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By Email to: LLNLSWEIS@nnsa.doe.gov

Re: Scoping Comments on the LLNL SWEIS

Dear NEPA Document Manager:

I appreciate this opportunity to submit comments on the scope of the National Nuclear Security Administration's (NNSA) Site-Wide Environmental Impact Statement (SWEIS) for the continued operation of the Lawrence Livermore National Laboratory (LLNL) Main Site in Livermore, CA and Site 300 high explosives testing range near Tracy, CA.

Nuclear Watch New Mexico is a nonprofit watchdog organization based in Santa Fe, New Mexico. We seek to promote safety and environmental protection at nuclear facilities; mission diversification away from nuclear weapons programs; greater accountability and cleanup in the nation-wide nuclear weapons complex; and consistent U.S. leadership toward a world free of nuclear weapons.

Pursuant to the National Environmental Policy Act the purpose of scoping is: "early identification of concerns, potential impacts, relevant effects of past actions and possible alternative actions." Therefore, I ask that the analyses I am requesting be fully undertaken – and my questions fully answered – in the draft SWEIS.

First, I am skeptical of the timing of the initiation of this new SWEIS for LLNL during the COVID-19 pandemic and just before the November 3 election. As a prerequisite, the National Nuclear Security Administration (NNSA) should have already begun a nationwide programmatic environmental impact statement (PEIS) on expanded plutonium pit production which would then inform the LLNL SWEIS of the Livermore Lab's role in that national effort, which is not insignificant. Following that pit production PEIS, both a LLNL and Los Alamos National Laboratory SWEIS should proceed in parallel. It is particularly striking that NNSA is claiming NEPA compliance while relying on an outdated Complex Transformation Supplemental PEIS and LANL SWEIS, both completed in 2008, and refusing to prepare new or supplemental ones.

In my view, it is also hypocritical of NNSA to begin a new LLNL SWEIS but not a LANL SWEIS. All of the conditions are met for a new LANL SWEIS as they are for a new LLNL SWEIS, if not even more so. I can only surmise that this is part and parcel of a conscious decision by NNSA to avoid any new analysis under the National

Environmental Policy Act (NEPA) that could possibly slow down its headlong rush into expanded plutonium pit production, which is arguably illegal and will no doubt waste taxpayers' money. One need only to refer to a recent Government Accountability Office report for the obvious pitfalls there, as follows:

- As we [GAO] have previously reported, NNSA has been unable to plan for and complete major construction projects on time. It has spent billions of dollars designing and partially constructing several one-of-a-kind major capital asset projects (i.e., facilities with a cost greater than \$750 million), only to reassess and, in some cases, ultimately cancel the projects. We have reported on improvements in recent years in the execution of ongoing major construction projects, but few new major projects have been started recently.
- In the last 2 decades, LANL has twice had to suspend laboratory-wide operations after the discovery of significant safety issues. Specifically, from July 2004 through May 2005, LANL suspended operations to address pervasive safety issues. From 2013 through 2016, LANL had to pause operations at PF-4 because of concerns with the criticality safety program. A recurrence of such issues prior to the SRS facility becoming operational could affect pit production.
- A 2018 LANL study found that LANL is “marginally capable” of meeting NNSA’s plan to ramp up pit production to 30 pits per year by 2026 and sustaining that rate thereafter.
- NNSA’s October 2017 AOA [Analysis of Alternatives] to examine options for reestablishing a pit production capability stated that establishing pit production under any of the alternatives that NNSA considered, including using the facility at SRS, is unlikely to be achievable by 2030 even under the most optimistic circumstances.
- An independent March 2019 study by the Institute for Defense Analyses found that repurposing the SRS facility to produce pits by 2030 would be unprecedented—and could not find an instance where an NNSA project that cost over \$700 million was completed in less than 16 years. The study concluded that no available production option considered by NNSA—including its plan to split production between LANL and SRS—could be expected to provide 80 pits per year by 2030.¹

Thus, the draft LLNL SWEIS should explain why it exists but not a LANL SWEIS. The very title of the GAO report points the informed reader to the deep interconnectedness of LANL and LLNL, as the Livermore Lab is the design agency for the new W87-1 ICBM warhead, while the Los Alamos Lab will produce the plutonium pit bomb cores for it. But to restate, first there should be a programmatic environmental impact statement (PEIS) on expanded plutonium pit production, then followed by parallel LLNL and LANL Site-Wide Environmental Impact Statements.

The remainder of my comments focus only on the LLNL SWEIS.

¹ *NNSA Should Further Develop Cost, Schedule, and Risk Information for the W87-1 Warhead Program*, GAO, September 2020, pp. 29-31 (footnotes omitted) <https://www.gao.gov/assets/710/709253.pdf>

1. The SWEIS should analyze an alternative future for Livermore Lab; one in which the Lab does more unclassified, civilian science work and less work on developing new and modified nuclear bomb designs. The Federal Register Notice, posted in the NNSA reading room, states that this SWEIS will guide activities at Livermore Lab for the next 15 years or more. It is therefore a responsibility of the agency to fully analyze an alternative path so that the environmental impacts of civilian science research can be compared to the impacts of nuclear weapons activities – and decision makers and the public alike will have these facts in hand when making decisions.
2. The NNSA “Scoping Meeting” slides on the SWEIS posted in the agency’s reading room state that the document will include “Approximately 55 new facility construction projects...” The SWEIS should be clear about which new facilities will be used for nuclear weapons research and development and which ones will not.
3. The Livermore Lab Main Site was placed on the Environmental Protection Agency’s Superfund list of most contaminated sites in the nation in 1987. The Livermore Lab Site 300 high explosives testing range was placed on the EPA Superfund list in 1990. Both locations have multiple chemical and radioactive contaminants that have leaked into soils and groundwater aquifers, as well as some surface waters at Site 300. Both locations have on-site and off-site contamination that is being cleaned up under the Superfund law. Both locations have cleanup activities that will need to continue for the next 40 years or more. This past contamination must be fully considered in the SWEIS. Additionally, the SWEIS must state whether any program activities considered in the document will complicate or delay any of the Superfund monitoring or cleanup underway.
4. More than 2,000 current and former Livermore Lab employees have applied through the U.S. Department of Labor’s Energy Employee Occupational Illness Compensation Program for compensation due to serious illnesses, including cancer, believed to have been caused by on-the-job exposures to radioactive and toxic materials. The SWEIS must consider worker health and safety in all of its analyses. Further, the document must consider past worker exposures when contemplating further operations with these potentially deadly materials.
5. The NNSA “Scoping Meeting” slides on the SWEIS contain the following statement: “Operational changes – Changes to tritium emissions limits and Administrative Limit for plutonium and accident scenarios.” NNSA noted in particular that the SWEIS would seek to raise the emission limit for tritium, which is radioactive hydrogen. The SWEIS should not be used to justify increasing any radioactive emissions. Instead the SWEIS should analyze an alternative in which Livermore Lab’s operations with radioactive materials are reduced or curtailed. The emission (release) limits for all hazardous materials should be reduced, not increased.
6. The Federal Register Notice for preparation of the SWEIS states that expected operational changes at Livermore Lab include: “Changes to material at risk (MAR), administrative limits, and radiological bounding accident scenarios as a result of the de-inventory of Security Category I and II special nuclear materials from LLNL, which was completed in 2012.” Weapons-usable quantities of plutonium and highly enriched

uranium were the specific materials removed in bulk quantities at that time. There must be an explicit analysis of the potential impacts of any changes to the limits instituted when these materials were removed.

7. The NNSA has testified to Congress that its number one priority is to expand plutonium pit (bomb core) production. The rationale and timing for expanded pit production is driven by the “needs” of the W87-1 warhead under development at Livermore Lab. The production sites will be at the Savannah River Site in SC and the Los Alamos Lab in NM. That said, the environmental review document for pit production at Los Alamos contains a chart that shows that site shipping plutonium from New Mexico to Livermore Lab for “material testing.” How will the plan to use Livermore for “materials testing” of plutonium affect the changes being considered for MAR and administrative limits in the SWEIS? In the past, Livermore Lab officials have said they could declare “variances” to Livermore Lab’s plutonium limits to accomplish testing of bomb cores coming from Los Alamos. Will Livermore Lab use “variances” for “materials testing” of plutonium for pit production? The SWEIS needs to detail all potential impacts of Livermore undertaking “materials testing” of plutonium and explain in detail how this activity does or does not comply with the aforementioned MAR and administrative limits.

8. Livermore Lab has separately analyzed a plan to increase the size and weight of open-air bomb blasts at Site 300 by as much as ten-fold per each blast and more than 7-fold annually. These planned high explosives detonations involve more than 100 chemically hazardous contaminants. A future alternative that foregoes these outdoor detonations with hazardous materials at Site 300 must be analyzed in the SWEIS. Additionally, an analysis must be done of the utility, cost, and environmental impacts of maintaining Site 300 when other NNSA sites perform much of the same function farther away from population centers.

9. The SWEIS must fully consider the latest data from the United States Geological Survey (USGS) on earthquake scenarios in the Bay Area near the Main Site and the Central Valley near Site 300. Both the Main Site and Site 300 are on or very near earthquake faults. The USGS has recently published analyses that show greater quake intensity and other damaging impacts (e.g. possible liquefaction) for these specific areas of California.

10. The SWEIS must fully consider the impacts of climate change. On the one hand, it must analyze Livermore Lab operations’ potential contribution to global climate change due to emissions. The SWEIS must also analyze the impact of fires and other extreme weather events related to climate change on the Livermore Lab itself. In the current firestorms of summer/fall 2020, Site 300 had to be evacuated due to the proximity of the SCU Lightning Complex Fire. These types of events may increase in severity and frequency in the coming 15 years.

11. The Federal Register Notice states that “Over the 15-year LLNL SWEIS planning horizon, NNSA has identified more than 110 excess facilities, totaling more than 1.1 million square feet, to be decontaminated, decommissioned, and demolished.” It is assumed that this includes the “High-Risk Excess Facilities” previously identified by the

Department of Energy Inspector General, but also many more facilities that pose a risk to workers and the public. Please include specific information in the SWEIS about plans to D&D each of these 110 facilities. Additionally, after \$109 million that was supposed to be used for D&D work in fiscal 2021 was instead “reallocated” to nuclear weapons projects at the Lab, please specify in the SWEIS how the Lab will prioritize this D&D work, the expected time horizon for accomplishing the planned work, and how the buildings will be maintained in the meantime.

12. The scope for the SWEIS outlined in the Federal Register Notice includes a statement of “purpose and need” for the review. In that section the NNSA claims: “The U.S. nuclear weapons infrastructure is aging and historically underfunded.” Yet, there have been substantial budget increases for NNSA and its weapons labs during both the Obama and Trump administrations. In particular, during the current administration, the NNSA budget to “modernize” is 50% higher than when President Trump took office. In the context of these funding increases, the SWEIS should fully review assertions in the Federal Register Notice that the Lab “is in need of facilities and infrastructure investments. Half of the operating buildings at LLNL are assessed as being inadequate or in substandard condition.” Why haven’t the funds received by the Lab been used to adequately maintain existing infrastructure? Is this more a question of priorities than of available funding?

13. The “purpose and need” statement outlined in the Federal Register Notice suggests that Livermore Lab is expecting ever greater amounts of funding in future years. These expectations must be made explicit and analyzed in detail. Generally speaking, expenditures of funds should be a consideration in the infrastructure work the SWEIS proposes. Perhaps some new infrastructure projects should not be undertaken when their funding demand is considered. How will priorities be determined? These considerations must be fully explored in the SWEIS. Additionally, the SWEIS should take into account the “need” for capabilities at Livermore Lab that might be duplicative of other NNSA sites.

14. Further, the “purpose and need” statement for the SWEIS is heavily dependent on the Trump Administration’s controversial 2018 Nuclear Posture Review (NPR) and its call for a costly new generation of nuclear weapons. Over the 15-year time frame of the SWEIS, the 2018 NPR will be mooted by one or more new posture reviews, potentially very different than the one issued by the current President. A new NPR could be underway even before the SWEIS process is completed. Thus, the SWEIS “purpose and need” should not be driven by the Trump NPR, which in any event is a policy document and not a law.

15. Then the “purpose and need” statement briefly notes: “LLNL will complete Life Extension Programs by conducting testing and maintenance of weapons.” This statement is left to stand without further explanation of what “testing” and “maintenance” entail. Yet, it is precisely the weapons work covered by that sentence that will create “significant impacts to the environment.” The SWEIS needs to detail the scope and timeframes of the Life Extension Programs (LEPs) planned for Livermore Lab. It also needs to explain to what extent – and in what quantities – radioactive and toxic materials

will be on site to accomplish the LEPs. And, as noted above, the SWEIS also needs to thoroughly analyze an alternative future for Livermore Lab.

Please note that my preferred method for all notices involving the SWEIS is by email. I would like to receive links as they become available, including but not limited to the Draft SWEIS, which is anticipated to be completed in spring/summer 2021.

Sincerely,

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Executive Director

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