use resources for meeting near-term deliverables, while strategic investments were often deferred and key facilities allowed to decay. The Laboratory also avoided helpful planning tools like formalized project management in the race to field weapons systems as quickly as possible. P. 3-21.

Is this *déjà vu* all over again? Only this time there is a race to field new designs under the speculative Reliable Replacement Warhead Program while efforts to guarantee the safety and reliability of the existing stockpile may suffer as a result? Additionally, the DSWEIS does not offer “helpful planning tools like formalized project management”, and in fact seems to avoid them.

The NNSA Complex 2030 viewgraphs state as a goal:

18 “Reliable replacement warhead hydrotest yields valuable data”, LANL Press Release, September 11, 2006; a Quick Time video is archived at <http://www.lanl.gov/news/index.php>, showing poor environmental containment of the blast.

19 “The Los Alamos National Laboratory Hydrodynamic Test Program”, DOE Inspector General, DOE/IG-0699, September 2005.

Improve the capability to design, develop, certify, and complete production of new or adapted warheads in the event of new military requirements. Produce required quantities of warheads in time to meet military requirements.²⁰

We take this as concrete evidence that the real purpose of the Reliable Replacement Warhead Program is to enable the design and production of new-design nuclear weapons, as directed by the Bush Administration's 2001 Nuclear Posture Review.²¹ This is in contrast to the repeated justifications for the continuing existence of the nuclear weapons complex so that the safety and reliability of the U.S. nuclear weapons stockpile can be guaranteed. We believe it is highly dissembling for this DSWEIS to intentionally avoid discussion of the Reliable Replacement Warhead Program, which a new DSWEIS should correct.

The Dual-Axis Radiographic Hydrotest Facility

Quotes from the DWEIS in this section are italicized.

The DARHT [Dual-Axis Radiographic Hydrotest Facility] facility began commissioning operations of its first axis in fiscal year 2001. The load level is about 1 megawatt for the first axis. The second axis became operational in late fiscal year 2004 adding about 2 megawatts of load (LANL 2005g). DSWEIS, p. 4-123. This is a falsehood. It is well documented that DARHT's second axis has been mired in technical difficulties that the Lab at first apparently intentionally refrained from informing NNSA. In fact, the problems have been so severe that funding for remedial actions is now a dedicated \$89.9 million line item in the NNSA's FY07 Congressional Budget Request called the "DARHT 2nd Axis Recovery and Commissioning Project." Please explain the "12 steps" involved in this recovery program. More fundamentally, the quoted statement is yet another example of the deficiencies in this DSWEIS.

This is on top of past repeated claims by the Lab that the DARHT project was on schedule and on budget. However, that was shown to be false in a 2003 DOE Inspector General audit report, which stated:

The audit disclosed that DARHT will not be complete before June 2004, 15 months behind schedule. In addition, scope changes have reduced or eliminated work elements; critical activities had been shifted to other programs; and, at least two activities that were part of the original scope of work are being completed with non-project funds. These activities gave the erroneous appearance that total project costs had remained within planned budget.²²

The audit report further found that DARHT had grown from its original cost of \$30 million in the 1980's to \$270 million, not including the \$57.5 million in DARHT costs that were shifted to other LANL programs. In combination with the above 2nd axis recovery costs, DARHT will cost something on the order of \$400 million or above and will not be fully ready until 2008. This whole sad story is indicative of the way that business is done at the Lab, with inadequate quality assurance and the squandering of taxpayers' money, following bad national policy. The DSWEIS not only does nothing to correct this, but also sets the stage for yet more of the same for nuclear weapons facilities that are not really needed and

20 Complex 2030, A Preferred Infrastructure Planning Scenario for the Nuclear Weapons Complex, NNSA viewgraphs, May 2006, slide 21.

21 For excerpts of the NPR see <http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm>, and Nuclear Watch commentary at <http://www.nukewatch.org/watchdawg/newsletters/nprbulletin.pdf>

22 "Dual Axis Radiographic Hydrodynamic Testing Facility", DOE IG-0599, May 2003.

may harm our long-term national security by encouraging nuclear weapons proliferation through the combined example they set.

In July 1999, with the appropriate DOE authorization, the DARHT Project Office initiated DARHT facility (a High Explosive Facility) operations on the DARHT first axis. In late fall of 2000, the first major hydrotest using the DARHT first axis was completed and testing has continued. DSWEIS, p. 4-82.

Nuclear Watch New Mexico is prepared to analyze the effects of DARHT not meeting its Phased Containment Option chosen in the 1995 Record of Decision for the DARHT EIS. In the Fall of 2006, six years after the first axis came online, the tests were required to be 40% contained. We calculated this was not reasonably foreseeable. Annual releases of depleted uranium would range from 450 pounds to 1,460 pounds per year under the Phased Containment Option. But the DSWEIS states:

The increased use of foam and vessels for high explosives testing under all of the alternatives could further reduce air pollutant emissions, such as beryllium and depleted uranium, from these activities. The use of foam has been shown to reduce emissions by 50 to more than 80 percent (LANL 2006). The use of vessels for certain tests could reduce emissions by close to 100 percent. DSWEIS, p. 5-209.

The referenced 50 to 80% reduction in plume containment is a great start. The DU containment was only 30% on one shot and containment of other materials was not mentioned. The DSWEIS must state if all shots now use foam, what the releases of other contaminants are and if the releases are above 40%. Please analyze the impacts of contaminated foam generated from these tests. This foam was not mentioned in the 1999 SWEIS. What is its disposal path?

As a matter of policy, dynamic experiments involving plutonium would be conducted inside containment vessels. DWEIS, p. 3-26. As a matter of reality, are all plutonium tests conducted inside vessels?

This section provides information and data that supports the radiological and chemical impacts of facility accidents for each alternative presented in Chapter 5. It includes the accident frequency of occurrence and impacts, scenarios, material at risk, source terms and factors used in the calculation of source terms. These scenarios represent potential accidents at individual facilities. DSWEIS, p. D-2.

DARHT was not analyzed in Table D-1 because it was declared to be a “non-nuclear” facility. But the DARHT Record of Decision informs us that:

Under the accident scenarios examined, an unexpected high explosives detonation would result in 15 fatalities (all personnel present) at the facility under all alternatives analyzed. No additional latent cancer fatalities would be expected over 50 years among members of the general public from accidental release of depleted uranium under any of the alternatives. Between 5 and 12 additional latent cancer fatalities could occur from the accidental release of vaporized plutonium. DARHT Record of Decision, October 1995.

Therefore a new DSWEIS must consider the consequences of vaporized plutonium from an accident at DARHT as part of “radiological accidents.”

The Risks of Potential Terrorist Acts

The DSWEIS rejected any consideration of the adverse effects of potential terrorist acts at the Lab. However, in the recent Federal 9th District decision on “San Luis Obispo Mothers for Peace v. Nuclear Regulatory Commission” a court found that the NRC erred in determining that the National Environmental Policy Act does not require the agency to consider the potential impacts of terrorist attacks at nuclear facilities. The NRC had denied Mothers for Peace its attempts to introduce terrorism as a concern under NEPA for four reasons: (1) terrorist attacks were considered too speculative; (2) the risk of terrorist attacks can’t be determined, rendering analysis meaningless; (3) NEPA does not require “worst-case” analyses; and (4) NEPA’s public process is not an appropriate forum for security issues.

In response, the Court determined that the possibility of terrorist attacks is not so “remote and highly speculative” and that their probability need not be precisely quantifiable in order for its potential environmental impacts to be considered. The Court also found that NEPA does require analysis of potential catastrophes, even if their probability is low. Finally, the Court held that “[t]here is no support for the use of security concerns as an excuse from NEPA’s requirements” and that allowing a “security exemption” from NEPA would be inconsistent with the Act’s purpose to ensure that the public can contribute to the body of information being considered by the agency.

NNSA should follow that judicial decision and fully analyze and consider the effects of potential terrorist acts at the Los Alamos National Laboratory in a new DSWEIS.

Quality Assurance

DSWEIS Chapter 6 lists “Applicable Laws, Regulations, and Other Requirements”, including:

DOE Order 414.1C, *Quality Assurance (June 17, 2005)*—The objectives of this Order are to ensure that DOE, including NNSA, products and services meet or exceed customers’ expectations and to achieve quality assurance for all work based upon the following principles:

- That quality is assured and maintained through a single, integrated, effective quality assurance program (management system);
- That management support for planning, organization, resources, direction, and control is essential to quality assurance;
- That performance and quality improvement require thorough, rigorous assessment and corrective action;
- That workers are responsible for achieving and maintaining quality; and
- That environmental, safety, and health risks and impacts associated with work processes can be minimized while maximizing reliability and performance of work products.

DSWEIS, p. 6-19 & 20.

Nuclear Watch New Mexico believes that many of the problems and so-called scandals that have plagued LANL over the last decade could have been avoided had there been a rigorous “single, integrated, effective quality assurance program.” Yet quality assurance is mentioned only in passing in the DSWEIS - - there is no substantive discussion of a formalized program that should pervade all Laboratory activities, better protect the environment and conserve taxpayers’ dollars. A new DSWEIS should not only seriously discuss such a program but also propose how to exponentially improve quality assurance at LANL.

Nuclear Safety at the Los Alamos National Laboratory

1) For TA-55 the accidents analyzed involved a container breach, 2.5 rem to the Maximally Exposed Individual (MEI, a hypothetical member of the public who would receive the largest dose), and a release due to an ion exchange column rupture (1.28 rem to the MEI). Both accidents assumed a Facility Leak Path Factor (the fraction of material that escapes the building in an accident) of 1 and involve less than 10,000 grams total. The TA-55 facility allows 0.5 kg of ²³⁸Pu per glovebox (this is the equivalent of about 119,000 grams of equivalent ²³⁹Pu per glovebox). Assuming each lab allows something like 2,000 grams of ²³⁸ in it, in the 200 area this would equate to about 476,000 grams of equivalent ²³⁹Pu per laboratory available in a release during an accident like a fire or explosion. Expanded work at TA-55 would be expected to INCREASE the accident “Material At Risk” (MAR) in the 100, 300, and 400 areas resulting in larger dose consequences.

A facility fire in the TA-55 PF-4 facility in the 200 or 300 areas (300 area stores a lot of ²³⁹ Pu for operations) is not even analyzed as a bounding event in the Draft SWEIS and would give much larger doses to the public MEI. Scaling the doses (at least a factor of 50) would yield doses in the 65 rem to 125 rem range for the fire and possibly more. Even the CMR HEPA filter fire (involving less than about 20 grams of ²³⁹Pu equivalent) gave doses to the MEI of about 0.77 rem. Analyzing the CMR HEPA filter fire in place of a TA-55 fire is nonsensical but does show that the TA-55 fire would involve large doses to the MEI. The choice of accidents in the Draft SWEIS was not prudent and cannot be defended. The Draft SWEIS did not adequately address the suite of accidents necessary to quantify the differential risks among the three alternatives.

MEI doses due to seismic “Scenario 2” at TA-55-PF-185, MAR 48.9 kg, are given in the Draft SWEIS as 5.98 rem. The seismic source term in TA-55, PF-4 is on the order of many metric tons of Pu-239 equivalent including powders, liquids, solids, etc. (factors on the order of 50-200 larger for the MAR). Yet the seismic doses for the MEI are given in table D-16 as only 4.21 rem. This is not consistent and is not defensible. Comparing the doses from PF-185 to the TA-55 MAR should give on the order (50-200) x 5.98 = 300 rem to 1200 rem to the MEI.

2) For the Material Disposal Area B Fire, the MEI dose at 45 meters is given as 1.26 rem and the 100 meter worker dose is given as 0.280 rem. The MACCS 2 Code Manual as well as the input parameters for Tamor and Gur, as were used for the draft EIS, state that the dispersion parameters range of applicability is 0.5 to 5.0 km. 0.5 km is 500 meters. According to The Workbook of Atmospheric Dispersion Estimates (Turner), the sigma-y function (Table 2.3) is undefined at very low ranges near zero. All of the nomograms (graphs) start at 100 meters because at very close distances transport phenomena dominate rather than diffusion/dispersion phenomena. Therefore, calculation of the MEI dose using MACCS 2 as was done in the Draft SWEIS at 45 meters cannot be defended and is invalid.

3) After more than 100 million dollars in upgrades to the old Chemistry and Metallurgy Research Building (CMR), NNSA decided to abandon the project after a seismic fault trace was found under the facility. NNSA then decided to build a “Chemistry and Metallurgy Research Replacement Project” (CMRR) at TA-55, now under construction. Table D-1 of the Draft SWEIS entitled “Evaluation of Accident Data from the 1999 SWEIS” states that the “CMRR doses are bounded by CMR” and that “DOE 2003a [2003 Final EIS for the CMRR] considered accidents from both CMR (no action) and the replacement facility, CMRR (preferred action). The results (Tables C-3 and C-5 of that document) show that CMRR accident risks are bounded by those of CMR. Therefore, the latter is analyzed here.”

It is very hard to envision how a maximum facility “Materials At Risk” or MAR allowed in CMR on the order of 20 kg is bounded by the 6 metric tons of Pu-239 equivalent that will be allowed in the

new CMRR, several hundred kgs of which will be allowed out in CMRR for operations. In fact, the quoted statement is so wrong that it cannot be fathomed or defended. The accident doses for the CMRR Maximally Exposed Individual (MEI) will greatly outstrip (by orders of magnitude) the doses of CMR for accidents to the MEI. This patently wrong statement invalidates the Draft SWEIS for comparison among the 3 alternatives.

4) Table D-1 states that the Decontamination and Volume Reduction System (DVRS) glovebox is nominally a seismic Performance Category-2 system. (“DVRS glovebox processing campaign added (DOE 2004b) Nominally PC-2.”). This is not correct. It was discovered that the DVRS facility was built over a waste pit for which no soil constants are known (this is captured in the NNSA Safety Evaluation Report which approves the Safety Analysis for DVRS). The facility cannot be credited even to PC-1 and also had not been shown to even meet the requirements for seismic design of an office building per Executive Order 12699. It should also be noted that it has been shown that the Nuclear Hazard Category 2 Radioactive Assay and Nondestructive Test Facility (RANT), which should be seismically robust enough to withstand a PC-3 seismic event, is also not even structurally sound to a below PC-1 event and, like DVRS, falls far short of nuclear safety seismic standards (this is the subject of an Unreviewed Safety Question and Occurrence Report). The releases would potentially occur for rather small earthquakes because there is no NNSA or LANL enforced plan to upgrade either facility. Therefore, neither DVRS nor RANT should be operating at this time or be used under any of the DSWEIS alternatives.

In a similar vein, occurrence reports exist which show that the Safety Class domes at TA-54 Area G for transuranic waste storage have never been properly maintained and have consequently degraded to the point that they cannot perform their safety class function. In a seismic event, the rotted fabric of the domes will not hold the dome ribs together as a seismic system. There is no NNSA plan to repair these domes. Therefore, the risk during a low threshold seismic event would be large. This is not captured in the DSWEIS risk alternatives. DSWEIS page H-68 states “the Hazard Category and Performance Assessment would need to be upgraded to Hazard Category 2 and Performance Category 3 for the Decontamination and Volume Reduction System; Waste Characterization, Reduction, and Repackaging facility; and modular units.” Since DVRS was built over a waste pit for which no soil constants are known, how is it even possible to consider upgrading it to PC-3 structurally?

5) The DSWEIS states that almost none of the LANL nonnuclear or radiological or chemical facilities have been officially categorized and it is uncertain of the inventories in the shops of chemicals like beryllium. Since this is the case, how is it possible to defensibly differentiate among the three alternatives from a DSWEIS risk perspective?

6) A lot of the information from which the DSWEIS was derived was taken from LANL Safety Analyses. The Defense Nuclear Facilities Safety Board (DNFSB) has repeatedly identified in its weekly LANL reports that the safety analyses, which were good when developed, have not been maintained and are now obsolete. How is it possible to defend the DSWEIS when the information upon which it is based was extracted from obsolete Safety Analyses as per the DNFSB Site Representatives weekly reports that are on the web?

7) Throughout the DSWEIS statements are made about safety risk mitigation at TA-50, LANSCE, TA-55, etc., applicable to the various alternatives like: “Potential worker exposure to radiological contamination and asbestos during DD&D. Impacts would be mitigated through safe work practices, procedures, and personal protective equipment.” And for “Human Health”:

“Temporary construction- and DD&D-related impacts and accident potential for workers. Impacts would be mitigated through safe work practices, procedures, and personal protective equipment.” And, “Operations impacts may increase as a result of increased accelerator usage. However, the maximum dose to the MEI as a result of emissions would be limited to 7.5 millirem per year.” “Operations would involve high radiation fields. Worker health would be protected by facility design, radiation control procedures, and personal protective equipment.”

*“DD&D Impacts—*Under this option, workers could be exposed to radiologically or chemically contaminated materials during demolition activities. Worker risks would be mitigated by use of personal protective equipment and preestablished safety procedures. Based on an estimated 60,000 person-hours and construction accident rates, one to three recordable injuries could be expected to occur from DD&D (DOE 2004, BLS 2003).”

“If mitigation measures are needed for potential sealed source accidents, they would include placing sealed sources in locations where they would not be susceptible to damage from an aircraft crash, fire, or seismic event (kept underground like strontium-90 at TA-54). Another potential mitigation measure might include the use of lower limits for maximum allowable source radioisotope activity in shipping containers, the TA-54 dome, and Wing 9 of the CMR Building. Storage containers that can be shown to maintain their integrity under fire, crash, and seismic event loads also would mitigate the consequences of these potential accidents.”

In short, safety risk mitigation is claimed throughout the DSWEIS document as a means of justifying the acceptability of various alternatives. However, there are numerous DNFSB weekly reports on the web written by the DNFSB Site Representative as well as many occurrence reports and even recent assessments of the NNSA Los Alamos Site Office (LASO) that show safety controls at LANL are systemically not working. One reason that they are not working is because they have never been adequately verified as operational through required independent and qualified oversight by federal personnel or the contractor.

Moreover, the DNFSB has repeatedly raised alarms over how federal oversight of LANL (i.e., NNSA’s) is dramatically deteriorating. This is compounded by the fact that even though “this is a significant risk based on the past performance of the Laboratory”, the NNSA Administrator has ordered the LASO Manager to grant even more self-oversight to the LANL management contractor.²³ This flies in the face of the serious operational safety challenges that the Laboratory has still not resolved, despite a half-year standdown to Lab operations that cost American taxpayers at least \$365 million.

Incredibly, NNSA grants this greater contractor self-oversight even as it is fully aware of the safety problems at LANL. As made clear below, the agency at the highest levels is fully aware that Lab safety controls are inadequate:

SUBJECT: Verification of Implementation of Safety Controls at Los Alamos National Laboratory

23 Memorandum from Linton Brooks, NNSA Administrator, to Edwin Wilmot, LASO Manager, undated (circa April 2006), http://www.nukewatch.org/facts/nwd/LASO-Brooks_B_Oversight.pdf

Purpose: The Chief of Defense Nuclear Safety (CDNS) conducted a review at the Los Alamos Site Office (LASO) from June 21-23, 2005, to evaluate the processes used to identify, track, and verify implementation of controls necessary to ensure the safe operation of hazardous nuclear facilities at the Los Alamos National Laboratory (LANL). The review was conducted in response to concerns raised by members of the LASO staff about the implementation of controls at LANL and specifically about LASO efforts to verify implementation of safety controls.

Summary: LASO currently does not have an adequate system to identify and track the status of safety controls important for each nuclear facility at LANL. Without such a system it is difficult to conclude the state of implementation of the controls or to hold LANL accountable for performing as required.

The LASO system needs improvement in three areas: 1) identification of applicable controls and requirements; 2) initial implementation of controls and requirements once approved; and, 3) periodic reverification to maintain confidence that controls are effective...

Using only LASO systems and information it is difficult to determine the complete set of controls relied upon for the safe operation of the nuclear facilities at LANL or determine the status of implementation... The current process by which LASO verifies LANL's implementation of controls is ad hoc and does not take advantage of the work and evidence required of the laboratory or ensure that LASO holds the laboratory accountable for fulfilling its requirements in a quality manner. The current guidance to FRs [facility representatives] is not specific enough to ensure that TSR [nuclear Technical Safety Requirements] level controls will be verified as implemented on a continuing basis. The NNSA Line Oversight program for LANL needs to be strengthened to resolve this issue.

24

Table D-5 gives a "Criticality Scenario" which states:

SHEBA [Solution High-Energy Burst Assembly] (TA-18) criticality considered in DOE 2002a [a DSWEIS reference document] and risks to the public and non-involved workers shown (Table C-5 of that document) to be inconsequential and bounded by the SHEBA Hydrogen Detonation scenario analyzed in this SWEIS. Criticality scenario impacts are short range and affect involved workers only.

First, this passage apparently mistakenly references "DOE 2002a", which in DSWEIS Chapter 7 "References" is listed as *Natural Phenomena Hazard Design and Evaluation Criteria for Department of Energy Facilities*. That document's Table C-5 is "Elastic Response to Reference 1.0g NUREG/CR-0098 Spectrum (7% damping)" related to the seismic probabilities of individual buildings. It in no way supports the assertion that risks associated with SHEBA criticality experiments are "inconsequential", hence there is no basis for the DSWEIS's assurances. To the contrary, the DNFSB has repeatedly stated that there are potentially very serious offsite consequences that could result from the systemic safety problems with criticality experiments at TA-18, including SHEBA, as follows:

24 MEMORANDUM FOR: Linton Brooks, Administrator, NNSA, FROM: James J. McConnell, Chief of Defense Nuclear Safety, NNSA, July 1, 2005.

Recent federal oversight at TA-18 has been minimal... The accident scenario for SHEBA indicates that the off-site consequences for an accident involving a \$2.40 reactivity insertion while operating with a postulated 700 gram plutonium sample can reach nearly 700 rem cumulative dose equivalent; essentially all of this amount is from vaporization of the sample. The \$2.40 limit is specified in the technical Safety Requirements for TA-18, but LANL personnel have reported that it is physically possible to insert up to \$3.40 excess reactivity... Therefore the seven COAs [conditions of approvals] shown below remain open:... Evaluate the potential direct radiation hazard to members of the public on Pajarito Road during SHEBA burst operations.²⁵

As another example, the DSWEIS states:

For purposes of analysis, potential bounding accident scenarios were assessed for an aircraft crash with fire at Area G at TA-54, and a seismic event with fire at Wing 9 of the Chemistry and Metallurgy Research Building. Consequences of the Wing 9 event were also calculated for a release emanating from TA-48 because the Radiological Sciences Institute that would be built in TA-48 would provide a replacement for the Chemistry and Metallurgy Research Building Wing 9 hot cell. None of these accidents would result in a fatal dose to the noninvolved worker, the MEI, or the population within a 50-mile (80-kilometer) radius. The highest LCF risk to the population would result from the Wing 9 of the Chemistry and Metallurgy Research Building accident with consequences calculated at TA-3. This postulated accident could result in an increase in LCF risk of approximately 1 chance in 6 million for the noninvolved worker, 1 chance in 70 million for the MEI, and 1 chance in 600 for the population within a 50-mile (80-kilometer) radius. DSWEIS S-90 & 91.

First we note that the affected 50-mile is arbitrary, depending on where the center is on Laboratory property. If located at TA-21, the 100-mile diameter circle would have a population base of 271,600 and if at TA-16 404,900 people. DSWEIS D-17. If that radius was extended a mere 10 miles, it would capture to the south Rio Rancho and parts of Albuquerque, adding perhaps another 400,000 people. For prudence's sake a new DSWEIS should use a 60-mile radius in its affected population calculations centered mid-way north to south on the TA-15/TA-36 border, which given LANL's irregular shape is somewhat of a geographic center.

As to the issues, the DNSFB has repeatedly stated that there are four accident scenarios with more serious consequences than the CMR Wing 9 fire, in order:

1. An airplane crash into high-activity transuranic waste drums at TA-54, potentially resulting in a 1,800 rem offsite dose;
2. A runaway criticality experiment at TA-18, potentially resulting in a 1,100 rem offsite dose;
3. A Pu-238 room fire at TA-55, potentially resulting in an 800 rem offsite dose; and
4. A fire and/or seismic event at the RANT facility, potentially resulting in a 500 rem offsite dose.²⁶

The Safety Board calculates a potential dose of a "mere" 200 rem with a CMR fire. Thus it seems that the DSWEIS intentionally avoids risk analysis of the most severe and highest consequence accidents, which a new DSWEIS should correct.

²⁵ DNFSB Staff Issue Report, March 24, 2004. All DNFSB Staff Issue Reports and Weekly Reports are archived at http://www.dnfsb.gov/pub_docs/lanl/wr_la.html

²⁶ DNFSB Staff Issue Report, May 3, 2004, "Status of Safety Bases at LANL."

On an interesting tangent, it is instructive how the DNFSB came to be aware of the high potential doses in the worst scenario, that being from a TA-54 Area G safety analysis completed by the NNSA Los Alamos Site Office's senior nuclear safety analyst, excerpted below:

During the review it was discovered that major modifications to the Area G TSRs were required before they could be approved. Issues included safety controls that were missing from the TSRs... *A root cause to the lack of a full quality review is the fact that NNSA personnel were told by LANL personnel that LANL has no fully qualified Safety Analysts...* The lack of this full quality/independent review has resulted in a DSA and TSRs submitted to NNSA that were lacking in quality and should have been rejected per LANL's and NNSA's criteria... the previous TA-54, Area G Site Safety Basis, approved in 1995 by the DOE Albuquerque Operations Office, *either underestimated the offsite doses due to postulated bounding accidents or did not evaluate the accidents altogether...* The 1995 safety basis stated that the highest postulated dose to the public to be 12 rem, while the more rigorous current analysis reveals bounding offsite doses in the several hundred to thousand rem ranges to the public... *Characterization of MAR [Material at Risk] is still not well understood by the Laboratory...* In this DSA, the Laboratory failed to include all MAR in developing accidents for analysis... *it is clear there is a lack of safety systems employed at TA-54 Area G...* There were numerous issues in the DSA and TSRs that had to do with the *miscalculations, misstatements, use of incorrect values, etc., that detract from the quality of the document...* again, this is indicative of inadequate QA [Quality Assurance] and lax independent review of the document.²⁷

In 2006, as reported in the media, this NNSA LASO senior nuclear safety analyst was transferred from his position over his objections. This is particularly telling in light of the presently diminishing NNSA oversight at LANL and the greater degree of self-oversight being granted to the new management contractor. A new DSWEIS should rigorously examine how the declining safety culture and lack of qualified analysts, both with NNSA LASO and LANL, could impact operations and potentially increase impacts to public/occupational health and the environment.

Inadequate safety measures are endemic to the Laboratory. As the Defense Nuclear Facilities Safety Board (DNFSB) noted:

“Section 202 of 10 CFR Part 830 [DOE Nuclear Safety Management Regulations] requires that safety bases be reviewed and that any required updates be proposed and approved once per year: however, *this has rarely occurred for LANL nuclear facilities...* LANL currently has 26 nuclear facilities, including 17 that are HC [nuclear Hazard Category]-2 and that have a number of safety bases issues.”²⁸

Authorization Basis (AB): High quality safety bases are needed to provide reasonable assurance that nuclear facilities can operate safely in a manner that adequately protects workers, the public, and the environment, as required by the Nuclear Safety Management rule, 10 CFR 830... Overall, in spite of significant effort, *NNSA and LANL have been*

27 Final Documented Safety Analysis, Technical Area-54, Area G, November 10, 2003, <http://www.drivehq.com/file/ShowFolder.aspx?G=1&shareID=282266>, emphases added.

28 DNFSB Staff Issue Report, May 3, 2004, “Status of Safety Bases at LANL”, emphasis added.

unable to update a single AB [authorization basis] since the Board letter of May 27th, 2004 on this topic; 10 CFR 830 requires AB's be reviewed and updated annually.²⁹

LANL management has acknowledged a \$200M shortfall in its FY-07 budget (i.e., -10 %); the impact on necessary improvements to safety programs is uncertain. For example, the Operational Efficiency (OE) Project, which ends Oct Ist, identified that \$7.4M over 3 to 5 years is required to execute the OE-generated plan for technical baseline reconstitution of vital safety systems in nuclear facilities; FY-06 funding for this was \$0.2M. Similarly, the OE-related plan to systematically address about 600 institutional training issues identified during the last 3 years is estimated to cost \$44M and take 4 years; resolving these training issues appears fundamental to LANL improving other safety programs, such as work control, conduct of operations, and criticality safety. Currently, *neither LANL's priorities for these improvements nor NNSA's intentions to contractually incentivize the improvements is clear; their overall priority may be decreasing.*³⁰

*Based on its own staffing analyses, LASO suffers from an insufficient number of technically-qualified staff to perform nuclear safety oversight: only 4 of 8 LASO managers in senior technical safety manager (STSM) positions have STSM qualification; 3 of the 5 safety analysts are fully qualified, compared to about 15 needed per responsible LASO management... LASO has no full-time criticality safety expertise on site, which seems inconsistent with the scale of LANL fissile material operations. LASO has essentially no funding available this year for hiring or training staff and thereby beginning to alleviate this condition.*³¹

Authorization Basis (AB): *LANL now has about four dozen AB submittals at the NNSA Site Office for action, and LANL and NNSA are starting to lose track of them, including LANL's most recent recommendations for the TA-55 confinement strategy issue.*³²

Finally, the DNSFB has noted:

Plutonium Facility TA-55): The iTSRs [interim technical safety requirements] are supposed to be implemented July 31st, and without formal resolution and approval, the basis for continuing operation appears uncertain. Waste Operations:... RANT's [Radioactive Assay and Nondestructive Test Facility's] authorization to operate to the older TSRs expires July 31st, and RANT is not prepared to operate to the new TSRs... Since March 2005, NNSA has intended for RANT to receive seismic upgrades... Los Alamos Neutron Science Center (LANSCE): The current LANLSCE safety basis, now ~5 years old, expires Aug 31st, and using old data, the target inventory is predicted to exceed a radionuclide-specific safety basis limit on Aug 9th, necessitating shutdown... Management: LANS [Los Alamos National Security, LLC, the new contractor] recognized before Jun 1st the looming TA-55, RANT, and LANSCE deadlines. NNSA could have taken appropriate actions before Jun 1st, but NNSA's attention has been elsewhere. As a result of late awareness, NNSA has relinquished opportunities to exert federal authority

29 DNFSB Los Alamos Report for Week Ending August 20, 2004, emphasis added.

30 DNFSB Los Alamos Report for Week Ending August 4, 2006, emphasis added.

31 DNFSB Los Alamos Report for Week Ending March 10, 2006, emphasis added.

32 DNFSB Los Alamos Report for Week Ending May 19, 2006, emphasis added.

in these cases. *Collectively, these cases illustrate the slip in nuclear safety here in the last two years.*³³

These nuclear facilities and the others with chronic and longstanding problems with safety bases should cease operations until they are fixed. It is especially outrageous that these problems continue to persist despite the \$365 million standdown. All of this flies in the face of the DSWEIS's bland assertions that nuclear operations at the Lab are safe. A new DSWEIS must fully incorporate the full range of the DNFSB's safety concerns and then consider concrete steps that meet and resolve those concerns.

Safety risk mitigation is reputedly a cornerstone of the whole draft EIS analysis, but the safety controls (safety risk preventors and mitigators) are systematically corroded and broken from the fire suppression sprinklers at TA-55's plutonium pit production facility that were never inspected to the Safety Class domes at TA-54 Area G storing radioactive transuranic wastes to the Glovebox ventilation system at the Waste Characterization, Reduction and Repackaging Facility to the roof that may well cave in at RANT in a small seismic event (less than PC-1). Recent further examples are also included in the document release by the Project on Government Oversight on 9/12 of a \$1.1M fine of LANL for safety systems not working. This systemic safety problem has not been fixed. Since the risk mitigation arguments are central to the DSWEIS's analysis of the 3 alternatives, and the risk mitigations are systematically broken, then residual and differential risks among the 3 proposed alternatives are not understood and the DSWEIS is currently indefensible.

In sum, the DSWEIS's safety and potential accident analyses are woefully inadequate, even indefensible. On that basis alone, the DSWEIS should be redone. Furthermore, a new DSWEIS should vigorously defend and examine the potential safety impacts of the NNSA decision to grant the management contractor yet greater self-oversight. That decision is perverse, given the systemic, chronic and still unresolved safety failures that again cost American taxpayers at least 365 million dollars.

A Failure to Adequately Consider Accident Scenarios

In some instances, the DSWEIS treats potential accident scenarios in a very convoluted fashion that is nearly incomprehensible to the public. Our specific example here concerns DSWEIS Table D-1, "Evaluation of accident data from the 1999 LANL SWEIS." In it, the DSWEIS states that accident scenarios for the new Chemistry and Metallurgy Research Replacement Project is *bounded by those of the CMR [the old Chemistry and Metallurgy Research Building]. Therefore, the latter is analyzed here.* DSWEIS, p. D-5.

But the maximum risk accident from that document [the 2003 environmental impact statement for the CMRR] was selected to represent CMR. The scenario is called the CMR HEPA [high energy particulate arrestor] filter fire. DSWEIS, p. D-3. First we question whether that is appropriate, given that the CMRR will have up to 7.3 tons of inventoried special nuclear materials, which are clearly "Materials at Risk" for the purpose of calculating the consequences of potential accident scenarios. In contrast, it is explicitly stated that the old CMR building will be de-inventoried of special nuclear materials, significantly because of potential seismic concerns. So how can it be that a new \$1 billion nuclear weapons facility is bounded by an existing facility slated for extinction? There seems to be some sleight-of-hand here in the relevant potential accident analyses.

33 DNFSB Los Alamos Report for Week Ending July 28, 2006, emphasis added.

Even more serious is how annual accident consequences were arrived at in the 2003 CMRR EIS. That document is a major reference document to the DSWEIS, and is therefore a good example of how annual accident risks are severely downplayed in the DSWEIS as well. The CMRR EIS states:

The accident with the highest potential risk to the offsite population and maximally exposed offsite individual (see Table 4-15) would be a facility-wide spill caused by an earthquake that would severely damage the CMRR Facility with a risk of a latent cancer fatality for the maximally exposed offsite individual of 1.5×10^{-6} . In other words, the maximally exposed individual's likelihood of developing a fatal cancer from this event is about 1 chance in 666,000. 2003 CMRR EIS, p. 4-25.

On the face of it, it sounds very reassuring. However, when one goes to CMRR EIS Table 4-15, one finds that the potential severity of accident consequences are given on a per year basis, and not on the total severity of consequences should that accident occur during the operational lifetime of the facility. Further, one finds in the preceding CMMR Table 4-14 that should that accident occur, there are actually 100.6 predicted latent cancer fatalities, which begins to mean something even within what we believe to be NNSA's lowballed estimates. But in that same table the estimated frequency per year of that accident is given as 5.0×10^{-6} , or in other words only once in 500,000 years. So NNSA/LANL play God and declare that such serious seismic events could occur only within a half million years in the second most volcanic (although currently dormant) state in the Union. They go on from there to divide that potential accident's total predicted latent cancer fatalities by 500,000 years, to arrive at the reassuring calculation that there could be only a risk of one fatal cancer per 666,000 individuals in any one given year.

This is not credible, especially given that this DSWEIS was prepared before soon-to-be released seismic studies. Over the years Lab seismic studies have repeatedly lowered the predicted time interval between serious events. A new DSWEIS must incorporate the pending studies and adjust accident scenarios accordingly.

Proposed DSWEIS Alternatives

There are three alternatives analyzed in this SWEIS:

No Action Alternative—Operations would continue at current levels consistent with previous decisions such as those announced in the *1999 SWEIS* ROD.

Reduced Operations Alternative—Operations would be reduced at High Explosive Processing and Testing Facilities and eliminated at LANSCE and Pajarito Site.

Expanded Operations Alternative—Actions would be implemented to upgrade or replace aging facilities and systems, improve security, and remediate obsolete buildings and contaminated lands. Selected operations would increase, including the production of plutonium pits. **This is the preferred alternative.**

A "Greener Alternative" has already been rejected, as in:

A Greener Alternative was evaluated in the *1999 SWEIS*, the name and general description of which were provided by interested citizens as a result of the scoping process for that SWEIS. This alternative evaluated LANL capabilities existing at that time with an emphasis on work performed in support of basic science, waste minimization and treatment, dismantlement of nuclear weapons, nonproliferation, and other areas of national and international importance. While the Greener Alternative contained components of both the No Action and the Expanded Operations Alternatives evaluated in the *1999 SWEIS*, the

operational focus was on science, waste management, and nuclear weapons dismantlement. NNSA is not evaluating a similar alternative in this SWEIS because, as stated in the 1999 SWEIS ROD (see Appendix A), **a Greener Alternative would not support the nuclear weapons mission assigned to LANL.** DSWEIS, p. S-43.

We could hardly say it better. The public hopes and aspirations that LANL could ever divest itself of weapons of mass destruction programs and begin to seriously meet long-term national security needs such as preventing global climate change and promoting clean energy independence are, in a piece of circular logic, never to be realized because that wouldn't support LANL's nuclear weapons programs. Although it falls on deaf ears, we reiterate our support for a "Greener Alternative", and submit that a new DSWEIS should consider and analyze it.

Nuclear Watch New Mexico also requests that two additional alternatives be analyzed:

Onsite Aboveground Waste Storage Alternative: LANL should develop an aboveground waste storage site on Lab property. Low-level and low-level mixed radioactive waste should be stored aboveground in environmentally engineered mounds. This aboveground waste storage site would be large enough to receive all of the Lab's legacy waste after it is exhumed, all of the debris from future demolished buildings, and all future waste from future operations. This alternative would protect the regional aquifer and would solve transportation issues such as the inevitable increases of transportation costs, and emissions. If there were no site large enough on LANL grounds, then waste-generating operations would be moved to a site where there is room for an aboveground waste storage site. This way, in the future, the waste would be easily retrievable when a technology that can actually make radioactive waste safe is developed. A program like this was recently completed at the Fernald, Ohio Closure Project (see <http://www.fernald.gov/>).

Energy Security Alternative: LANL should initiate a Manhattan-Project-style effort to address the world's global-warming, energy-economy-security complex of problems through clean, renewable and non-nuclear technologies. Solving this global problem would do more for true national security than expanded nuclear weapons operations ever will.

The Radiological Sciences Institute Should Not Proceed Until it Has a Separate EIS

Quotes from the DSWEIS and its reference materials are italicized in this section.

The information and data on this proposal is insufficient and the project itself is too preliminary. A complex of this size, with up to 13 new major buildings, and multi-purpose missions, including "support for weapons manufacturing, material property evaluations for stockpile stewardship... and nuclear-weapons-related research," should have its own environmental impact statement when the reference data are complete.

NNSA's preferred alternative of Expanded Operations requires the decontamination, decommissioning, and demolition (DD&D) of 52, or 80 percent, of LANL's existing radiological facilities and consolidating their missions in the RSI. This massive overhaul will involve handling and disposing of contaminated structures, contaminated equipment and adjacent soil contaminated from 40 to 60 years of nuclear weapons work. The DSWEIS states this DD&D "would result in some release of radionuclides", but amounts are not given. How can this lack of detail constitute a credible environmental impact statement? Construction and operations at the new RSI, like many other nuclear weapons facilities at LANL, have

so much potential for environmental impact that they should be analyzed far more closely than is done in this DSWEIS.

Does this DSWEIS Expanded Operations Alternative seek to sanction only Phase I of the Radiological Sciences Institute (RSI), which is the Institute for Nuclear Nonproliferation Science and Technology Projects? The SWEIS should be explicit in this. Is there more to RSI Phase 1 than the Institute for Nuclear Nonproliferation Science and Technology Projects?

The DD&D of the existing buildings being replaced in Phase I of the RSI project is summarized as resulting in: *1,100 cubic yards transuranic waste; 93,000 cubic yards low-level radioactive waste; 1,000 cubic yards mixed low-level radioactive waste; and 74,000 cubic yards demolition debris and 1,304,000 pounds of chemical waste.* DSWEIS, p. S-76.

This is a very large volume, yet no reference is cited for where these numbers came from. This undermines the credibility of the DSWEIS. The SWEIS must identify the source of this information.

In addition, DD&D associated with the Radiological Sciences Institute is expected to generate 467 cubic yards of remote handled low-level radioactive waste and 12 cubic yards of remote-handled transuranic waste. DSWEIS, p. 5-139. The SWEIS must identify the source of this information.

A review of the Data Request regarding waste generated during DD&D for the RSI revealed the following:
Transuranic radioactive waste... Unknown at this preliminary preconceptual stage.
Low-level radioactive waste... Unknown at this preliminary preconceptual stage.
Mixed low-level radioactive waste... Unknown at this preliminary preconceptual stage.
Hazardous waste... Unknown at this preliminary preconceptual stage. LANL SWEIS 2006 Data Call, Modern Radiological Science Complex (TA-48) Data Request, p. 1.

Likewise the Data Request for information on the following presents similarly inadequate answers:
Doses to involved workers... Unknown at this preliminary preconceptual stage.
Average dose... Unknown at this preliminary preconceptual stage.
Maximum exposure... Unknown at this preliminary preconceptual stage. Ibid., p.15.

Given that the RSI project is so “preliminary” and “preconceptual”, how is it ripe for consideration in this SWEIS? The reference data are not complete and the impacts are not reasonably foreseeable from available information.

Problematic soil conditions are known to exist at the TA-48 site. A large potential release site encircles all of RC-1 and RC-45. Ibid. p. 2. Is this “problematic soil” cleanup part of the Expanded Operations Phase I for the RSI? How would cleanup, that presumably would need to be done before construction, comport with the New Mexico Environment Department’s (NMED’s) Consent Order, which the DSWEIS concedes will largely drive cleanup decisions? And isn’t this whole RSI proposal premature for consideration in this SWEIS before that is known?

There are 13 potential release sites at TA-48. Seven require characterization to define the contamination and its extent and seriousness. Ibid, p. 4. The above remarks apply here as well. Moreover, how can estimates be made until this characterization is done? The data are incomplete.

The project would consolidate radiological laboratories and working spaces to a significantly smaller footprint of modern, flexible facilities in up to 13 buildings located at TA-48. DSWEIS, p. G-30. Will the smaller footprint

for these radiological laboratories, which will be adjacent to the existing plutonium complex at TA-55, make the combined area a more likely target for terrorism?

The complex would also include a Security Category I underground vault for storage of special nuclear material, eliminating (through underground tunnels) routine material transport on public roads. DSWEIS, p. G-33. To what other facilities do the tunnels connect? If the tunnels connect to the proposed CMRR facility and PF-4 is it reasonably foreseeable that this creates the infrastructure to manufacture more than 80 plutonium pits per year?

For construction of the Security Category I underground vault for special nuclear material storage and the associated tunnel, excavation depths of up to 45 feet (14 meters) into the mesa may be necessary. DSWEIS, p. G-42. The 9-mile-long (14-kilometer-long) Rendija Canyon Fault is located approximately 0.5 miles (0.8 kilometers) east of the Radiochemistry Laboratory at TA-48. DSWEIS, p. G-41. Please identify, once they are buried, the distance this vault and tunnels will be above the structurally weak strata of volcanic ash that underlines the area. Also, how far will they be from the Rendija Canyon Fault?

New and developing projects that require radiological facilities include missions such as homeland security, advanced fuel cycle initiatives, separation processes for commercial-reactor spent fuel... DSWEIS, p. G-30. Does this mean that commercial spent reactor fuel will be transported to and be present at the RSI for the development of separation processes? If so, at what volumes? If not, how can there be serious R&D on spent fuel separation processes without spent fuel? In either event, how will this mission affect the volume and character of wastes produced by the new facility and the needed monitoring for safety and environmental impacts?

Data for the D&D of the facilities are not available at this point in the project. Each facility will have to be characterized separately. The TA-48 site has not been adequately characterized to determine doses associated with construction activities. LANL 2006 Data Call, att.12, p. 1. A separate, independent, and more complete EIS on the Radiological Sciences Institute (RSI) and the Institute for Nuclear Nonproliferation Science and Technology Projects is necessary to evaluate the scope of environmental impacts from activities at this site. What will the costs be in 30 or 40 years when these facilities are DD&D'ed? Can they be built in such a way as to minimize the expense to DD&D the structures and equipment when they are no longer useful?

It was assumed that the new facility operations would not exceed current operations. LANL SWEIS 2006 Data Call, Modern Radiological Science Complex (TA-48) Data Request, att.12, p. 1. Is this assumption consistent with the increased plutonium pit production the SWEIS seeks to sanction?

The Radiological Sciences Institute that would be built in TA-48 would provide a replacement for the Chemistry and Metallurgy Research Building Wing 9 hot cell. DSWEIS, p. S-90. Will operations be duplicated during the proposed transition or will they cease at Wing 9 first? Where will the materials be stored during the transition?

The DSWEIS contains contradictions and misleading statements about the Wing 9 hot cells.

...others [programs and functions] that would be moved to the Radiological Sciences Institute that have measurable quantities of emissions or waste include those of the Sigma Complex (Buildings TA-3-66, TA-35, and TA-169), ...Chemistry and Metallurgy Research hot cells (located at TA-3-29)... (DSWEIS, p. G-34.)

Not all Chemistry and Metallurgy Research capabilities would be moved to the new [CMRR] facility: Wing 9 hot cell operations, medical isotope production, uranium production, surveillance activities, and other capabilities would be eliminated. (DSWEIS, p. 3-15.)

It seems to be misleading and contradictory that, according to Appendix G, the (CMR) Wing 9 hot cells are being “moved” to RSI but “eliminated” according to Chapter 3. Is the preferred alternative analyzing the impact of Wing 9 operations being moved to RSI or eliminated?

The Sigma Complex Key Facility, located in TA-3, consists of the main Sigma Building and its associated support structures, including the Beryllium Technology Facility, the Press Building, and the Thorium Storage Building. (DSWEIS, pp. 3-15, 3-16.) Bulk depleted uranium is stored in the Sigma Building as supply and feed stock. (DSWEIS, p. 3-15.)

If as stated in Chapter 3 the programs and functions of the Sigma Complex are being moved to the new RSI, is it reasonable to assume the functional equivalent of the Beryllium Technology Facility will be moving to RSI? Is it reasonable to assume this further concentrates pit and mock pit production capabilities in the Pajarito Corridor? How much depleted uranium will be stored at RSI in support of the relocated Sigma Complex programs? Where will it be kept?

The Los Alamos Science Complex

This facility, collectively referred to as the “Science Complex”, would aid NNSA in fulfilling its primary Defense Program Stockpile Stewardship mission, while supporting basic and applied scientific research and technology to be conducted on DOE-administered land that could be custodially transferred from one Federal agency to another or by long-term ground lease or government-approved land transfer. DSWEIS, p. G-124. The meaning of this sentence is difficult to make out, but does provide a basis for us to make the following points.

When Nuclear Watch New Mexico finally obtained the LANL FY06 Ten Year Comprehensive Site Plan after litigating for it under the Freedom of Information Act one of the first things that struck us was that NNSA and LANL had convinced the United States Postal Service to provide “third party alternative financing” for construction of the Science Complex. Once we publicized it, only two days passed before the Postal Service announced that it was withdrawing from the arrangement. The USPS press release also made clear that there was indeed a *quid pro quo* with “the Postal Service assisting the Department of Energy in the development of a Science Complex in exchange for a parcel of land to build a new postal annex intended to relieve overcrowding at the existing downtown Los Alamos, NM mail processing facility.”³⁴

The February 2004 Memorandum of Understanding between NNSA and USPS, also obtained by us through the Freedom of Information Act, shows that it would indeed have been a very sweet deal for the Lab, where NNSA designs the Complex to its specifications and then leases the buildings back from USPS at a rate that the NNSA was to approve.

Now that USPS has pulled out of the arrangement, will the Los Alamos Science Complex still go forward? Are other “third party alternative financing” schemes being pursued? What other projects proposed in the DSWEIS are candidates for such alternative funding? Why did USPS pull out so hastily? Can it be that in the light of day other executive agencies may not want to be publicly associated with a nuclear weapons design and production center?

Finally, NNSA repeatedly states in its proposals that it is ultimately only following the will of Congress. For example, the “Purpose and Need for Agency Action” of this DSWEIS declares *...many of these activities are conducted solely at LANL so stopping these activities would run counter to national security policy as established by Congress.* DSWEIS, p. S-4. However, don’t third party financing schemes circumvent the constitutional right and duty of Congress to authorize and appropriate? A new DSWEIS should explain why or why not.

34 USPS press release, June 23, 2006, http://www.usps.com/communications/news/press/2006/pr06_0623.htm

Criticality Experiments and Nuclear Materials at Technical Area-18

...the only critical assembly that remains operational at TA-18 would be the Solution High-Energy Burst Assembly (SHEBA) in its Security Category III configuration. The Nuclear Criticality Safety Program would continue to operate the SHEBA critical assembly to maintain the capabilities for training and criticality experiments NNSA will analyze, through separate National Environmental Policy Act (NEPA) action, the relocation of SHEBA critical assembly from TA-18 to another site. DSWEIS, p. H-6. The current planning basis includes removal of SHEBA in 2009 and reconstituting it at another DOE Site by 2010. DSWEIS, p. H-9. Is it reasonably foreseeable that criticality experiments will be performed at RSI/ Institute for Nuclear Nonproliferation Science? Will new critical assembly machines be built for this purpose at the RSI, or anywhere else at LANL?

Relocate Security Category III and IV capabilities and materials that would remain at LANL from TA-18 to the Institute for Nuclear Nonproliferation Science and Technology. DSWEIS, p. 3-40. This SWEIS pertains to activities over the next 5 years. Will SHEBA be reconstituted at LANL? If so, where? Where will this material be kept? What are the volumes and composition of materials?

More than half of the programmatic special nuclear material was transported to the Device Assembly Facility at the Nevada Test Site. The remaining portion was transferred to TA-55 for temporary storage and excess special nuclear material sent to Y-12 disposition. DSWEIS, p. H-5. The current inventory of nuclear material at TA-18 consists of approximately 2.8 metric tons (3.1 tons) of Security Category I SNM and 18.5 metric tons (20 tons) of depleted and natural uranium and thorium. However, as a result of a concerted effort to reduce unnecessary site inventory, the forecasted mission support need would be to accommodate approximately 2.4 metric tons (2.6 tons) of security Category I SNM and 10 metric tons (11 tons) of depleted natural uranium and thorium (which do not require special security arrangements). DOE/EIS-0319, p. 3-6. Where will the balance (8.5 metric tons) of the depleted natural uranium and thorium be sent? If not removed, how will cleanup proceed at TA-18?

The Metropolis Computing Center

Nicholas C. Metropolis Center for Modeling and Simulation Increase in Level of Operations.

This project would expand the computing capabilities of the Metropolis Center to support, at a minimum, a 100-teraops capability, and could approach 200 teraops. This action would consist of the addition of mechanical and electrical equipment, including chillers, cooling towers, and air-conditioning units. DSWEIS, p. S-88.

A recent media article has stated:

Roadrunner will be housed at the Department of Energy's Los Alamos National Laboratory and will take up about 12,000 square feet of space, or roughly the size of three basketball courts. The system will also have advanced cooling and power management technologies.³⁵

Is the Metropolis Center in anyway connected to the new Roadrunner supercomputer? Please explain where Roadrunner will be located. What is the predicted water use by Roadrunner? A word search of "Roadrunner" yields nothing from the DSWEIS. Does the DSWEIS consider Roadrunner in some fashion?

Radioactive Liquid Waste Treatment Facility Upgrade

In the DSWEIS, NNSA enunciates three options for upgrading or functionally replacing in whole the Radioactive Liquid Waste Treatment Facility (RLWTF) at TA-50. The current RLWTF treats all liquid

35 <http://www.bizjournals.com/austin/stories/2006/09/04/daily19.html>

radioactive wastes generated at LANL, except those generated at TA-53 and occasionally those from TA-21. From a NEPA perspective, the DSWEIS utterly fails to state its preferred alternative for RLWTF upgrade/replacement, therefore how can a commentator make informed comment on the RLWTF? A new DSWEIS should explicitly state what the preferred alternative is for RLWTF. It is as if NNSA is hedging its bets on this crucial facility that is absolutely central to the proposed expansion of plutonium pit production.

We believe that a few years ago the New Mexico Environment Department (NMED) was drafting a state permit for the RLWTF, the first in its ~40 year history. What is the status of that State permit? Reportedly, the permit would have required remedial actions for the perched aquifers in Mortandad Canyon that are heavily contaminated by decades of RLWTF operations. What is the status of those future remedial actions, both within and without any possible future State operating permit?

Where will liquid radioactive wastes be collected and stored while the facility is being updated? The specific seismic and accident risks during this period of time should be addressed in a new DSWEIS.

The building would consist of a partially below-grade basement... The building would be sited near the point where transuranic waste lines enter TA-50... DSWEIS, p. G-65.

Considering the location of this building, is it reasonable to assume there is a risk of damaging the transuranic lines during excavation? The SWEIS should address the risks and remediation of such an event.

An auxiliary action of installing a pipeline and constructing evaporation basins to treat effluent could occur with any of the options. DSWEIS, p. 3-102. The evaporation basins could be constructed at a site located about a mile east of the Radioactive Liquid Waste Treatment Facility... If evaporation basins were constructed, the pipeline to them would be routed east through TA-63 and TA-52 in areas with current land use designations of Physical and Technical Support, Experimental Science, and Reserve. The proposed location of the evaporation basins near the border of TA-52 and TA-5 is designated Reserve. DSWEIS, p. G-70.

Will this ~mile-long pipeline be seismically qualified? Does it cross any canyons or deep depressions? Is the treated effluent being pumped or is it gravity fed? What constituents will be evaporated? What will remain behind in the basin? What is the disposal plan for what is left after evaporation? Why will sludge from the evaporator bottoms possibly have to go to Tennessee for “drying out”? Does this have anything to do with the Toxic Substances Control Act, for which the Oak Ridge Lab has the only DOE TSCA-permitted incinerator?

The evaporation location is very near the San Ildefonso Pueblo Sacred lands, yet the DSWEIS Environmental Justice assessment for the project states: *The proposed project is mainly confined to already-developed areas of TA-50, with no disproportionate human health impacts expected.* DSWEIS, p. G-71. A reassessment of the impact of construction and operation of these 4-acre basins must be performed in a new DSWEIS.

It is anticipated that air emissions data would remain the same for the purposes of analyses within this new SWEIS, and therefore, would result in insignificant health-related impacts to the public relative to other sources. DSWEIS, p. 5-83. *It was anticipated that the replacement Radioactive Liquid Waste Treatment Facility would also have minimal radiological air emissions and therefore would not be modeled in this SWEIS.* DSWEIS, p. C-12.

If effluent is being evaporated in shallow lagoons rather than dumped into the canyon, how can it be said that air emissions would be the same for LANL as a whole? A new DSWEIS should address how the evaporation of effluent from the RLWTF would add to air emissions. Also, the DSWEIS has a “RLWTF Zero Discharge Option”, which given the extensive radioactive and chemical contamination to perched aquifers in Mortandad Canyon certainly sounds like a good thing. However, the name of that option is misleading if liquid effluent

discharges are to be eliminated, only to be replaced in whole or in part by evaporative air emissions. A new DSWEIS should fully discuss this, and make clear by volume what proportion of present liquid effluent would be possibly replaced by evaporation.

The chart on p. 4-136 of the DSWEIS shows that the RLWTF exceeded the 1999 SWEIS Record of Decision amounts of low-level radioactive waste generation in 5 of the 6 years listed. With Expanded Operations, is it reasonable to assume that the new projections of LLW from this facility are similarly misleading?

Offsite Recovery Project (OSRP)

Another component of the Expanded Operations Alternative is the increased onsite storage of highly radioactive sealed sources. A sealed radioactive source is a radioisotope that is fully encapsulated in metal or other container such that the radioactive material cannot be contacted. Sealed sources have medical and well-drilling applications. It has been estimated that 21,000 sealed sources within the commercial sector will become excess and need to be managed in this Off-Site Source Recovery Project. Except for those containers of defense-related sealed sources that would be eligible for shipment to the Waste Isolation Pilot Plant, this waste has no disposal path. The waste containers are placed in storage and held until an appropriate waste disposal facility becomes available. The total volume of actinide sources with no disposal path is expected to be approximately 260 cubic yards. Is there a plan to research technologies to dispose of these safely, or is the plan to bury these? Where? In 2004, 2 sources containing 60,510 Ci of Sr-90 were disposed of as LLW at Hanford.

Before the proposed increase of the Expanded Operations Alternative, sealed sources put LANL over its 1999 SWEIS transuranic waste limits at Area G. To alleviate this problem, the Lab is trying to convince DOE that sealed sources are different enough to remove them from the "Material At Risk" inventory. The sealed sources would still be at Area G, but they would not add to the Area G waste totals because, as the Lab's reasoning goes, they are a safer form of transuranic waste. This issue is due to be fully addressed in the yet unreleased amended Area G DSA.³⁶ **Please explain how this shell game of separately addressing sealed sources protects the health and safety of the public and the environment.**

LANL has not been able to handle sealed sources efficiently to date. The Lab's space currently provided for sealed sources has to be shared with other program offices activities. The sharing arrangement has resulted in frequent conflicting priorities for the space. OSRP will also have to plan for future international recovery opportunities since there are approximately 6,500 grams of Pu-239 sources located in other countries.

As a result of these concerns, NNSA management has initiated actions to provide OSRP with 2,000 grams of dedicated storage at Los Alamos' TA-55 by the end of Fiscal Year 2006. The Deputy Administrator for Defense Programs directed the Los Alamos Site Office Manager to incorporate this action into Los Alamos' contract performance execution plans. However, specific plans and schedules to provide the dedicated storage space had not been prepared at the time of our audit. Specifically, Los Alamos had not prepared plans to complete the safety authorization basis, risk assessment, management self-assessment, and a laboratory readiness review that are pre-requisites to providing the dedicated space. OAS-M-06-09, p. 2.

LANL's history with sealed sources and its problems with documents should exclude the Lab from receiving any more sealed sources.

Sealed sources that contain high activity or need special handling would be transported to Wing 9 of the CMR Building, removed from packages, and stored in the floor holes. The remaining sources would remain in their original DOT-compliant shipping containers and would be transported to Area G, TA-54. High activity

36 LANL 2004d, Evaluation of OSRP Sealed Sources at TA-54, Area G, TD-SWO-012, R.0, FWO-Solid Waste Operations, Los Alamos, New Mexico, October 28, p. 7.

strontium-90 sources and other high activity sources could be stored in a retrievable configuration in shafts. Radium-226, curium-244 and californium-252, if stored at LANL, would more than likely be stored in the pipe overpack container. (DSWEIS, p. J-49)

CMR is being relocated and is reducing its Materials At Risk due to seismic concerns. Are these sealed sources planned to be moved to CMRR? Are there new shafts being dug at Area G?

If mitigation measures are needed for potential sealed source accidents, they would include placing sealed sources in locations where they would not be susceptible to damage from an aircraft crash, fire, or seismic event (kept underground like strontium-90 at TA-54). DSWEIS p. J-58.

Why wouldn't sealed sources need mitigation from accidents? It looks like the mitigation plans are the same as the regular storage plans.

Except for those containers of defense-related sealed sources that would be eligible for shipment to WIPP, this waste has no disposal path. The waste containers are placed in storage and held until an appropriate waste disposal facility becomes available. DSWEIS p. J-46.

Is LANL the best place for this waste? What other alternatives were analyzed? The DSWEIS estimates that if the Lab were to be fully cleaned up, 100,000 offsite shipments would be required. Why make or import more chemical and radioactive wastes when the legacy waste inventory is already so immense?

Socioeconomics

LANL's analyses of socioeconomic impacts are unverifiable and based on speculation. As the SWEIS says, "... it is not possible, as requested by one commenter, to verify projected socioeconomic benefits due to the lack of available data tied specifically to LANL's economic influence over the region." DSWEIS, p. S-23. Just because the data are unavailable, can the Lab speculate on this important topic? For this reason, the Lab must initiate an independent analysis of the socioeconomic impacts and republish this draft SWEIS.

For the most part, operations at LANL remained within the projections made in the 1999 SWEIS. Operations that exceeded projections, such as number of employees or amount of chemical waste generated from cleanup activities, produced a neutral or beneficial impact on northern New Mexico. A larger number of employees increases the tax base and results in a higher level of economic activity. DSWEIS, p. S-24. Please explain how increased chemical waste produces a beneficial impact.

Considering LANL positions are some of the highest paying positions in the region, the benefits associated with these positions in terms of increased revenues and taxes should more than offset any perceived drawbacks. DSWEIS, p. S-50. These employees have had a positive economic impact on northern New Mexico. DSWEIS, p. S-214.

Please state if Los Alamos County is expected to continue to receive a disproportionately large percentage of the economic benefits from the Lab and remain the richest county in the U.S. The DSWEIS must analyze whether alternative missions would be of greater economic benefit to all of northern New Mexico.

LANL's potentially adverse impacts on tourism must be analyzed. Tourism is a major contributor to Santa Fe's and northern New Mexico's economy. Please analyze the effects of a major accident at the Lab on tourism.

The construction costs of all proposed facilities should be given in a new DSWEIS.

Cleanup Must Not Include “Cap And Cover” Of Unlined Waste Dumps

The DSWEIS analyzed two options for LANL’s legacy buried waste. The Capping Option would leave all radioactive and chemical wastes in place in the major disposal areas and cover them with a surface rain barrier. The Removal Option would remove all legacy waste from the ground.

The DSWEIS correctly notes that future cleanup decisions will be largely driven by the New Mexico Environment Department (NMED). However, internal Lab documents already point to predetermination, saying “Many contaminated sites will be remediated to industrial use standards, in part because cleaning up to residential or unrestricted use standards is prohibitively expensive.”³⁷ Cleanup that will protect ongoing generations cannot be dictated by today’s short-term fiscal considerations. If more money is needed for comprehensive cleanup, take it from the ever-expanding budget for the Lab’s nuclear weapons programs. Don’t generate more radioactive and chemical wastes when cleanup costs are already “prohibitively expensive.”

LANL still is burying its radioactive wastes in unlined dumps, in contrast to all other new State-regulated landfills in New Mexico. The 1999 LANL SWEIS allowed more unlined waste pits, called Zone 4, near the existing unlined waste pits that NMED may require to be exhumed. The whole concept of Zone 4 should be reexamined because waste volumes are substantially higher than in the 1999 SWEIS. A new DSWEIS must consider the benefits of lining Lab dumps.

LANL Must Not Allow Contaminants To Reach The Aquifer Or The Rio Grande

The DSWEIS states that recharge to the regional aquifer from the shallow contaminated perched groundwater bodies occurs slowly because the perched water is separated from the regional aquifer by hundreds of feet of dry rock. Is it suggesting, because the contaminants reach the aquifer slowly, that everything is OK? The fact is that tritium, perchlorates, chromium, and high explosives contaminants from Lab operations have already reached the regional aquifer. Lab computer models show a five-year travel time from the surface to the aquifer in some areas. LANL must prioritize protecting our precious aquifer.

Sadly, the interpretation of groundwater data is complicated by problems that affect the sampling wells. Specifically, the bentonite clay used in well drilling can mask many radionuclides and other contaminants. The use of circulating muds and other drilling fluids can have a similar effect by more complex mechanisms. The groundwater data in the DSWEIS could represent systematic underestimates of the actual contamination, and cannot be relied upon in the SWEIS.

Lab analysis of stormwater runoff and surface water also shows high contamination. Americium-241, strontium-90 and plutonium-238 & 239 in particular have been measured at levels up to ten times the drinking water standard. There is a witch’s brew of hundreds of other contaminants in the soil at the bottom of the canyons. Contaminated stormwater either seeps into the ground, posing a threat to groundwater, or, in intense storm events, drains to the Rio Grande. During every storm event, these contaminants migrate closer to the Rio Grande. LANL must publish its raw data, including storm-by-storm migration reports and the totals and locations of all the contaminants released. The Lab was self-serving in its choice of references that it used for this DSWEIS. Independent, outside research by experts such as Bob Gilkeson and George Rice were not included.

LANL Must Stringently Minimize The Use Of Our Precious Water

Estimated water usage for the expanded alternative will exceed LANL’s current capacity. Many DOE nuclear weapons facilities have been historically located next to abundant water sources, but LANL was not. When it

was primarily a design laboratory, lack of water was not so large a problem. But now that the Lab is positioned to become the nation's plutonium pit production center, LANL is starting to covet the scarce water resources of the desert Southwest. The Lab plans to obtain more water rights, but what about the future? Will the Lab start buying up ever-increasing water rights, perhaps depriving others northern New Mexicans of their most precious resource?

Construction Of New Nuclear Weapons Facilities Should Cease Until Seismic Risks Are Fully Understood

The seismic event that presents the largest risk to the public and workers would be a postulated Performance Category-3 earthquake with a frequency of once every 2,000 years. If this accident were to occur, there would be widespread damage at LANL and across the region resulting in a large number of fatalities and injuries unrelated to LANL operations. Facilities at LANL would be affected and the public and workers at the site would be exposed to increased risks from both radiological and chemical releases. DSWEIS, p. S-54. The DSWEIS also states that the most recent faulting event on the Pararito Plateau was 1,500 to 2,000 years ago. p. 4-23. This gives an idea of how LANL may be due for a seismic event.

The DSWEIS mentions the imminent completion of a new seismic report in the forth quarter of 2006. *A report in preparation by the LANL Seismic Hazards Geology Team will document a comprehensive review and re-evaluation of geochronological constraints on paleoseismic activity in the Pajarito Fault system. This study is being prepared to recalculate the probabilistic seismic hazard at LANL. The reanalysis of the seismic hazard will incorporate data from studies completed since the 1999 SWEIS (LANL 2004e). Both the comprehensive review and reanalysis of seismic hazard are planned for completion in the fourth quarter of 2006.* DSWEIS, p. 4-25.

Yet, this unpublished report is already being quoted in this DSWEIS. *Presented below is a summary of data provided in "Information Document in Support of the Five- Year Review and Supplement Analysis for the Los Alamos National Laboratory Site-Wide Environmental Impact Statement" (LANL 2004e). It represents data derived from trench and borehole studies, as well as other studies conducted on seismic hazards in the vicinity of LANL. These studies have focused on the western third of LANL (shaded area in Figure 4-9) because the principal faults, and the principal seismic risks at LANL, are located in that portion of the area.* DSWEIS, p. 4-21.

The document mentioned above references the unpublished pending seismic report. *Recent work (Gardner et al., 2001; Reneau et al., 2002; Lewis et al., 2002; Schultz et al., 2003; LANL Seismic Hazards Geology Team, unpublished data) has shown that the Pajarito fault system is a broad zone of distributed deformation, and that the master Pajarito fault itself probably breaks the surface only along part of its length in the vicinity of LANL.* LANL 2004e, p. 4-38.

The LANL Seismic Hazards Geology Team Report must be released to the public as part of the reference documents. Otherwise, the public must rely on the sections that LANL wants to be part of this DSWEIS. Figure 4-9, Mapped Faults in the Los Alamos National Laboratory Area, is a good example of the DSWEIS quoting the unreleased report. The title of this figure is "mapped faults", but this term is not defined. We have to go to the reference document for a definition.

Shaded area is covered by detailed geologic mapping or in-progress mapping. Note that the eastern two-thirds of the Laboratory has not been mapped. Thin grey lines are roads, thick grey lines are LANL technical area boundaries. LANL 2004e, p. 4-27. But it is still unclear how the term "mapped faults" is defined. Are the "in-progress mapping" faults shown in this figure? Please define the terms "mapped fault" and "in-progress mapping."

Seismic activity at LANL is an important issue. Seismic issues are given as reasons why the old CMR building had to be moved, precipitating the construction of a new \$1 billion facility. The Waste Characterization, Reduction, and Repackaging Facility (WCRRF) is not authorized to repackage drums that exceed 56 curies because of seismic concerns. The Radioactive Assay and Nondestructive Test facility (RANT) is not authorized to load a TRUPACT above about one-fifth of the TRUPACT radioactivity limit, also because of seismic issues. Both WCRRF and RANT are near to TA-55, and on the other side of TA-55 from the “mapped faults,” yet the DSWEIS continues to downplay seismic issues at TA-55.

Surveying of Bandelier Tuff contacts at Mesita del Buey (TA-54) revealed 37 faults with vertical displacements of 2 to 26 inches (5 to 65 centimeters). These small faults appear to be secondary effects associated with large earthquakes in the main Pajarito Fault zone, or perhaps earthquakes on other faults in the region (LANL 2004e). DSWEIS, p. 4-24. Please explain why these 37 faults are not on the “mapped faults” map.

Comparison of the DSWEIS and the reference document show differences.

Five small earthquakes (magnitudes of 2 or less on the Richter scale) have been recorded in the Pajarito Fault since 1991. These small events, which produced effects felt at the surface, are thought to be associated with ongoing tectonic activity within the Pajarito Fault zone (LANL 2004e). DSWEIS, p. 4-23.

*Five small earthquakes (magnitudes of 2 or less) have been recorded in the Pajarito fault zone since 1991 (Gardner and House, 1999). **These small events, which produced surprisingly strong felt effects,** are thought to be associated with ongoing tectonic activity within the Pajarito fault zone. LANL 2004e, p. 4-31, emphasis added.*

The Defense Nuclear Facilities Safety Board, as mentioned earlier in these comments, was only mentioned twice in this SWEIS. The DNFSB has provides many independent comments on this issue.

Chemistry and Metallurgy Research Facility Replacement Project (CMRR): The project intends to use an interim seismic ground motion spectrum to support structure and component design for the next few months while the site-wide probabilistic seismic hazard analysis (PSHA) is finalized. Last month’s staff review found that the PSHA and CMRR site characterization efforts were using different inputs (e.g., shear wave velocities, damping curves). While the project believes that the interim spectrum is conservative, timely resolution of differences would reduce programmatic risk.³⁸

LANL is struggling with many issues involving transuranic waste storage, repackaging, and shipment: the fabric on safety-class storage domes is ripped; the strength of safety-class banding is questionable; some of the +20,000 safety-class drums above ground have excessive weight (i.e., greater than 1,000 lb); many of the drums will need to be repackaged, but the single repackaging facility WCRRF – is several miles from the drums and is not authorized to repackage the roughly 300 drums that exceed 56 Ci because of seismic concerns ; the single shipping facility - RANT - is not authorized to load a TRUPACT above about one-fifth of the TRUPACT radioactivity limit, also because of seismic issues. At this point, neither NNSA nor LANL seems to understand and to be considering the relative risks of alternatives to address these issues - particularly, whether it is appropriate to take actions to address a seismic vulnerability that may also slow shipments.³⁹ LANL must not plan new missions or expand existing missions until all seismic and waste issues are corrected and resolved.

Since March 2005, NNSA has intended for RANT to receive seismic upgrades or shutdown. LANL has apparently not been pursuing the upgrades since last Fall, NNSA has not monitored the issue since last Fall

38 DNFSB, Los Alamos Report for Week Ending July 21, 2006.

39 DNFSB Los Alamos Report for Week Ending July 21, 2006.

when it dropped its SSO oversight, and the issue remains open (site rep weeklies 4/28/06, 3/18/05).⁴⁰ How can LANL plan to generate more waste with this type of neglect affecting waste operations? LANL must not generate new waste until all DNFSB concerns are resolved to the Safety Board's satisfaction.

Even if TA-55 is not on a fault, most of TA-3 is, so what is the wisdom of continuing to build at LANL when the main administration area may be damaged during an earthquake? In fact, the FY06 LANL Ten Year Comprehensive Site Plan states that in "an earthquake, it is anticipated that SM-43 would experience extensive failures and could collapse." LANL FY06 TYCSP, p. 5-11. And, of course, LANL's seismic concerns extend well beyond TAs-55 & -3, with, for example, "the TA-50 RLWTF [Radioactive Liquid Waste Treatment Facility] fails to meet seismic requirements." LANL FY06 TYCSP, p. 4-105.

These serious seismic issues also extend beyond facilities that are considered in the SWEIS. The Chemistry and Metallurgy Research Replacement Project has already undergone its own environmental impact statement, and hence is treated as part of the DSWEIS' "No Action Alternative." However, just as with this DSWEIS, the CMRR EIS failed to adequately explore serious seismic concerns. It has recently come to light that:

Unusual volcanic geology created a thick, weak non-welded tuff (volcanic ash) stratum below more competent tuff at the site selected by LANL. The mostly below-grade facility, to be founded at a depth of about 60 feet, will be less than 20 feet above the weak ash, leading to concerns about the possibility of the ash matrix collapsing and densifying under earthquake loading and causing settlement of the facility.⁴¹

However, since the CMRR is now being constructed at TA-55, as a geology matter this applies to all of TA-55 and no doubt beyond, particularly to the DSWEIS's proposed Radiological Sciences Institute at TA-48, contiguous to TA-55. Why does the DSWEIS fail to even mention these serious seismic concerns, much less actually begin to substantively address them? A new DSWEIS should incorporate the latest LANL seismic studies and genuinely address these concerns.

Transuranic Waste Issues in the LANL DSWEIS

1. The DSWEIS is fundamentally inadequate and extremely misleading about transuranic waste generation and storage.

LANL's preferred Expanded Operations Alternative will turn the site into a permanent, large-scale transuranic (TRU) waste dump, a fact not mentioned in the document.

Buried on page 5-196 (Table 5-79), the DSWEIS estimates that the Expanded Operations Alternative from 2007 to 2016 would generate more than 25,000 cubic meters of TRU waste and the Modern Pit Facility would generate an additional almost 11,500 cubic meters of TRU waste during the same 10 years. The only TRU waste disposal site is the Waste Isolation Pilot Plant (WIPP), which in its most recent regulatory document (the Environmental Protection Agency Recertification Application) provides for 17,130 cubic meters of disposal capacity for LANL. Thus, the majority of the TRU waste that LANL would generate would not go to WIPP, but rather would very likely stay at LANL. The DSWEIS merely states: "Transuranic waste would be stored onsite until additional disposal capacity, at WIPP or elsewhere, was [sic] identified." P. 5-197. Of course, all of the TRU waste generation from continuing operations after 2017 would further add to the waste with "no disposal path" that would stay at LANL.

40 DNFSB Los Alamos Report for Week Ending July 28, 2006.

41 A TUFF JOB – SITE CHARACTERIZATION FOR A NUCLEAR FACILITY AT LOS ALAMOS, Kuhn, Alan, PhD, PE, RG, CEG, Senior Principal Consultant, Kleinfelder, Inc., 2005, *parens* in the original.

The DSWEIS is misleading in that it repeatedly does not fully report the amount of TRU waste that would be generated under the Expanded Operations Alternative. For example, Table 3-17 on pages 3-51 to 3-53, shows much smaller amounts of TRU waste transport, receipt and acceptance than 36,500 cubic meters. The table shows 8,400 cubic meters of legacy TRU, 2,000 cubic meters of newly generated TRU (200 cubic meters x 10 years), 190 cubic meters of additional TRU and 100 cubic meters of remote-handled TRU, for a total of 10,690 cubic meters. The table also states that an unspecified amount of TRU waste from DD&D and remediation activities would go to WIPP. Page 3-54 states that TRU wastes “are prepared for disposal and shipped to WIPP.” There is no indication that any TRU waste, let alone most of it, could not go to WIPP.

Table 5-37 on page 5-128, entitled “Summary of Total ... Waste Generation Projections” shows that the total amount of TRU was for the Expanded Operations Alternative would be 25,230 cubic meters. The large amounts of additional TRU waste from the Modern Pit Facility are not included. Table 5-49 on page 5-143 includes the same misleading underestimate of the amount of TRU waste. Table 5-50 on page 5-147 showing offsite TRU waste shipments also does not include Modern Pit Facility TRU wastes. That same misleading shipment information is shown on Table K-5, page K-25.

B. The draft SWEIS provides no analysis of the impacts of some of the TRU waste that is proposed for LANL.

One element of the Expanded Operations Alternative is to increase the type and quantity of sealed sources brought from other sites to LANL. However, the draft SWEIS does not include all of the off-site sealed sources as TRU waste even under the largest waste estimates. On page J-47, the draft SWEIS states: “At this point, sufficient information is not available to predict the total number of [actinide-bearing] sources to be managed.” Thus, the draft SWEIS proposes unlimited amounts of TRU waste in those sealed sources could come to LANL with no adequate analysis of their environmental impacts. And since those actinide-bearing sources are legally barred from being disposed at WIPP because they are not defense TRU wastes, those sources have no disposal path and would likely stay at LANL.

2. The draft SWEIS does not acknowledge that LANL is already storing increasing amounts of TRU waste, nor does it adequately analyze their impacts.

Since the issuance of the 1999 LANL SWEIS WIPP, has opened. The draft SWEIS does not include any information about the amounts of TRU waste shipped to WIPP from LANL. Table 4-52 on page 4-149 shows that LANL made 47 shipments of TRU waste to WIPP from 2002 to 2004 but includes no information about the amounts of TRU waste (which was 344 cubic meters). Information from WIPP shows that from 1999 through 2004, LANL shipped 598 cubic meters of TRU waste to WIPP. Table 4-40 on page 4-134 of the draft SWEIS shows that during that same time period, LANL generated about 1,440 cubic meters of TRU and TRU mixed waste. Thus, even though TRU waste was being shipped from LANL, it was generating and receiving substantially larger amounts of TRU waste than it shipped. Thus, LANL’s mission is increasingly one of being a long-term TRU waste site, a fact that is not acknowledged in the draft SWEIS and there is no adequate analysis of the impacts of that mission.

3. The draft SWEIS does not describe the substantial problems that have occurred in managing TRU waste and preparing it for shipment to WIPP.

According to the draft SWEIS under any of the three alternatives, LANL will ship its legacy TRU waste (8,400 cubic meters) as well as 2,000 cubic meters of newly generated TRU waste (200 cubic meters per year) to WIPP. Table 3-17, page 3-51. However, as already noted, the draft SWEIS does not acknowledge that in six years LANL shipped less than 600 cubic meters of waste to WIPP. During some of that period, LANL was prohibited from shipping TRU wastes because it did not comply with characterization procedures.

The document describe the major changes that would need to be made in its operations in order to increase characterization and shipments of TRU waste by more than 10 times -- from an average of less than 100 cubic meters per year from 1999 to 2004 to more than 1,000 cubic meters per year from 2007 through 2016.

In fact, its past history shows that LANL does not have the capability to ship all of its legacy TRU waste to WIPP, so the draft SWEIS statement that all legacy TRU will have been shipped to WIPP "by the end of 2015" (page 5-99) cannot be supported. Instead, the SWEIS must analyze the impacts of further increasing amounts of TRU waste being managed at LANL.

The DSWEIS states:

In Area G, NNSA needs to complete or move all storage operations and processing of transuranic waste for shipment to WIPP for disposal so that closure activities can be completed in compliance with the Consent Order. DSWEIS, p. H-63.

In the event of a wildfire that would impact LANL, and if the fire were to burn the waste storage domes at TA-54 and cause their contents to be released to the environment, the radiological releases from those waste storage domes would dominate the potential impacts to LANL workers and to the public from the fire. Should such an accident scenario occur in which the contents of the waste storage domes actually caught on fire and burned, the MEI would likely develop a fatal cancer during his or her lifetime and an additional 55 LCFs could be expected in the general area population. Any onsite worker located about 110 yards (100 meters) of the facility during such an accident would likely develop a fatal cancer during his or her lifetime. Taking into account the frequency of occurrence, the annual risks are estimated to be about 1 chance in 20 of an LCF for the MEI or for an offsite worker and an additional 3 LCFs in the offsite population. These risks assume that workers and members of the public do not take evasive action in the event of a wildfire. These risks would decrease as transuranic waste is removed from the domes and transported to WIPP for disposal. DSWEIS, p. S-53.

Conversely, as the waste in the domes increases, the risk would increase. Please analyze the risks on a year-by-year basis of the inevitable increase of TRU waste in the domes. Please analyze the increased risks of rips in the domes.

Under the Removal Option, extremely large quantities of wastes would be generated, including low-level radioactive waste and transuranic waste. The estimated quantities of low-level radioactive waste and transuranic waste would exceed the disposal capacity currently planned for LANL and the current LANL WIPP allocation. Therefore, additional waste disposal capacity for both types of waste would have to be identified. DSWEIS, p. S-86.

These would have to be identified now, in this SWEIS. Because if there is no additional disposal capacity for TRU, which there isn't, then additional storage impacts at LANL need to be analyzed.

In 2003, the volumes of transuranic waste and mixed transuranic waste processed by the Solid Chemical and Radioactive Waste Facility exceeded 1999 SWEIS projections by approximately five times the projected volumes due to the repackaging of legacy transuranic waste for shipment to WIPP. DSWEIS, p. 2-57. This is an example of LANL inability to predict waste volumes. Can the stated waste volumes be relied upon?

Waste management impacts from LANL operations under the Expanded Operations Alternative are expected to increase due to heightened operations at the Plutonium Facility Complex and increased characterization and management activities in the legacy waste retrieval program compared to the No Action Alternative. Although operational transuranic waste quantities are higher under this Alternative, waste disposal capacity at WIPP

is expected to be adequate, assuming best estimates are realized. DSWEIS, p. 5-142. LANL is assuming, not scientifically analyzing. There is no room for assumptions in this DSWEIS.

To accelerate the processing of contact-handled transuranic waste from the fabric domes, DOE plans to install and operate three modular units at Area G to duplicate the capabilities provided by the Waste Characterization, Reduction, and Repackaging facility. In addition, processing functions would be consolidated in one of the large domes (such as Dome 375) to increase processing efficiency and speed. The net result is that 16 drums could be readied for shipment to WIPP in the same time that current operations at TA-50 can produce only one drum for shipment (DOE 2002a). DSWEIS, p. H-61. Dome 375 is full of drums and located over buried legacy waste. Is this the only alternative analyzed? What are the seismic implications?

Structures and processes for shipping contact-handled transuranic waste stored in the above-ground fabric domes to WIPP have been analyzed through the NEPA process in the 1999 SWEIS (DOE 1999a) and related Supplement Analysis (DOE 2002a) and the Environmental Assessment prepared for the Decontamination and Volume Reduction System (DOE 1999b), however, the retrieval and processing of transuranic waste in below-ground storage requires analysis through the NEPA process. DSWEIS, p. H-62. In other words, there is no plan yet for this process, yet LANL keeps implying that Area G will be closed by 2015.

Land Transfers

This SWEIS focuses on the impacts associated with those parcels of land that have already been or are expected to be conveyed or transferred by the end of 2007, when the authorizing legislation expires; however, it should be noted that the Conveyance and Transfer EIS addresses a larger suite of properties that could potentially be conveyed or transferred if additional authorization were received. DSWEIS, p. I-39. Please list the cleanup levels of all transfers and if these levels are not residential, please explain why. Has this authorizing legislation been extended?

NEPA Categorical Exclusions

Since January 2004, there have been over 60 NEPA categorical exclusion determinations for operations at LANL. These exclusions include several D&Ds of vacant laboratory buildings. DOE NEPA regulations state that categorical exclusions should only be implemented if they “do not individually or cumulatively have a significant effect on the human environment” (10 CFR 1021.410). Please provide a reason why each of the exclusions should be excluded from NEPA review, and why each does not and together cumulatively have a significant effect on the environment.

Cumulative Impacts

DOE’s NEPA Implementing Procedures require a SWEIS to include “cumulative impacts of ongoing and reasonable foreseeable future actions at a DOE site” (10 CFR 1021.104). The cumulative impacts of all categorical exclusions, all other EISs pertaining to LANL, the 1999 SWEIS and this new SWEIS or S-SWEIS need to be considered together.

Endangered Species

Under both options, road and bridge construction would take place within the buffer zone of the Sandia-Mortandad Canyon and Los Alamos Canyon Mexican spotted owl Area of Environmental Interest.

Additionally, they would pass through the core zone of the Sandia-Mortandad Canyon Mexican spotted owl Area of Environmental Interest. DSWEIS, p. 5-78. Please protect the spotted owl and all the endangered species on LANL grounds. The effects of any proposed actions must take the Mexican spotted owl into account before further action. A new DSWEIS should propose and a final Record of Decision should implement specific mitigation measures for the Mexican spotted owl in particular, and all endangered species in general.

The waste storage domes in MDA G would be removed as part of this project. Their removal would have a beneficial impact on both near and distant views. Since these domes are visible from the lands of the Pueblo of San Ildefonso, their removal would improve the views from traditional cultural properties. Accommodations for the Mexican spotted owl and willow flycatcher during removal, construction, and DD&D activities could be required. DSWEIS, p. 3-112. Are there Mexican spotted owls living in the domes?

Fiscal Year 2006 LANL Ten Year Comprehensive Site Plan

NNSA describes Ten Year Comprehensive Site Plans from its individual sites as the key planning documents for the future “intended” nuclear weapons complex. Yet, the DSWEIS lists only the LANL Plans for Fiscal Years 2000 and 2001 as reference documents, which are obviously not current, and this is yet another major deficiency in the whole SWEIS process.

The FY 2006 LANL Ten Year Comprehensive Site Plan, which has already been released to the public under Freedom of Information Act litigation, should be incorporated into the body of reference documents and made publicly available as part of the directly relevant reference documents (and the pending FY 2007 Plan as well).

Since Nuclear Watch New Mexico was successful in obtaining the FY06 LANL TYCSP through FOIA litigation, we take the opportunity to comment on it here. While noting that the public at large was deprived of this right, we assert that it is very much central to commentary on the DSWEIS. In fact, we assert that the FY06 LANL TYCSP is one of the best windows of view into what is actually driving the DSWEIS. The issues below are as they were sequentially presented in the LANL FY06 Ten Year Comprehensive Site Plan.

Northern New Mexico’s Groundwater Aquifer

All drinking water for Los Alamos County, the Laboratory, and Bandelier National Monument comes from the regional aquifer. FY06 TYSCP, p. 2-7. The Safe Drinking Water Act of 1974, as amended (42 U.S.C. 300(f) et seq.) established the Sole Source Aquifer Program to allow for special regulations concerning the impacts on drinking water from a single source. The SWEIS must address protection of this sole source aquifer in accordance with this standard. Why wasn’t this even mentioned in the DSWEIS? The final SWEIS should address the implications of greater regulation required by a “single source aquifer”, and from there go on to conscientiously protect it.

Responsive Infrastructure = New Military Requirements

Responsive infrastructure relies on sustainable nuclear weapons certification and manufacturing capabilities, and the capability to meet new military requirements. FY06 TYSCP, p. 3-1. The DSWEIS should discuss how meeting “new military requirements” in part drives the SWEIS.

Relocate Pu-238 Operations

Page 3-4 of the FY06 TYSCP lists key ongoing activities in Nuclear Facility Consolidation as including relocation of Pu-238 Missions. Are these missions at least in part being relocated to the Radiological Science Institute? How about CMRR? Is the drive to consolidate PU-238 operations at the Idaho National Laboratory dead?

Expanded RRW Manufacturing Mission, RRW

If the RRW mission is assigned to the Laboratory, a significant development and manufacturing development program would be anticipated. FY06 TYSCP, p. 3-15. This, and RRW as whole, is omitted from discussion in the DSWEIS, which is a very serious omission and should be corrected.

The Laboratory... is poised to provide additional capacity for expanded pit production missions (for an accelerated RRW or current warheads) over the long term. FY06 TYSCP, p. 3-16. Same comment as the above.

P. 3-16. *SNM inventory may increase if the Lab's production missions are expanded.* The SWEIS should fully disclose and discuss what these expanding production missions could be, including the resulting increased inventory of special nuclear materials.

P. 3-21 states that during the Cold War LANL "avoided helpful planning tools" in its rush to deploy new-design nuclear weapons. LANL is now rushing to design and produce new-design nuclear weapons under the Reliable Replacement Warhead Program. Does this imply that LANL will continue to avoid implementing useful planning tools? If so, what might the consequences be? How does this square with efforts to correct recent LANL management failures?

P. 4-20 states that LANL has no Long Term Stewardship Program for environmental cleanup and monitoring, but nevertheless it is committed to seeking standards. The SWEIS should fully discuss and analyze this. What are the consequences of the lack of such a program? What is the plan for arriving at standards? Does the lack thereof imply no real commitment to cleanup at the Lab?

P. 4-21 states there is no funding for the D&D of excess facilities, and hence that cleanup objectives under the New Mexico Environment Department's Consent Order can't be met by the mandated date of 2015. What are the implications? What is LANL going to do about it? Will there be a concerted effort to acquire the necessary D&D funding? This is especially pertinent given that Los Alamos County clearly covets TA-21 for future economic growth, which is known to be heavily contaminated.

P. 4-22 states that cleaning up to residential or unrestricted standards is "prohibitively expensive." Does this imply predetermination of the outcome of cleanup at LANL? How will this affect the Lab's relationship with NMED? Why can't funding be transferred from the Lab's ever-growing nuclear weapons programs to meet needed and required cleanup needs? The SWEIS should fully discuss the prioritization of taxpayers' money.

P. 4-60 states that mercury is found in 5% of all sanitary plumbing traps at LANL, and that an even greater amount is found in radioactive liquid waste plumbing traps. What is being done to remediate this element that has long been known to have very dangerous human health effects? The SWEIS should fully discuss remediation of mercury contamination at the Lab, how it will be resolved, and NMED's role in that resolution.

P. 4-100 "CMRR and PF-4 provide a programmatic bridge to future plutonium facilities such as the MPF, MOX FFF, etc." The fact that the Lab is discussing how proposed facilities provide the infrastructure to implement a "MPF-Lite" facility in the ten year plan clearly indicates that the DSWEIS is deficient in its analysis of Lab programs and plans. The DSWEIS should address how the infrastructure is being built for ever-expanding plutonium operations.

P. 4-100 States: "The future mission set at Los Alamos is expected to include... Advanced Recovery and Integrated Extraction System (ARIES)." Yet this project, which receives plutonium pits shipped from the Pantex Plant for disassembly and use as nuclear weapons feedstock, is not mentioned in the DSWEIS.

P. 4-101 States “construction of the Radiological Utility Office Building [of the CMRR Project]... provides for some contingency in case the existing CMR Building experiences operating problems...” The possibilities for these contingencies must be considered in the SWEIS, as should the operating problems that prompt them.

P. 5-1 “Alternative Financing.” We know that NNSA and LANL sought “alternative financing” for the Los Alamos Science Complex. In fact, the United States Postal Service withdrew its “arrangement” with NNSA for such alternative financing for the Los Alamos Science Complex two days after we publicized it. The context of this page implies that alternative financing may apply to other proposed facilities, for example the Radiological Sciences Institute. The DSWEIS consistently states that LANL is following the mandated directives of Congress. Arguably, “alternative financing” circumvents those Congressional mandates. The final SWEIS should disclose all schemes for possible future alternative financing of all proposed facilities.

These comments respectfully submitted,

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