nuclear watch new mexico

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Dear Mr. Mortensen,

Nuclear Watch of New Mexico (NWNM) submits the following comments on the draft Environmental Assessment (EA) (DOE/EA-1442) for The Proposed Biological Safety Level (BSL)-3 Laboratory at Lawrence Livermore National Laboratory (LLNL).[1] NWNM greatly appreciated your consideration of a comment period time extension and then your rapid granting of that extension.

Purpose and Need Factually Misleading

The Purpose and Need for Agency Action is self serving and factually misleads members of the public and decision makers in such a manner that it completely fails to fulfill the National Nuclear Security Administration's (NNSA) obligations under the 1969 National Environmental Policy Act, 42 U.S.C. § 4321, et seq. (NEPA). NWNM asserts that the Purpose and Need for Agency Action is hinged upon "NNSA mission requirements" which have never undergone a NEPA review.[2] Until a complete NEPA review of the NNSA Chemical and Biological National Security Program (CBNP) is conducted, the proposed agency action at LLNL is without justification. The need for a Programmatic Environmental Impact Statement (PEIS) will be addressed further on in these comments. Furthermore, the Draft EA makes the claim that "The importance of work performed for NNSA in bioscience research and development in support of its national security WMD [weapons of mass destruction] non-proliferation mission is increasing."[3] The EA goes on to say that "DOE [Department of Energy] does not currently have under its administrative control within the DOE complex any microbiological laboratory facility capability beyond BSL-2, but BSL-3 laboratories are proposed at Los Alamos National Laboratory."[4,5] The Purpose and Need does not take into account the fact that the DOE willreportedly begin construction of the Los Alamos facility in October 2002. Furthermore, the only significant difference between the LLNL proposed action and the LANL action is LLNL's addition of a 3rd BSL-3 laboratory which will house rodent cages and the capability to conduct aerosol challenges on those rodents.[6] The LLNL Draft EA goes on to claim that "Work at each of the national laboratories is expected to compliment rather than be duplicated at each of three national laboratories."[7] If that is the case, why propose a facility that is in many respects duplicative of the LANL facility? Why not construct a facility with two BSL-3 laboratories, one for aerosol challenges (which does not duplicate capabilities at LANL) and another for non-aerosol related support work? Obviously, LLNL needs to further clarify why the proposed facility does not represent a duplicative action to LANL's action. Should LLNL fail to do, it would not have met the requirements promulgated under NEPA.

Facility Safety and Security

1. General Comment

NWNM finds the omission of preliminary safety and security plans and procedures as part of the NEPA review process a grave oversight. While we recognize that such documents are "living" and subject to change, preliminary plans should be included in the NEPA discussion for the very reason that LLNL will use these non-existent documents as basis for the determination of the Finding of No Significant Impact (FONSI). Basing a FONSI on non-existent safety plans avoids the "hard look" at socio-environmental impacts that NEPA requires. Furthermore, there is no evidence that LLNL has conducted a preliminary hazards analysis (PHA) for the proposed facility. Because of the precedence of the proposed facility, the omission of even a simple PHA is an egregious oversight that puts into question the entire NEPA process for the proposed LLNL action, particularly when these essential documents "would provide the key documentation framework for the operation of the BSL-3 facility."[8] Nor would it suffice for the agency to incorporate by reference, or any other method, the PHA prepared for the EA on the proposed BSL-3 facility at Los Alamos National Laboratory (LANL) because the proposed LLNL facility incorporates a single but substantial difference in facility design. Namely, one laboratory in the proposed LLNL facility is designed for aerosolization challenges and the LANL facility cannot conduct any type of work that would produce anything other than incidental aerosolization.[9,10]

2. Physical Security

The Draft EA states "Physical security of the facility building would be implemented commensurate with the level of work being performed. The facility safeguards would be based upon a security analysis conducted during the project planning stage."[11] The NEPA documentation (a significant aspect of all planning) for a facility such as the proposed, one that will conduct research on biological agents "historically used for bioweapons," should include more than a cursory discussion of the physical security safeguards that would be taken at the facility.[12] Additionally, a recent Congressional study found that the armed guard forces level for LLNL has dropped by 12 percent.[13] How will LLNL addresses these two issues, first that LLNL proposes to hold inventories of biological agents that have bioweapons applications which makes the proposed facility a desirable target for theft or even attack by terrorists (particularly given its proximity to high density populations), and secondly that the armed forces guarding LLNL have decreased over the past decade? This matter requires consideration, and though NWNM does not believe that specific details should be released that could conceivably jeopardize facility security, a general discussion of preliminary security measures must be included in the EA. The Draft EA fails to do this.

3. Catastrophic Events

Terrorism

Nowhere in the LLNL Draft EA is there is discussion of the risks associated with terrorism, or any possible method to mitigate such risks. Traditionally terrorist acts have not been considered as reasonably foreseeable events in DOE NEPA analyses. But in the post 9/11 world, that can no longer be claimed, and DOE and NNSA are themselves reluctantly admitting the security risks their activities face against this emerging threat.[14] As is stated above, the proposed biological agents to be studied at the LLNL BSL-3 facility are those that are historically used for bioweapons. This makes them of great potential interest to terrorists. Furthermore, given the proximity to the large population center of the Bay Area, the proposed LLNL BSL-3 is an even more desirable target for terrorists. Though recognizing that threats such as acts of terrorism are poorly defined, measures

must be taken in order to address the more plausible avenues of attack. A general description of these measures (while at the same time NWNM recognizes the need for caution when describing these measures) MUST be included in the NEPA analysis of this proposed facility. NNSA has fallen into the realm of complete irresponsibility by failing to address this grave danger.

Unlike the NNSA, the U.S. Department of the Army (DA) addresses this issue in a comprehensive manner, even though the DA asserts that the chance of terrorist attack is not "reasonably foreseeable." In its Final Environmental Impact Statement (FEIS) for the Life Sciences Test Facility (LSTF) at Dugway Proving Grounds, Utah, the DA did provide an analysis of the risks associated with terrorism, and discussed how the DA would minimize those risks.[15] The DA states that "The possibility exists that sabotage could be directed at the LSTF with intent to cause a release of biological materials. However, several factors prevent or mitigate the likelihood that a saboteur would gain access to the LSTF." Those factors, in summary, are:

LSTF is a great distance from the patrolled Dugway Proving Ground perimeter,
A manned guardhouse on the road at perimeter entrance,
A second guardhouse is located at the entrance to the technical area that is home to the LSTF,
A personal and vehicle checkpoint,
An intrusion detection system will surround LSTF,
Card reader devices for BSL-2 and BSL-3 areas,
Only 3 people will have direct access to biological material storage area.[16]

Furthermore, as was demonstrated by news headlines on www.msnbc.com, even the formidable security features of DPG can be breached. According to DPG and msnbc.com reports, a single man was able to gain access to the massive chemical weapons storage and disposal sites.

Internal Threats

As more evidence becomes available, it is clear that at least the *bacillus anthracis* used in the October 2001 anthrax attacks was cultured from the U.S. Ames Strain. Furthermore, evidence suggests that the *b. anthracis* was from a U.S. biological defense research laboratory, presumably one operated by the DA. In FEIS for the LSTF, the DA considered both acts of terrorism as well as internal employee sabotage and/or theft.[17] The point here is obvious for the careful reader. The DA considered terrorism and internal sabotage possible threats a decade before terrorists attacked on U.S. soil. Though the DA did not believe that such events were initiating, in terms of NEPA analyses, they did nevertheless provide a fairly detailed discussion of the methods that would be used to mitigate such risks. The DA states that "a disgruntled, emotionally distraught, or disloyal employee theoretically could gain the required confidence of coworkers to obtain and release materials maintained at the LSTF. Of primary public health and environmental concern is the possibility that an employee might secretly remove materials from the facilityand disseminate them in public places or the environment."[18] Clearly the stakes are greater in the post 9/11 world and after the October anthrax attacks, and consideration of both terrorism and internal threats must be considered in LLNL's NEPA analysis for the proposed BSL-3 facility.

Earthquakes

NWNM is not satisfied with the analysis given to the threat of earthquake damage to the facility. The Draft EA makes unsubstantiated claims and uses references (such as the DA) which upon more careful examination do not paint the picture as black and white as the Draft EA makes it out to be. LLNL's Draft EA asserts that "Accident scenarios usually envisioned for DOE facilities would normal-

ly be seen to exacrbate or enhance a release or spread of the hazardous materials, but for the BSL-3 facility would potentially render these materials innocuous (heat, fire, sunlight, and wind). These would be avoided when working with microorganisms and would usually result in microorganisms being killed. Consequently, catastrophic events such as earthquake, fire, explosions and airplane crashes, normally considered as initiating events in DOE radiological or chemical accident analyses, were viewed as having the potential to actually reduce the consequences of microbiological material releases."[19] Though portions of this statement ring true to the DA's findings, such as extreme fire and explosion, coupling this claim with the statement that "The probability of catastrophic events (due to earthquake) is already very low" grossly misrepresents the conclusions that the DA came to in their study of the Dugway Proving Ground (DPG), which is in a very seismically active area.

The DA found that DPG was at risk to a local ground motion at its LSTF of "5.6 to 6.9 on the Richter scale." The DA considered the chances of such an event has a probability of occurring once every 100 years, at a minimum.[20] In its Seismic Risk Analysis, the DA found that the most likely event would be from a distant fault with high attenuation in the direction of the LSTF. The DA stated that "Because the consequences of an LSTF facility failure related to a seismic event would be severe, the design parameters should reflect the worst event regardless of the probability of occurrence." The DA continued by stating that the distant Wasatch Fault has an acceleration attenuated to the site of between 0.35 and 0.45 g associated with a 250 year event and a velocity range between 35 and 45 cm/sec. From the implied Modified Mercalli Intensity Scale, it can be assumed that a velocity range between 0.35 and 0.45 g would result in an event between VIII and IX intensity at the LSTF site. Considerable damage to buildings and even ground cracking may be expected at these intensities." [21,22] These findings prompted the DA to conclude that LSTF must be constructed to the highest seismic building codes.

Arguably, the region surrounding the DPG complex is less seismically active than that surrounding the San Francisco Bay Area. According to a recent study conducted by the U.S. Geological Survey (USGS), the Bay Area has a "70 percent chance of an earthquake of 6.7 or greater" on the Richter scale from 2000 to 2030.**[23]** The Mount Diablo Thrust, Greenville, and Calaveras Faults have a combined probability of 37 percent chance of 6.7 or greater event (including a 9 percent chance of occurrence for unknown or unmapped faults in the region).[24] All these faults run in very near proximity to the LLNL. An event of such a magnitude would be at least a Modified Mercalli Intensity Scale IX, the highest probability considered by the DA. Furthermore, the chances are much greater that events of this magnitude will occur at the LLNL site than the DPG site. In 1980, a 5.9 event occurred on the Greenville fault that caused $10 million worth of damage to the LLNL, according to the USGS.[25] This event registered VII on the Modified Mercalli Intensity Scale, at least a magnitude smaller than the probable event forecasted to occur during the life-cycle of the proposed BSL-3. Yet, this event still caused substantial damage to LLNL and the surrounding region.

Given this evidence, it is inexcusable that LLNL does not provide a thorough seismic risk analysis for its proposed BSL-3 facility. Further, the DA's findings for potential aerosol release are not entirely applicable to the proposed LLNL BSL-3 facility. Though it would require a substantial amount of energy to aerosolize microorganisms in the proposed BSL-3 facility, conceivably an event of 6.7 magnitude (M) or greater could provide that energy. The Draft EA provides no explanation as to why this scenario (certainly a 37 percent chance over a 30 year period is a credible event) was not considered. Given the population density of the LLNL complex and its locale to the city of Livermore, there is a heightened risk of worker and public exposure resulting from a catastrophic event such as a 6.7M or

greater event. Aerosol clouds would not have to travel the great distances that were analyzed in the DA DPG FEIS, thus making it much more likely that the required human infectious dose (HID) would still exist when the aerosol cloud reached members of the populace.

HEPA Filters

Proper HEPA filtration is essential to the safe operation of the proposed LLNL BSL-3 facility. Yet, there is no description of how LLNL will ensure that HEPA filters are installed properly. Proper installation is vital to the effectiveness of HEPA filters. The DOE has been plagued by sloppy HEPA filter installation and maintenance as is evidenced by historical documents. It behooves LLNL to demonstrate an effective plan that will ensure that HEPA filters are installed properly, are functioning as designed, and furthermore, there should be some kind of warning system that would alert the BSL-3 personnel should the HEPA filter bank fail.

Additionally, what is the size range for the proposed microorganisms or related aerosol particles? Reportedly, HEPA filtration efficiency diminishes down to 90 percent when particles are 0.1 micron. Do any of the proposed microorganisms fall within that range?

4. Facility Size

The Draft EA states that "The BSL-3 facility would not be a large-scale research or production facility, which is defined as working with greater than 10 liters of culture quantities."[26] Yet, according to cited Centers for Disease Control (CDC) definitions, the proposed LLNL BSL-3 facility is certainly not a small facility.[27] The LLNL Draft EA states that only 6 workers occupying the facility.[28] How many of these workers would simultaneously act as principle investigators (PI)?

5. Biological Fermentor

What role, if any, will the Environmental Microbial Biotechnology Facility's 1500 liter biological fermentor play in microorganism research at the proposed BSL-3? Given the reportedly close proximity to the proposed BSL-3 facility, this could present a bad international example of U.S. commitment to the Biological and Toxin Weapons Convention. What assurances will LLNL give that this biological fermentor will not be used for industrial scale production of biological select agents or other types of genetically modified microorganisms that have potential weapons applications?

The Need for a Programmatic EIS For the NNSA's Chemical and Biological National Security Program

The National Nuclear Security Administration (NNSA), lead agency for the LLNL BSL-3 Draft EA, has already initiated a well defined program through its Chemical and Biological National Security Program (CBNP). The CBNP was created in 1996 when Congress passed the Defense Against Weapons of Mass Destruction Act, 50 U.S.C. § 2301, et seq. The CBNP is rapidly growing, for example: "Significant progress was made over the past year; partly because program funding was doubled from the FY99 level" [29] and the "CBNP budget increased from $18.5 M in FY 99 to $40.0 M in FY00 and retained that increase for FY01 ($42.1 M)."[30] Nor does the CBNP funding tally appear to capture the total cost for DOE activities with biological select agents. The DOE Office of Inspector General estimates that "the cost in FY 2000 of the Department's biological agent-related activities was in excess of $90 million."[31] In any event, total program funding will no doubt dramatically increase in FY02 following the recent terrorist and anthrax attacks.

This program is not new. As the NNSA states "The CBNP was initiated in 1997" with a clear "mission focus" for which "the development of requirements is a complex challenge involving governmental and non-governmental organizations at national, state and local levels."[32] The NNSA has developed a CBNP Strategic Plan [33] and recognizes that future "*programmatic* challenges" exist.[34] DOE Albuquerque officials have on at least one occasion undertaken "*programmatic* review of pertinent program documents." [35] (Emphases added.) The CBNP is multi-laboratory and spread across the nation. Those facilities identified by the DOE Office of Inspector General as having conducted biological experiments are the Brookhaven, Lawrence Berkeley, Lawrence Livermore, Los Alamos, Sandia-CA, Sandia-NM, Oak Ridge, Pacific Northwest and Idaho Engineering and Environmental National Laboratories.[36] Additionally, "Department laboratories are conducting Work-for-Others programs, Laboratory Directed Research and Development projects, and Cooperative Research and Development Agreement projects involving biological select agents and select agent materials." [37] As further indication of the reach of its potential impacts, the CBNP has already experimented on a large metropolitan and geographical area (Salt Lake City and the Great Salt Lake Basin).[38]

In sum, the CBNP is a large and rapidly growing program to which the NNSA has already committed "irretrievable resources." The program has numerous facilities located across the country that, by virtue of the materials that they work with, can have large potential impacts that could "significantly" affect the "human environment." [39] Yet, in what appears to be a clear violation of the National Environmental Policy Act (NEPA), the CBNP has not undergone public programmatic review. In these comments, NWNM attempts to make clear that that programmatic review is required.

In February 2001 the DOE Office of Inspector General released a report entitled "Inspection of Department of Energy Activities Involving Biological Select Agents." Under RESULTS OF INSPECTIONS, that office concluded:

> [T]he Department's biological select agent activities lacked organization, coordination, and direction. Specifically, the Department's activities lacked appropriate Federal oversight, consistent policy, and standardized implementing procedures, resulting in the potential for greater risk to workers and possibly others from exposure to biological select agents and select agent materials.[40]

As a result of its inspections the DOE IG Office made four primary recommendations to the DOE Under Secretary for Energy, Science, and Environment and the DOE Under Secretary for Nuclear Security [i.e., the NNSA]. The DOE IG Office recommended them to jointly:

1. Identify the types and locations of activities being conducted by the Department involving biological select agents and select agent materials.
2. Initiate actions to ensure: (a) appropriate federal oversight; (b) consistency in policy; and (c) standardization of implementing procedures for biological select agent activities being conducted by the Department. Actions, for example, could include encouraging more interagency cooperation in this area and, similar to the approach taken by the United States Army, supplementing CDC [Centers for Disease Control and Prevention] guidance regarding activities involving biological select agents and select agent materials to address situations unique to DOE.
3. Ensure that required NEPA reviews are conducted prior to the start of biological select agents and select agent materials and revised, as needed, when significant changes occur in the activities.

4. Initiate appropriate action to ensure the Department's laboratories, including those managed by the NNSA, receive timely and consistent information regarding CDC guidelines.[41]

The DOE IG report states that the Acting Director of the NNSA Chemical and Biological National Security Program generally concurred with all four recommendations. Specifically on the issue of NEPA compliance, the DOE IG report says that the "Acting Director stated that the Department is *required* to comply with NEPA. He stated that the Department will 'continue to address biological research within individual laboratory annual planning summaries and *otherwise according to Department requirements'* to ensure that that appropriate consideration is given to NEPA compliance *early in the planning process*." [42] (Emphases added.)

On the subject of "otherwise according to Department requirements," DOE NEPA Implementation Regulations, §1021.330, "Programmatic (including Site-wide) NEPA Documents," states:

(a) When required to support a DOE programmatic decision (40 CFR §1508.18 (b) (3)), DOE shall prepare a programmatic EIS or EA (40 CFR §1502.4). (Emphasis added.)
(b) A DOE programmatic NEPA document shall be prepared, issued, and circulated in accordance with the requirements for any other NEPA document, as established by the CEQ regulations and this part.

The above referenced 40 CFR §1508.18 (b) (3), "Major Federal action," states

(b) Federal actions tend to fall within one of the following categories: …
(3) Adoption of programs, such as a group of concerted actions to implement a specific policy or plan; systematic and connected agency decisions allocating agency resources to implement a specific statutory program or executive directive.

The above referenced 40 CFR §1502.4, "Major Federal actions requiring the preparation of environmental impact statements," states

(a) Agencies shall make sure the proposal which is the subject of an environmental impact statement is properly defined. Agencies shall use the criteria for scope (§1508.25) to determine which proposal(s) shall be the subject of a particular statement. Proposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement.
(b) Environmental impact statements may be prepared, and *are sometimes required, for broad Federal actions such as the adoption of new agency programs* or regulations (§150.18). Agencies shall prepare statements on broad actions so that they are relevant to policy and are timed to coincide with meaningful points in agency planning and decision-making. (Emphasis added.)

The above referenced 40 CFR, §1508.25, "Scope," states

To determine the scope of environmental impact statements agencies shall consider 3 types of actions, 3 types of alternatives, and 3 types of impacts. They include:
1. Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:…
(iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

Under "Purpose and Need for Agency Action " the Draft LLNL BSL-3 EA says that "DOE con-

ducts bioscience work at LLNL in support of its national NNSA security and science missions and in support of the CBNP [Chemical and Biological National Security Program] … NNSA needs BSL-3 laboratory capability located at LLNL." Thus, it is self-evident that the proposed LLNL BSL-3 is an interdependent part of a larger federal action, which is the NNSA's Chemical and Biological National Security Program. In turn, the proposed LLNL BSL-3 laboratory depends upon that program for its justification. It is also self-evident that the CBNP is a major federal action that has the potential to significantly affect the human environment. Just because the CBNP is an ongoing program that has not yet been programmatically reviewed under NEPA does not excuse it now from review. As NEPA states: "Actions include the circumstance where the responsible officials fail to act and that failure is reviewable by courts or administrative tribunals under the Administrative Procedures Act or other applicable law as agency action." [43]

The Department of Energy declares that "It is DOE's policy to follow the letter and spirit of NEPA; comply fully with the CEQ [Council on Environmental Quality] regulations; and apply the NEPA review process early in the planning stages for DOE proposals."[44] In contradiction, DOE's NEPA history is replete with major violations and failures to act.[45] Our present concern is further heightened by revelations that the NNSA's Chemical and Biological National Security Program has already arguably violated NEPA procedures at two of its facilities, the Chem-Bio Facility under construction at the Oak Ridge National Laboratory (proposed as a BSL-3 facility but without an environmental assessment) and a facility at Sandia-NM (whose original scope of work had significantly changed without related NEPA review).[46]

DOE was forced by citizens to prepare a Stockpile Stewardship and Management (SSM) PEIS for public review of Departmental proposals to consolidate and revitalize its nuclear weapons complex. That 1996 document said:

> This PEIS has been prepared in accordance with section 102(2)(c) of the *National Environmental Policy Act* (NEPA) of 1969, as amended (42 U.S.C. 4321 et seq.), and implemented by regulations promulgated by the Council on Environmental Policy (CEQ) (40 CFR 1500-1508) and DOE regulations (10 CFR 1021). Under NEPA, Federal agencies, such as DOE, that propose major actions that could significantly affect the quality of the human environment are required to prepare an environmental impact statement (EIS) to ensure that environmental information is available to public officials and citizens before actions are taken. *For broad actions*, such as the Stockpile Stewardship and Management Program, *a PEIS is prepared*. [47] (Emphasis added.)

Under the same NEPA requirements it should be noted that the DOE has also prepared a Waste Management PEIS, a Storage and Disposition of Weapons-Usable Fissile Materials PEIS and a Tritium Supply and Recycling PEIS.

From the perspective of required programmatic review under NEPA, Nuclear Watch of New Mexico asserts that there is little difference between the Stockpile Stewardship and Management Program and the Chemical and Biological National Security Program. Both were explicitly new programs involving the significant commitment of irretrievable resources and potentially significantly affecting the human environment. Yet one received programmatic NEPA review and one still has not. We hereby make the claim that <u>the NNSA is required under NEPA to prepare a CBNP PEIS</u>, and the agency should act quickly to do so.

Despite what seem to be clear NEPA requirements, the NNSA may still be loath to undertake a CBNP PEIS. The NNSA should be aware that public comment can be of great direct benefit to the agency. One example is that when DOE prepared a draft Los Alamos National Laboratory (LANL) Site-Wide EIS in 1998, these writers commented that the risk of wildfire was completely omitted (an incredible omission!). DOE subsequently included in the 1999 Final LANL Site-Wide EIS a risk analysis of a model fire that eerily matched the all-too-real Cerro Grande Fire of 2000. As a result, the lab took some fire prevention measures that, among other things, helped to keep the waste dumps and storage areas at Technical Area-54 from burning. In the informal words of the director of the LANL's fire rehabilitation project, the existence of that wildfire risk analysis saved the lab three critical days in determining appropriate emergency response measures while the fire raged. That analysis would not have existed without the NEPA process and related public comment.

Should the NNSA amicably agree to prepare a CBNP PEIS, Nuclear Watch of New Mexico contends that the SSM PEIS can serve as a useful model in a number of ways. First of all, the SSM PEIS provided a forum in which DOE could lay out its rationale and justification for the SSM Program. This is of analogous importance to the CBNP in that one of the major concerns expressed by the public over the proposals DOE has put forth for BSL-3 facilities is the propriety of locating a biological research facility at an institution whose historic mission has been the research and development of deliverable nuclear weapons. At the same time this is an issue that the mere appearance of which can be of international significance. DOE has emphatically and repeatedly denied that its future BSL-3 facilities would ever be used for offensive purposes. A CBNP PEIS would help to lay the programmatic foundation for such assurances. Moreover, a CBNP PEIS could help build public and international confidence through discussion of the international treaty framework governing biological select agents and by institutionalizing transparency measures for the entire program under that framework.

Another way that the SSM PEIS can serve as a useful model is that that document served both as a programmatic review and facility-specific review. This is to suggest that in the course of a CBNP PEIS the NNSA could simultaneously prepare the programmatic review that we believe NEPA clearly requires and still move forward as appropriate in the NEPA process for both the LLNL and LANL BSL-3 facilities.

A CBNP PEIS can also serve to promote needed interagency cooperation. To again quote the DOE IG Office's second recommendation, the NNSA should:

> 2. Initiate actions to ensure: (a) appropriate federal oversight; (b) consistency in policy; and (c) standardization of implementing procedures for biological select agent activities being conducted by the Department. Actions, for example, could include encouraging more interagency cooperation in this area and, similar to the approach taken by the United States Army, supplementing CDC guidance regarding activities involving biological select agents and select agent materials to address situations unique to DOE.

In Nuclear Watch of New Mexico's view, the CDC should be designated as a "cooperating agency" in a CBNP PEIS and not merely as a "supporting agency." As the lead agency in this NEPA process, the NNSA should request that designation.[48] The NNSA should be advised that to have the CDC's active participation in these NEPA processes would undoubtedly go a long ways towards alleviating public concerns over safety and health issues. In addition, given that the CDC is reportedly chronically under-funded, the NNSA should help financially support the CDC in any role that it might play as a cooperating agency.

Again in reference to the DOE IG's second recommendation (specifically to the phrase "similar to the approach taken by the United States Army") it needs to be noted that the U.S. Army prepared and released in April 1989 a Final Programmatic Environmental Impact Statement on its Biological Defense Research Program (BDRP).[49] Under "Description of the BDRP," the Army states that the "objectives of the BDRP are to develop measures for detection, treatment, protection and decontamination of potential biological warfare threat agents."[50] In a broadly similar mission, the "DOE Chemical and Biological National Security Program (CBNP) was initiated in FY1997 to engage the DOE and its laboratories more fully in the development and demonstration of new technologies and systems to improve U.S. domestic preparedness and response capabilities to chemical and biological attacks."[51] Like the Army's program, the NNSA's Chemical and Biological National Security Program is multi-facility across the nation, with the potential for significant impacts on the human environment. The Army found its PEIS "an excellent approach for considering unscheduled, unidentified future implementing actions that may have environmental impact," [52] acknowledged that the "jurisdiction" of its PEIS was "[n]ationwide," [53] and fulfilled its statutory NEPA obligations through the completion of its PEIS. In Nuclear Watch of New Mexico's view the DOE is under the same NEPA obligation to prepare a PEIS on its Chemical and Biological National Security Program, and should proceed to do so without delay.

The NNSA may perhaps argue that the present national security climate following the September 11 and anthrax attacks does not allow for the "luxury" of a programmatic EIS on its Chemical and Biological National Security Program. Even though we too recognize the increasing need for enhanced national defenses against the threat of chemical or biological attack, Nuclear Watch of New Mexico would argue otherwise. Obviously other governmental programs now exist (even present day activities at LLNL) that are addressing current issues. Also obvious is the fact that all federal agencies, even in today's security climate, are still obliged to comply with NEPA. Moreover, as the SSM PEIS illustrates, programmatic review and facility review can still occur simultaneously. Therefore, the preparation of a PEIS is not an insurmountable obstacle to the NNSA's pursuit of a BSL-3 facility at LLNL. Further, we contend that NNSA preparation and completion of a CBNP PEIS, besides meeting legal obligations under NEPA, will serve to improve the program, specific facilities (such as the proposed LLNL BSL-3 facility), interagency cooperation and public relations. We again urge the NNSA to fulfill its NEPA obligations by preparing a programmatic EIS for its Chemical and Biological National Security Program in a timely manner.

-END OF COMMENTS-

Respectfully submitted,

Colin King
Research Director

Jay Coghlan
Director

1 Predecisional Draft Environmental Assessment for the Proposed Construction and Operation of a Biosafety Level 3 Facility at Lawrence Livermore National Laboratory, Livermore, California, DOE/EA-1442, July, 2002.

2 *Ibid*., p. 7.

3 *Ibid*., p. 6.

4 *Ibid*.

5 Environmental Assessment for the Proposed Construction and Operation of a Biosafety Level 3 Facility at Los Alamos National Laboratory, Los Alamos, New Mexico, DOE/EA-1364, February 26, 2002.

6 LLNL Draft EA, p. 26.

7 *Ibid*., p. 26.

8 *Ibid*., p. 18.

9 "Preliminary Hazards Analysis for the Biosafety Level-3 Laboratory at Los Alamos National Laboratory," Los Alamos National Laboratory, LA-UR-01-1337, February 15, 2000.

10 Environmental Assessment for the Proposed Construction and Operation of a Biosafety Level 3 Facility at Los Alamos National Laboratory, Los Alamos, New Mexico, DOE/EA-1364, February 26, 2002, p. 42.

11 LLNL Draft EA, p. 15.

12 LANL Final EA, p. vii.

13 Security Gaps at Department of Energy Nuclear Weapons Facilities, Representative Edward Markey, United States Congress.

14 "Los Alamos National Laboratory (LANL) agrees with NNSA that the best overall decision to meet the post September 11 challenges for the long-term security of nuclear activities associated with [Technical Area] –18 is to move the CAT I/II [nuclear] materials to the Nevada Test Site's Device Assembly Facility." Personal correspondence from John Browne, Director, LANL to Dr. Everet Beckner, Deputy Administrator, Defense Programs, NNSA, June 28th 2002.

15 The facility reviews in the DA's FEIS is very similar to LLNL's proposed facility. Though the DA designed the facility as a BSL-4, this was done only for added safety and security. The DA states that no BSL-4 work would ever be conducted in this facility, only BSL-3 work. Additionally, the DA facility is designed for small mammal aerosol challenges with the causative agents for anthrax, Q fever, etc, just as the LLNL proposed facility.

16 Final Environmental Impact Statement, Life Sciences Test Facility, Dugway Proving Ground, Utah, Department of the Army, March 1992, p. G-14-5.

17 *Ibid*., p. A-20.

18 *Ibid.*, p. G-15.

19 Draft EA, p. 47.

20 DA DPG FEIS, p. G-24.

21 *Ibid*., Appendix III, p. 3.

22 The Modified Mercalli Scale states for:

"Intensity VIII: Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Disturbed persons in motor cars.
Intensity IX: Damage considerable in specially designed structures; well designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse, Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken." *Ibid*., p. 4.

23 "Earthquake Probabilities in the San Francisco Bay Region: 2000-2030 – A Summary of Findings," Working Group on California Earthquake Probabilities, USGS, Report 99-517, 1999.

24 *Ibid*.

25 USGS Earthquake Hazards Program, North of Livermore Valley, California 1980 01 24 19:00:09.5 UTC, 5.9M, Intensity VII, neic.usgs.gov/neis/eqlists/USA/1980_01_24.html.

26 Draft EA, p. 19.

27 LANL Final EA, BSL-3, p. A2-1.

28 Draft EA, p. 8.

29 CBNP FY00 Annual Report, NNSA Office of Nonproliferation Research and Engineering, p. 1.

30 *Ibid*, p. 45.

[31] "Investigation of Department of Energy Activities Involving Biological Select Agents," DOE/IG-0492, February 2001, p. 4.

[32] The last three quotes are from the CBNP FY00 Annual Report, NNSA Office of Nonproliferation Research and Engineering, p. 5.

[33] *Ibid*, p. 11.

[34] *Ibid*, p. 48.

[35] "Investigation of Department of Energy Activities Involving Biological Select Agents," DOE/IG-0492, February 2001, p. E-17.

[36] *Ibid*, see pp. 16, 17 and 30.

[37] *Ibid*, p. 4.

[38] CBNP FY00 Annual Report, NNSA Office of Nonproliferation Research and Engineering, p. 167 - 170.

[39] The last three quotes are phrases repeatedly used in the National Environmental Policy Act (NEPA) and implementing regulations. NEPA requires federal agencies to evaluate the potential environmental consequences of any proposed "major federal action." NEPA may require the preparation of an environmental assessment or a more comprehensive environmental impact statement. In the case of a proposed program, a broad programmatic environmental impact state ment might be required (as Nuclear Watch of New Mexico argues in these comments).

[40] "Investigation of Department of Energy Activities Involving Biological Select Agents," DOE/IG-0492, February 2001, inspection transmittal letter to the DOE Secretary.

[41] *Ibid*, p. 25.

[42] *Ibid*, p. 27.

[43] 40 CFR §1508.18, "Major Federal action."

[44] 10 CFR, Chapter X, Part 1021 - "DOE NEPA Implementing Procedures," §1021.101 "Policy."

[45] This writer has intimate knowledge of 1) DOE's past failure to prepare a new LANL Site-Wide EIS, 2) DOE's past fail ure to produce a Stockpile Stewardship and Management PEIS, 3) DOE's failure to prepare an Environmental Restoration PEIS, and 4) DOE's past failure to prepare an EIS for LANL's Dual Axis Radiographic Hydrotest Facility. As a co-plaintiff he successfully litigated against DOE on the last two issues.

[46] "Investigation of Department of Energy Activities Involving Biological Select Agents," DOE/IG-0492, February 2001, p. 23.

[47] Final Programmatic Environmental Impact Statement for Stockpile Stewardship and Management, DOE, September 1996, p. S-5.

[48] As provided for by 10 CFR (DOE NEPA Implementing Regulations) Sec. 1021.342, "Interagency cooperation" and 40 CFR (CEQ Regulations for Implementing NEPA), Sec. 1506.6, "Cooperating agencies."

[49] Although it is not completely clear, apparently the Army's decision to prepare a PEIS was forced by citizen litigation under NEPA in Foundation on Economic Trends v. Weinberger. See Final PEIS on the Biological Defense Research Program, U.S. Army, April 1989, p. 1-7.

[50] *Ibid*, p.ES-1.

[51] Final LANL BSL-3 EA, p. 2.

[52] Final PEIS on the Biological Defense Research Program, U.S. Army, April 1989, p. ES-3. This is relevant to a future DOE CBNP PEIS because as the Draft LANL BSL-3 EA states "other [DOE] facilities [specifically Sandia and Lawrence Livermore National Laboratories] may consider the construction and operation of BSL-3 facilities in the future." (p. 35.)

[53] Final PEIS on the Biological Defense Research Program, U.S. Army, April 1989, cover sheet.