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**Department of Energy  
Finding of No Significant Impact  
Relocation of Neutron Tube Target Loading Operations**

**Los Alamos National Laboratory**

**U. S. Department of Energy  
Los Alamos Area Office  
528 35th Street  
Los Alamos, NM 87544**

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**DEPARTMENT OF ENERGY**  
**FINDING OF NO SIGNIFICANT IMPACT**  
**RELOCATION OF NEUTRON TUBE TARGET LOADING OPERATIONS**  
**LOS ALAMOS NATIONAL LABORATORY**

**PROPOSED ACTION:** The Environmental Assessment (EA) for the Relocation of Neutron Tube Target Loading (NTTL) Operations, Los Alamos National Laboratory (LANL), Los Alamos, New Mexico (DOE-EA-1131), December, 1995, analyzes the Department of Energy (DOE) proposal to relocate NTTL operations from Building 209 in Technical Area (TA)- 21 to Building 450 in TA-16 at LANL. The current NTTL loading system in Building 209 does not have sufficient capacity to support the U.S. nuclear weapons stockpile management requirements. This loading system was the initial step in implementing the Nonnuclear Consolidation EA. Additional equipment had been anticipated to complete this implementation and to provide the production capability for neutron tube targets at a capacity that meets production requirements as discussed in the Nonnuclear Consolidation FONSI. The DOE needs to establish the required production capability at LANL, which must be qualified and operational by April 1998. With the availability of space at Building 450, the opportunity now exists to complete the implementation of NTTL operations within the required time frame and to further consolidate LANL tritium operations.

The proposed action is to remodel Building 450 and access selected services in Buildings 205 and 205A (i.e. the Weapons Engineering Tritium Facility or WETF), within TA-16 at LANL to perform tritium work. Building 450 would be remodeled to accept NTTL operations that would be transferred from TA-21, Building 209. The remodeling of Building 450 would include the construction of a change room addition between Building 450 and

Buildings 205 and 205A that would combine all three buildings into one. Ancillary support structures such as an electrical substation, a mechanical and electrical room, two transportable buildings and a new parking area would also be required. Once the relocation of operations is completed in approximately two and one half years, Building 450 would manufacture neutron tube targets that are essential parts of neutron generators on a production scale. The neutron generators would be used as components in certain types of nuclear weapons.

The EA compares the effects of the proposed action with the effects of performing NTTL operations in Building 209 at TA-21 (the "no action" alternative). DOE considered, but dismissed from further analysis, alternatives including the construction of a new facility at LANL and the renovation of an alternative facility to Building 450 at LANL (NTTL EA, Section 2.4, page 11). The rationale for dismissing these alternatives was based on the fact that neither of the two alternatives would reasonably meet the purpose and need for agency action to ensure that LANL would provide neutron tube targets in a timely manner at the volumes required to support the U.S. nuclear weapons stockpile.

**ENVIRONMENTAL EFFECTS:** The EA indicates that the environmental effects from constructing support structures and linking Buildings 450, 205 and 205A in TA-16 as well as relocating NTTL operations from TA-21 to TA-16 would be minimal. New construction would occur adjacent to existing buildings or in previously disturbed areas. No cultural resources or threatened or endangered species are present at the proposed construction sites. The area planned for the new parking lot is located within habitat that is suitable for Northern goshawks. The Northern goshawk is not a threatened or endangered species, but

it is a candidate 2 species under the federal Threatened and Endangered Species Act. Mitigation measures for this species would include evaluation of forest vegetation to be disturbed for potential food foraging value, evaluation of the effects of tree removals and possible alternatives, and the establishment of a central staging area for construction equipment to minimize site disturbance. No floodplain or wetland areas would be affected. No solid waste management units or surface contamination areas have been identified at the proposed site. No environmental justice issues have been identified.

NTTL operations are estimated to emit approximately 5.0 curies/yr of tritium gas. The incremental increase in the amount of tritium emissions from adding the NTTL operations to the WETF emissions would be less than 1.25 percent of the amount evaluated in Chapter 4.0 of the WETF EA (400 curies/yr). Potential health effects to workers and to the public from NTTL operations are bounded by the analysis contained in Chapter 4.0 of the WETF EA. Estimated doses to workers and to the public as well as the increased incidence of cancer from all sources of WETF operational exposures were evaluated in detail in the WETF EA. Doses to workers, co-located workers and the public from routine WETF operations were estimated to be 200 mrem/yr, 0.004 mrem/yr and  $2.1 \times 10^4$  (0.00021) mrem/yr, respectively. These doses pose a minimal health risk to workers and to the public and are well below regulatory guidelines. The highest increase in the incidence of cancer for WETF operations was calculated to be  $3.0 \times 10^{-9}$  additional cancers in the affected population. Because the estimated tritium emissions from NTTL operations would contribute only approximately 1.25 percent to the amount emitted and potentially the dose to personnel analyzed in the WETF EA, NTTL operations are expected to result in a negligible dose and consequent cancer risk to workers and the public.

Uncontaminated construction debris would total approximately 29.06 m<sup>3</sup> (38 yd<sup>3</sup>) and would be disposed of at the Los Alamos County Landfill. Asbestos and PCB contaminated wastes would total about 10.14 m<sup>3</sup> (13.2 yd<sup>3</sup>) and would be disposed of at permitted offsite facilities. Excess equipment and scrap steel would be checked for potential contamination and, if clean, would be sold for salvage. About 1.53 m<sup>3</sup>/yr (2 yd<sup>3</sup>/yr) of solid low-level waste are estimated to be produced from routine operations. It would be disposed of at the low-level radioactive solid waste disposal area at TA-54. Approximately 10,000 L/yr (2,642 gal/yr) of liquid low-level waste are expected to be produced from NTTL operations. Low-level liquid waste would be taken by tanker truck to the TA-50 radioactive liquid waste treatment facility. No mixed wastes would be generated from the proposed action. Transportation of tritium between TA-16 and TA-21 would be reduced as a result of consolidating NTTL operations at TA-16.

Potential environmental effects under the no-action alternative would include a smaller amount of non-radioactive air emissions as a result of less construction related activities. However, there would be a greater amount of radioactive air emissions based on historical emission rates for Building 209 in TA-21. Human health risks would be slightly higher because TA-21 is physically closer to affected populations and because tritium emissions are expected to be greater than those for TA-16. No PCB wastes would be generated. The amounts of low-level solid and liquid wastes generated from routine operations would be the same as the amounts projected under the proposed action. Transportation of tritium between TA-16 and TA-21 would not be reduced.

An earthquake could pose a credible accident scenario to NTTL operations. Under this scenario, the amount of tritium assumed to be released to the atmosphere would result in a potential dose of  $3.3 \times 10^{-7}$  rem to site workers. This potential dose is not expected to pose an increased health risk to exposed individuals.

No new environmental permits would be required to relocate NTTL operations from TA-21 to TA-16. On December 5, 1995, the U.S. Fish and Wildlife Service concurred with the DOE LAAO finding that the proposed action would not affect any threatened or endangered species or their critical habitats. On November 17, 1995, the State Historic Preservation Officer concurred with the LAAO recommendation that the proposed action would have no effect on cultural resources at LANL.

On November 13, 1995, DOE invited review and comment on the preapproval EA from the State of New Mexico and four American Indian Pueblos: Cochiti, Jemez, Santa Clara and San Ildefonso. In addition, DOE made the pre-decisional draft EA available to Los Alamos County and the general public at the same time it was provided to the state and pueblos by placing it in the Los Alamos National Laboratory Community Reading Room and the DOE Public Reading Room in Albuquerque. Also, local stakeholder groups were notified of the availability of the pre-decisional draft EA on November 13, 1995. Only one set of comments was received on the pre-decisional draft EA and it came from a member of the public. This set of comments was addressed, as appropriate, in the Final EA and an individual response to the letter was prepared by LAAO.

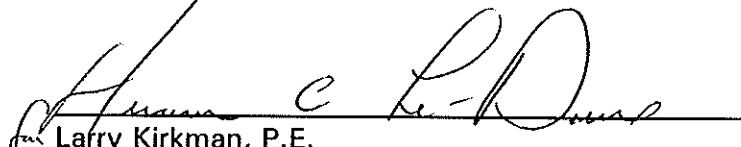
**FOR FURTHER INFORMATION CONTACT:** For further information on this proposal, this Finding Of No Significant Impact (FONSI), or the DOE's National Environmental Policy Act (NEPA) review program concerning proposals at LANL, please contact:

Elizabeth Withers, NEPA Compliance Officer  
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Copies of the environmental assessment and this FONSI will be made available for public review at the Los Alamos National Laboratory Community Reading Room, 1450 Central Ave., Suite 101, Los Alamos, New Mexico, 87544 at (505) 665-2127 or (800) 543-2342. Copies will also be made available in the DOE Public Reading Room, located in the Atomic Museum, 20358, Wyoming Boulevard, Albuquerque, New Mexico, 87185 at (505) 845-6670.

**FINDING:** The United States Department of Energy finds that there would be no significant impact from proceeding with its proposal to relocate NTTL operations from TA-21 to TA-16 at the Los Alamos National Laboratory, Los Alamos, New Mexico. DOE makes this Finding of No Significant Impact pursuant to the National Environmental Policy Act of 1969 [42 U.S.C. 4321 et seq.], the Council on Environmental Quality (CEQ.) regulations [40 CFR 1500] and the DOE NEPA regulations [10 CFR 1021]. Based on the environmental assessment that analyses the relocation of operations, the proposed action does not constitute a major federal action which would significantly affect the human environment within the meaning of NEPA. Therefore, no environmental impact statement is required for this proposal.

Signed in Los Alamos, New Mexico this 11 day of December, 1995.

  
Larry Kirkman, P.E.  
Acting Area Manager  
Los Alamos Area Office