**Stanislawsky, Ann**
**Page 1 of 1**

Dear DOE:

Here is my comment on the draft Site-Wide Environmental Impact Statement on **Livermore Lab** operations over the next ten years. The SWEIS calls for major increases in nuclear weapons design and manufacture. New **plutonium** activities include: raising the inventory from 1,540 pounds to 3,300 pounds; tripling the amount "at risk" at one time; creating prototype bomb cores for a new "Modern Pit Facility;" fissioning plutonium in the NIF mega-laser; and, vaporizing plutonium oxide on-site to separate isotopes. The SWEIS also reveals plans to increase the "at risk" limit for radioactive **tritium** 10-fold.

Please implement my wishes,

1/01.01 I oppose these actions in the SWEIS that will
2/04.01 increase nuclear proliferation and damage our
3/07.01 environment. I call on you to analyze conversion of the Lab to peaceful purposes as an alternative.

Signed: Ann L. Stanislawsky

Address: 117 Goss Ave. Santa Cruz, CA 95065

**To:**

**Mr. Tom Grim**
**DOE, NNSA, L-293**
**7000 East Avenue**
**Livermore, CA**
**94550**

**State of California, Terry Roberts, Director, State Clearinghouse**
**Page 1 of 2**

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Jan Boel
Acting Director

May 28, 2004

Tom Grim
U.S. Department of Energy
7000 East Ave., MS-L-293
Livermore, CA 94550

Subject: Continued Operation of Lawrence Livermore National Laboratory & Supplemental Stockpile Stewardship & Management
SCH#: 2004024001

Dear Tom Grim:

The State Clearinghouse submitted the above named Draft EIS to selected state agencies for review. The review period closed on May 27, 2004, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

NO COMMENTS IDENTIFIED IN THIS SUBMITTAL

**State of California, Terry Roberts, Director, State Clearinghouse**
**Page 2 of 2**

**Document Details Report**
**State Clearinghouse Data Base**

| | |
|---|---|
| *SCH#* | 2004024001 |
| *Project Title* | Continued Operation of Lawrence Livermore National Laboratory & Supplemental Stockpile Stewardship & Management |
| *Lead Agency* | U.S. Department of Energy |
| *Type* | EIS Draft EIS |
| *Description* | LLNL consists of two sites: an 821-acre site in Livermore, California (Livermore Site); and a 7,000-acre experimental test site near Tracy, California (Site 300). Most LLNL operations are located at the Livermore Site. LLNL also conducts limited activities at several leased properties near the Livermore Site. |

**Lead Agency Contact**

| | | | |
|---|---|---|---|
| *Name* | Tom Grim | | |
| *Agency* | U.S. Department of Energy | | |
| *Phone* | 925-422.0704 | *Fax* | |
| *email* | | | |
| *Address* | 7000 East Ave., MS-L-293 | | |
| *City* | Livermore | *State* CA | *Zip* 94550 |

**Project Location**

| | | | | |
|---|---|---|---|---|
| *County* | Alameda, San Joaquin | | | |
| *City* | Livermore | | | |
| *Region* | | | | |
| *Cross Streets* | East Ave. and Greenville Rd. | | | |
| *Parcel No.* | | | | |
| *Township* | *Range* | *Section* | *Base* | |

**Proximity to:**

| | |
|---|---|
| *Highways* | I-580 |
| *Airports* | |
| *Railways* | Union Pacific |
| *Waterways* | South Bay Aqueduct |
| *Schools* | |
| *Land Use* | MP - Industrial Park |

| | |
|---|---|
| *Project Issues* | Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Cumulative Effects; Economics/Jobs; Fiscal Impacts; Flood Plain/Flooding; Geologic/Seismic; Landuse; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Other Issues; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife |
| *Reviewing Agencies* | Resources Agency; Department of Fish and Game, Region 2; Department of Fish and Game, Region 3; Department of Conservation; Integrated Waste Management Board; Regional Water Quality Control Board, Region 2; Regional Water Quality Control Bd., Region 5 (Sacramento); Department of Toxic Substances Control; Office of Historic Preservation; Department of Parks and Recreation; Caltrans, District 4; Caltrans, District 10; Department of Health Services; California Energy Commission; Native American Heritage Commission |

*Date Received* 02/27/2004 *Start of Review* 02/27/2004 *End of Review* 05/27/2004

Note: Blanks in data fields result from insufficient information provided by lead agency.

**Sterner, Andrea**
**Page 1 of 1**

**Draft Site-wide Environmental Impact Statement for Continued Operation of Lawrence Livermore National Laboratory and Supplemental Stockpile Stewardship and Management Programmatic Environmental Impact Statement**
**U.S. Department of Energy**
**National Nuclear Security Administration**

**Written Comment Form**
*Must be received on or before May 27, 2004.*

1/33.01 Not only is increased plutonium not necessary for our national defense, it is also extremely expensive + poses

2/23.01 a serious safety risk to the safety of people in the densely populated San Francisco Bay area.

- Andrea Sterner
13220 Yates Ford Rd.
Clifton, VA 20124

Please use other side if more space is needed.

Comment forms may be mailed to:
Mr. Tom Grim
Document Manager
National Nuclear Security Administration
Livermore Site Office, L-293
7000 East Avenue
Livermore, CA 94550-9234

Comment forms may be faxed to:
Mr. Tom Grim
(925) 422-1776

**Stevenson, Bill and Maria**
**Page 1 of 1**

1515 Shasta Drive, #1325
Davis, CA 95616
April 26, 2004

Mr. Tom Grim
DOE, NNSA, L-293
7000 East Avenue
Livermore, CA 94550

Dear Mr. Grim:

1/01.03 Our government has been concerned about weapons of mass destruction being harbored by such "rogue" nations as Iraq, Iran and N. Korea. We are equally disturbed by the huge stockpile right in our own backyard.

More than a decade after the end of the Cold War, our government is considering doubling plutonium work at Lawrence Livermore National Lab and working with almost ten times the radioactive tritium it does now. If that happens, Livermore could become the world's 6th largest nuclear power, matching France's arsenal—a boost that shocks proponents of nuclear disarmament.

2/04.01 The DOE's draft site-wide Environmental Impact Statement on Livermore Lab's planned operations for the next 10 years revives a project canceled more than 10 years ago because it was dangerous and unnecessary. The plan will add plutonium, highly enriched uranium and lithium hydride to experiments in the National Ignition Facility megalaser when it is completed, making the NIF more hazardous to workers and environment and a nuclear proliferation nightmare. The plan also seeks to ready the nation to conduct full-scale underground nuclear tests - a dangerous return to unrestrained nuclear tests.

It is immoral to use our technological expertise to produce new nuclear weapons and bio-warfare agents that can kill innocent people as well as terrorists. We help spread terrorism, fear and hatred by providing terrorists with the means and motives to

3/01.01 retaliate. Let's work toward international disarmament.

Sincerely,
Bill & Maria Stevenson

**Stevenson, Martin**
**Page 1 of 1**

Martin Stevenson
845 Norma Way
Santa Barbara, CA 93111

May 20, 2004

Mr. Tom Grim
DOE, NNSA L-293
7000 East Ave.
Livermore, CA 94550

Dear Mr. Grim:

1/04.01 I am writing in opposition to the proposed nuclear weapons development and new plutonium and tritium programs at the U.S. Department of Energy's (DOE) Lawrence Livermore National Laboratory (LLNL).

2/01.01 Aside from questions as to the military necessity or usefulness of these weapons, their ultimate effect can only be to increase our danger. As has often been demonstrated, whatever technological marvels the United States can accomplish will be duplicated by other countries. When we develop awesomely dangerous weapons we gain only a short term advantage. Others soon learn how to make them and they end up increasing the serious dangers we already face from nuclear proliferation.

There is another compelling reason for not resuming nucear weapons development and testing. Just by doing so we immediately become less secure because we undermine the critical international effort to control nuclear proliferation.

3/07.01 Developing these weapons is not only a waste of our resources. It is a BAD IDEA, making us less -- not more -- secure. Instead of proposing new weapons projects, DOE should enhance the peaceful, civilian scientific capabilities and mission at Livermore Lab by proposing new, unclassified programs in environmental cleanup, non-polluting and renewable energy, earth sciences, astrophysics, atmospheric physics and others. The alternative of a "green lab" in Livermore should be pursued instead of the dangerous nuclear weapons future proposed by the Site Wide Environmental Impact Statement.

Sincerely,

Martin Stevenson

**Stocking, Dale E.**
**Page 1 of 1**

Dear Mr. Grim:

1/31.02 Due to an increased amount of radioactive material that will be shipped to the site through and around Tracy/San Joaquin County and increasing urban encroachment on the site, I request that the comment period for the Draft LLNL SW/SPEIS be extended.

Thank you.

Dale E. Stocking
808 Bristol Avenue
Stockton, CA 95204
dalehiker@comcast.net

**Stone, Richard E.**
**Page 1 of 1**

SIRS;

1/33.01 Please give your attention to the referenced article. The NNSA staff is attempting to turn a research facility (LLNL) into a production facility, and those proposing this don 't know a glovebox from a breadbox. They are seriously increasing CRITICALITY hazards
and radiation hazards to everyone in the surrounding area. I am in favor of nuclear power, and in favor of waste storage at the Yucca Mtn. site in Nevada, but I am strongly opposed to tripling,(from 20Kg to 60Kg) of Pu in any lab room in Bldg 332, the Plutonium
facility. If anything, the Laboratory should greatly reduce its Pu inventory. I am a retired chemist with 35 years experience in the nuclear industry, 26 years at LLNL.

Sincerely, Richard E. Stone

Please see: <www.trivalleycares.org/SWEISletter.asp>

**Strauss, Peter M.**
**Page 1 of 6**

**Comment of Peter M. Strauss**
**April 27, 2004**

1. My name is Peter Strauss, President of PM Strauss & Associates. My office is located in San Francisco at 317 Rutledge St. I've been a technical advisor to Tri-Valley CAREs since the early 1990's. Most of my work focuses on the cleanup of the main site and Site 300. However, I have done independent analyses of plutonium use at the Lab, the Uranium Atomic Vapor Laser Isotope System, and the Biosafety Level 3 Laboratory. TVC has requested that I review this Site Wide Environmental Impact Statement (SWEIS).
2. For the purpose of saving time, I'm going to concentrate on two subjects: the accident analysis contained in the SWEIS and ramifications for Site 300. Tri-Valley CAREs will be submitting more comprehensive comments later on.

**Accident Analysis**

1/25.06 3. I have concluded that the accident analysis is deficient, and would considerably underestimate the consequences of a major accident. It should be noted that historically, the Defense Nuclear Facilities Safety Board (DNFSB) has criticized LLNL operations, particularly (but not exclusively) regarding the plutonium facility (Building 332). Most recently the DNFSB strongly criticized LLNL's accident analysis. Attached to this document are some excerpts from Staff Issue Reports. I note that as far back as 1995, the DNFSB required shutdown of plutonium Building after important safety measures were missed. This shutdown lasted for six months until a ventilation system and emergency generator were added. In a 1997 letter from the Defense Nuclear Facilities Safety Board, John Conway, its Chairman stated that the number of criticality infractions at B-332 "raise questions as to whether DOE-OAK is staffed with the technical capabilities necessary to provide guidance" and "neither DOE-OAK nor LLNL management appears to recognize or fully appreciate all of the problems of hazardous work control" (Letter from John T. Conway, Chairman of DNFSB to Federico Pena, Secretary of Energy, December 31, 1997). *

2/25.07

3/25.08 4. The airplane crash scenario assumes that only a small single engine aircraft would be involved in an accident. The analysis only included airfields within 22 miles, thereby excluding commercial jet liners originating from San Jose, Oakland, San Francisco International Airport, Sacramento, and military aircraft originating from Moffett Airfield. These airports are all within 50 miles of LLNL. The airplane accident scenario needs to be recalculated, assuming that a commercial airliner crashes into one of the buildings. Assuming a large plane crash may dominate bounding accident scenarios. *
5. Under unfavorable meteorological conditions, the probability of an air crash would increase. This is not reflected in the accident scenarios
6. For different accident scenarios, the frequency of airplane crashes changes. Please provide an explanation.

**Strauss, Peter M.**
**Page 2 of 6**

3/25.08 cont. 7. Derivation of accident frequencies, except for airplane crashes, are not provided. *

4/30.02 8. None of the intentional acts that could cause a release (e.g., terrorist attack, theft) are analyzed in this document. Instead, NNSA states that this is a separate analysis and is classified. While I understand that there is some need to classify some information regarding terrorist attacks and security, I am very concerned that security systems and personnel are not adequate to prevent intentional releases. The SWEIS needs more detail about the security force, its training, and what types of equipment are available to it. It also should discuss the range of scenarios that were analyzed, and provide a qualitative analysis. This method is recommended by the DOE Office of NEPA and Policy Compliance, Recommendations for Analyzing Accidents Under NEPA, Final Guidance, July 2002, Attachment 1.*

5/25.07 9. In the bounding accident for B-332, (unfiltered room fore), certain assumptions are made such as the airborne release fraction (i.e., the amount that would disperse into the air as a result of this accident scenario) (ARF) is 0.00005 and the leak path factor (LPF) is 0.05. We believe that a more conservative approach is to assume the leak path factor is between 0.5 and 1, which would double the release. (In its 2004 letter to NNSA, the DNFSB also criticized the LPF calculation, noting that the "calculated LPF of 5 percent is unrealistic and probably underestimates the extent of a release from unfiltered radioactive material from this facility.") I also question how the ARF was derived. These variables are fundamental in deriving health effects, and each should be clearly stated for each accident, and all assumptions should be clearly stated.*

6/25.01 10. The bounding accident scenario for B-332 is the unfiltered fire in one room, with a material at risk (MAR) of 60 kg of plutonium. However, the administrative levels allow 60 kg in each of two rooms. The detailed analysis of a plane crash does not provide the MAR, but we would think that it should be 120 kg of Pu, with a disturbance in two rooms. If this is correct, would the plane crash become the bounding scenario?
11. A hydrogen deflagration accident has nearly five times the source term as the unfiltered fire, and a greater estimated probability. This would point to it as being the bounding accident for B-332. Please conduct a detailed analysis of this scenario.
12. Facilities 331 and 332 have emergency diesel generators (EDGs) to provide power in the event of an interruption in power supply. During the 1990's, the EDGs at B-332 failed routine tests five times. The accident scenarios should not presume that the EDGs will be working, both to run the ventilation system and other emergency equipment. A credible scenario of an unfiltered fire with no power should be analyzed. *

7/25.05 13. Only latent cancer fatalities are reported. If any of the accidents were to occur, there would be other severe effects that would result, including non-lethal cancers and a number of diseases. Because of the isotopes involved,

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**Strauss, Peter M.**
**Page 3 of 6**

7/25.05 cont. (e.g., highly enriched uranium and plutonium) the residual risks of disease from an accident would last centuries. The accident analysis does not appear to consider this.*

8/25.06, 25.01

14. In addition to severe health effects, an accident could cause extensive economic and social disruption. For example, prime agricultural land may be restricted, and cleanup costs, both on-site and off-site would be substantial. For reference, the cleanup of Three Mile Island cost approximately $1 billion.
15. HEPA filters are assumed to mitigate most accident scenario releases. However, during a fire, both the filter and the seal are prone to failure, as the filter is made of paper and would lose its filtering capability when wet (fire suppression) and would be severely damaged by high temperatures.

9/25.01

16. A fire in B-334 involving HEU is not analyzed in detail. Because 100 g are the source term, we recommend performing a detailed analysis of this accident scenario.

8/25.06, 25.01 cont.

17. The SWEIS fails to document and take account of environmental effects in its accident analysis. This is recommended by US DOE Office of NEPA Policy and Compliance, Recommendations for Analyzing Accidents Under NEPA, July 2002, p. 3.

10/25.04

18. Would increase in amount of Pu and material at risk have any additional concern with regards to the BSL-3 proposal? For example, if the worst case accident occurred at Building 332, please detail how hazardous materials or biological agents would be secured while personnel in other buildings were being evacuated.

11/25.02

19. Chlorine gas is stored on-site. A release could disable security forces and personnel, so that an accident could occur while hazardous materials are being used. Please explain how operations could be safely shutdown if there was a leak of chlorine gas and another disabling chemical stored on site. In addition, an analysis of an accident involving these substances is in order.

**Site 300**

12/17.07

1. For Site 300, it does not appear that a massive wildfire has been analyzed. This would be a fire that could not be controlled by the fire fighting force. This scenario has been brought to your attention in public comments on the Site 300 Site Wide Record of Decision.*

13/17.01

2. At Site 200 under no action, there is assumed release 194 Ci of tritium. There were no releases in 2001. We have been informed in other forums (i.e., remediation activities) that little or no tritium is planned. Please explain this discrepancy. *
3. At military bases all over the country, there is a demand that environmental laws and regulations be modified in order for the military to train and perform its mission. Demands are made that Endangered Species Act, noise controls, and the Clean Air Act be relaxed for military bases and that local zoning makes sure that the residents do not move too close to bases. This issue is

3

**Strauss, Peter M.**
**Page 4 of 6**

14/09.03 called encroachment. At Site 300, Tracy hills development is planned approximately 2 miles from boundary. At the southern boundary there are ranches. With increased shots, tritium releases, DOE should address the issue of encroachment.

15/16.02

4. At Site 300, the wetland removal (termination of surface water discharge) would eliminate breeding ground and potential habitat for the red-legged frog, a federally protected species. With regards to wetlands, the PA Proposed termination of surface water releases for an artificial wetland at Building 865 would impact Red Legged frogs since it has been a known breeding location for 6 years. Termination of water to a small, artificially maintained wetland at Building 801 would eliminate a potential breeding site for this frog species, although no California red legged frogs occur at this site. Elimination of very small wetlands associated with the cooling towers at Buildings 851 and 827 would eliminate two low-quality habitat locations for the California red-legged frog where frogs have not been observed for the past 6 years. Proposed termination of surface releases at Buildings 865, 851, and 827 was coordinated with the USFWS and received approval contingent upon implementation of mitigation measures in a recent Biological Assessment and related Biological Opinion (Jones and Stokes 2001, USFWS 2002b). Please provide document submitted to the USFWS.
5. This proposed termination may start as early as 2004 (LLNL 2003ab). LLNL is proposing to mitigate the 0.62-acre artificial wetland removed by continued operations at Site 300 under the Proposed Action, by enhancing selected areas and increasing breeding opportunities for the California red-legged frog. A minimum of 1.86 acres of wetland habitat would be enhanced and managed for these two species. Mitigation sites for potential enhancement include the wetlands at the seep at the SHARP Facility and Mid Elk ravine. Please identify, in **Appendix F**, all areas that would be affected.

16/16.03

6. There are over thirty animal species and numerous plant species that are listed at least as species of concern, are listed in the migratory Bird Act, or the Endangered Species Act... The EIS fails to clearly state how operations will be managed to ensure that the habitat and breeding of these plants and animals is not disrupted. *

17/04.02

7. The proposed Energetic Materials Processing Center located at the Site 300 process area would include the construction of a new 40,000-square-foot processing facility and four magazines: two capable of storing 1,000 pounds of high explosives and two capable of storing 500 pounds of explosives (Section 3.3.8). Please indicate what type of explosive material is anticipated. *

18/18.01

8. Relating to the above question, the groundwater emanating from the current high explosives process area (Building 812) is contaminated with RDX, perchlorate, nitrate and TCE. Please explain how LLNL plans to manage waste disposal so that this will not occur again.

19/22.02

9. Table D.3.2.12 indicates that lithium hydride is stored at Site 300. Please indicate how much is stored and what it is used for.

**Strauss, Peter M.**
**Page 5 of 6**

9. Table D.3.2.12 indicates that lithium hydride is stored at Site 300. Please indicate how much is stored and what it is used for.

5

**Strauss, Peter M.**
**Page 6 of 6**

**Excerpts from Defense Nuclear Facilities Safety Board Letters and Staff Reports Concerning LLNL**

- *April 11, 2002* – "The main issue outlined in the Board's letter of December 21, 1999, to DOE was the vulnerability of the Building 332 EPS to singlepoint failures that would trigger the subsequent loss of one or more of the four separate downstream safety-class systems requiring emergency power. The staff observed that single- point failures still exist in the present EPS, including the example explicitly cited in the Board's previous letter. Furthermore, it appeared that the laboratory has made few tangible attempts to remedy system vulnerabilities associated with single-point failures."

  **"Conclusion.** The staff observed at LLNL a fundamental lack of understanding of system vulnerabilities in the Building 332 EPS."

- March 25, 2003 "*Building 332*—The Board's staff reviewed the current facility SAR and Technical Safety Requirements (TSRs), dated August 2002, and noted a number of inadequacies and weaknesses. These inadequacies included postulated accident scenarios for which unmitigated consequences had been evaluated to exceed the off-site evaluation guidelines, but for which no safety-class controls had been identified. ….The following specific examples illustrate the issues identified by the staff:

  ! The hazard analysis for the unmitigated rupture and subsequent fire of a waste drum containing transuranic waste had resulted in consequence estimates that exceeded the off-site evaluation guidelines by a factor of 20. However, no safety-class or safety significant controls had been identified for this scenario.

  ! The fire suppression system for Building 332 had been functionally classified as safety class. Water essential for the operation of this system was being provided by a combination of off-site sources that are not under direct LLNL control and an emergency water source housed in the facility basement. Given the critical importance of preventing the development of fire-related accident sequences in this facility, it did not appear that all reasonable steps had been taken to understand, justify, and ensure the adequacy, in terms of reliability and availability, of the Building 332 fire suppression water supply. In particular, the boundaries of this safety-class system are not well defined in current safety basis documentation. Furthermore, the compressed air system that is necessary to provide the motive force for the emergency water source had not been functionally classified with respect to this important safety function. The compressed air system also supported other safety-related features at the facility.

  ! The fire analysis had not developed an appropriate unmitigated analysis for a postulated fire in a certain area of Building 332

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