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Field Office, Albuquerque
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NEW MEXICO
ENVIRONMENTAL DEPARTMENT
1994 AUG 22 AM 10:54
OFFICE OF THE SECRETARY

Judith M. Espinosa, Secretary
New Mexico Environment Department
1190 St. Francis Drive
P. O. Box 26110
Santa Fe, NM 87502

I

Dear Secretary Espinosa:

On May 9, 1994, the Department of Energy (DOE) Assistant Secretary for Defense Programs invited your office to review the Environmental Assessment (EA) for a low-level waste drum staging building proposed at the Los Alamos National Laboratory (LANL). Your preapproval review was requested to assist us with the decision whether or not to approve this National Environmental Policy Act (NEPA) review. Your office commented that the proposal would be environmentally benign. I would like to advise you that the NEPA review for this project has been completed. On July 29, 1994, the Assistant Secretary for Environment, Safety and Health signed a Finding of No Significant Impact (FONSI) based on the final EA; a copy of the final EA and the FONSI are enclosed.

Our office recognizes the value of stakeholder involvement in the decision-making process. Accordingly, on August 3, 1994, we issued a new policy regarding enhanced opportunities for stakeholder involvement in the NEPA review process. A copy is enclosed.

We welcome your continued involvement in our NEPA review process for our proposed projects at LANL. If you have any comments or suggestions on how we can better conduct the NEPA review process, please contact Diana Webb. She may be reached on (505) 665-6353.

Sincerely,

Earl W. Bean
Acting Area Manager

LAAMEP:9DW-102

Enclosures

CC:
See page 2



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Judith M. Espinosa

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DOE/EA-0874

ENVIRONMENTAL ASSESSMENT

LOW-LEVEL WASTE DRUM STAGING BUILDING

AT WEAPONS ENGINEERING TRITIUM FACILITY, TA-16

LOS ALAMOS NATIONAL LABORATORY

LOS ALAMOS, NEW MEXICO

Date: August 1994

Prepared by : Defense Programs Office
U. S. Department of Energy

With the technical assistance of:
Environmental Protection Group (ESH-8)
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EXECUTIVE SUMMARY

The proposed action is to place a 3 meter (m) by 4.5 m (10 ft x 15 ft) prefabricated storage building (transportainer) adjacent to the existing Weapons Engineering Tritium Facility (WETF) at Technical Area (TA-) 16, Los Alamos National Laboratory (LANL), and to use the building as a staging site for sealed 55-gallon drums of noncompactible waste contaminated with low levels of tritium (LLW). Up to eight drums of waste would be accumulated before the waste is moved by LANL Waste Management personnel to the existing on-site LLW disposal area at TA-54. The drum staging building would be placed on a bermed asphalt pad, near other existing accumulation structures for office trash and compactible LLW.

The no-action alternative is to continue storing drums of LLW in the WETF laboratories where they occupy valuable work space, hamper movement of personnel and equipment, and require waste management personnel to enter those laboratories in order to remove filled drums.

No new waste would be generated by implementing the proposed action; no changes or increases in WETF operations or waste production rate are anticipated as a result of staging drums of LLW outside the main laboratory building. The site for the LLW drum staging building would not impact any sensitive areas. Tritium emissions from the drums of LLW were included within the source term for normal operations at the WETF; the cumulative impacts would not be increased.

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ENVIRONMENTAL ASSESSMENT

LOW-LEVEL WASTE DRUM STAGING BUILDING at Weapons Engineering Tritium Facility, TA-16 Los Alamos National Laboratory Los Alamos, New Mexico

1.0 BACKGROUND

Los Alamos National Laboratory (LANL) will generate about 10 drums per year of solid, noncompactible low-level radioactive wastes (LLW). LANL has long-term management and disposal capability for such wastes, but an interim collection or staging location for the drums outside the WETF is needed. Based on process knowledge, none of this waste is regulated as hazardous or mixed waste. Operations of the WETF, including LLW management, were described in the WETF EA (DOE 1991). The WETF is expected to reach full operational status in 1994. It is operated by the LANL Weapons Subsystems Group, WX-5.

This Environmental Assessment (EA) has been prepared in compliance with the National Environmental Policy Act (NEPA) to evaluate a proposed LLW drum staging building and to compare the potential impacts of the proposed action with those of a reasonable alternative. The purpose of the EA is to provide the U. S. Department of Energy (DOE) with sufficient information to determine whether a Finding of No Significant Impact (FONSI) is warranted for the proposed action or whether an Environmental Impact Statement (EIS) must be prepared. The assessment of impacts presented herein is based on conservative assumptions that maximize estimates of chemical releases and human exposures. The environmental consequences of operating the proposed staging building are expected to be less than the potential consequences presented here.

The proposed project is identified in the DOE tracking system as AL-LAN-92-038.

1.1 Need and Purpose

The mission of the WETF, as described in the EA for the facility, is to repackage small quantities of tritium to meet precise requirements of experiments (DOE 1991). In the course of this work, noncompactible waste such as used and broken valves, plumbing parts, vacuum pumps, molecular sieves, and vacuum pump oil will be generated. Wastes generated in the WETF laboratories where tritium is used are assumed to be contaminated with tritium, making it LLW. The LLW is accumulated in 30 gallon drums overpacked with 55-gallon drums (81 centimeters [23 inches] diameter and 92 centimeters [36 inches] high). At present, drums must be kept in tritium-handling areas (laboratories) of the WETF until they are taken out by WETF personnel and transferred by the LANL Waste Management Group personnel to the existing LANL LLW management area at Technical Area 54 (TA-54), Area G for disposal. Since all WETF laboratory spaces have been allocated on a priority basis either for permanently installed equipment, or reserved for incoming tritium shipments, no more than one noncompactible waste drum can be stored inside the WETF building.

In addition to the lack of short term storage space inside the WETF for waste drums, the presence of such drums reduces scarce useable work space, hampers the movement of WETF personnel, and exposes WETF personnel to releases of tritium when drums are unsealed to receive more waste. Although personnel doses are within regulatory limits, less than 5 rem per year, the DOE's goal is to reduce doses to personnel to *as low as reasonably achievable* (ALARA).

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 Relationship of Proposed Action to Other NEPA Documents and DOE Decisions

The proposed action has no relationship to other NEPA documents or other DOE decisions, except for those related to the WETF, as discussed above. Any other facility considered for construction at TA-16 would be addressed through NEPA as part of the decision-making process. The proposed action is not within the scope of the DOE Programmatic EIS on reconfiguring the weapons complex as described in the Revised Notice of Intent to prepare that document (DOE 1993).

2.2 Background: Waste Description and General Practices

The WETF was built at TA-16 in 1982-84, as a replacement for the High Pressure Tritium Laboratory, Building 86 at TA-33, a facility for tritium repackaging. An EA was prepared on the operation of the WETF (DOE/EA-0504, DOE 1991) and a Finding of No Significant Impact (FONSI) was signed on March 22, 1991. The identity, volume, transportation, and disposal of waste from the WETF were discussed in the EA (DOE 1991); no changes or increases in WETF operations or in waste production rate are projected as a result of implementing the proposed action. Tritium emissions from this waste were included as part of the emissions expected during normal operations at the WETF, which were found to pose no significant impact to on-site personnel or to members of the public.

During routine operations in the WETF, solid noncompactible wastes are generated in the tritium handling laboratories. These consist of:

- stainless steel, brass, and copper fittings, equipment, and tubing;
- dismantled vacuum pumps;
- used molecular sieve canisters from vacuum pumps; and
- used vacuum pump oil.

The waste minimization program is not expected to reduce or eliminate the volume of noncompactable LLW because this material consists of used, worn out, and broken pieces of equipment. Generating this waste cannot be avoided. Continuing to use such equipment would not be a safe practice. Waste from the areas where tritium is used is assumed to be contaminated with tritium, and thus to be LLW. Because of its small molecular size, tritium can diffuse into (and through) solids. Tritium can substitute chemically for hydrogen in organic compounds such as oils and solvents.

Mixed waste contains radioactive components plus material regulated as hazardous waste under the Resource Conservation and Recovery Act (RCRA). Vacuum pump oil is not regulated as a hazardous waste. Thus, tritium-contaminated pump oil is a LLW rather than mixed waste. No mixed waste would be placed in the drum staging facility.

Two types of waste molecular sieves will result from operations at the WETF. The type addressed in this EA are small molecular sieve canisters (0.5 liter or 1 pint volume) that are routinely attached between tritium apparatus and vacuum pumps. These small molecular sieves are discarded as LLW after use. Management of large molecular sieves, which are a part of the WETF subsystems to contain and capture leaked tritium in the air exhaust system, is addressed in the WETF EA (DOE 1991). The large molecular sieves would not be processed through this drum staging building.

The long-standing practice at LANL tritium facilities is that noncompactible LLW is collected in labeled 30-gallon drums overpacked with 55-gallon drums, with tritium absorbing material such as asphalt between the drum walls. Dry ground-up corn cobs, called *corn cob fraction*, or vermiculite is used as packing around the metal pieces. This dry material sorbs any tritiated water vapor, oil residues, and solvents from the metal parts. Used vacuum pump oil is poured into a drum filled with corn cob fraction which acts as an oil sorbant. The lids of both drums are sealed except when waste is being added. When a drum is filled to capacity, the top of the inner drum is sealed in place, asphalt is poured on top, and the

55-gallon drum top is sealed in place. The drum is labeled and manifested before LANL waste management personnel accept it for disposal. Disposal of noncompactible tritiated waste of weight greater than 35 pounds in such a manner explicitly complies with LANL Administrative Requirement 10-2 (LANL 1991).

Noncompactible LLW management at WETF consists of LANL waste management personnel moving the drums containing waste from the WETF loading dock to TA-54, Area G where it will be disposed of as discussed in the WETF EA (DOE 1991). The drums of waste will be buried at the existing LLW disposal area, TA-54 Area G. Tritiated wastes have long been disposed at Area G. The contribution from the WETF to the LLW disposed at Area G will be extremely small, about 1.5 millicurie (mCi) per drum or 15 mCi per year, assuming that 10 drums of waste are generated per year.

2.3 Proposed Action: Erect and Operate a LLW Drum Staging Building

The proposed action is to erect and operate a satellite waste staging building immediately adjacent to the WETF for drums of LLW, in an area where compactible LLW and sanitary waste are already staged. A prefabricated building 3 meters (m) by 4.5 m (10 ft by 15 ft) (transportainer) would be placed on a bermed asphalt pad and would contain the drums until LANL waste management personnel transfer them to the waste management and disposal area at TA-54. The transportainer type of building has passive ventilation. The LLW drum staging building would not be equipped with a fire suppression system, a tritium removal system, or an atmospheric monitor. No regulations or LANL procedures would require or justify their use, based on risk and expected emissions of the building. There would be no flammable materials outside the sealed drums to support a fire and no ignition sources would be present. As a result, there is virtually no chance of a fire. The building would not require the installation of a tritium removal system since the quantity of tritium which might escape from the drums would be extremely small, not in excess of 7.5 mCi/year. The worker who would be adding waste to a drum would always be accompanied by a Radiation Control Technician equipped with a portable tritium monitor. When the waste drum is unsealed, the Radiation Control Technician would insert the probe of the monitor into the air space within the drum (head space) to measure the tritium concentration. Should the level exceed safe level, the drum would be resealed and other measures, such as equipping the workers with supplied breathing air, would be implemented to prevent the worker inhaling excessive tritium. The drum could also be permanently sealed and sent for disposal.

The drum staging building would hold a maximum of 8 drums, some of which may be empty. Based upon the history of TA-33 (the facility WETF replaces), eight drums constitutes a very adequate storage capacity. The 10 drums/year is a very conservative estimate for noncompactible waste generation at WETF.

Drums containing waste would be immediately moved from the WETF into the staging building by WETF personnel. The distance between the WETF and the drum staging building would be about 30 m (100 feet). Future waste designated for the drums would be placed inside double plastic bags, sealed, and hand carried across the asphalt drive to the drum staging building. When a heavy object such as a pump is to be moved, a dolly or cart would be used. The individual moving the waste and the Radiation Control Technician would wear anti contamination clothing and rubber gloves as specified in DOE Order 5480.11. No extra change of clothing would be required as they would be working in the WETF Controlled Area. The waste items, in most cases, would be contained at the job site in plastic bags while their disposition (repair or waste) was determined. Thus, very few additional plastic bags would be disposed of as waste. If an operation is planned which would generate a large volume of noncompactible waste, the drum(s) could be brought inside the WETF for that operation. In most cases, future waste would be placed in the drums inside the staging building as it is generated. A maximum of 8 drums would be filled before LANL waste management personnel move the waste from the drum staging building to TA-54 for disposal.

Access to the WETF area is controlled and is normally limited to individuals having access to National Security information. In addition, the LLW drum staging building would be locked to prevent unauthorized access. The building would be entered only under guidance provided by a WETF Radiation

Protection Technician. Because a maximum of 7.5 mCi of tritium could escape from the drums into the drum staging building annually, a radiation monitoring device would not be needed.

2.4 Alternatives Considered but Dismissed as Unreasonable

2.4.1 Utilize a LLW Drum Staging Building at Another Facility

Moving the WETF LLW drums to another LLW drum staging area at TA-16 would present identical environmental impacts with those of the proposed action, but a more remote building would be less convenient to use because the waste would have to be transported farther. Each individual package of waste would have to be manifested and packaged for transportation.

2.5 No-Action Alternative: Stage LLW Drums in the WETF

The no-action alternative is for each drum of LLW to be filled to capacity in the tritium-handling laboratories within the WETF building. Since there is physically not enough space in the WETF building to store filled drums, the LANL waste management personnel would then be called to pick up each filled drum to be transported to TA-54. WETF personnel would then move the filled and sealed drum from the WETF lab to the loading dock. Waste management personnel would be allowed to gain access to the TA-16 controlled area to pick up and remove the waste only after receiving proper site-specific training. Site-specific training includes training current waste management personnel and their alternates as well as maintenance of a training database for these personnel. Eight times as many round trips would be needed to transport the waste - one trip for each drum compared with one trip for eight drums in the proposed action.

3.0 AFFECTED ENVIRONMENT

3.1 General Description

Detailed descriptions of LANL environs, its geology, climatology, meteorology, hydrology, population distribution, and environmental monitoring program are presented in the annual Environmental Surveillance Reports (see LANL 1993).

Los Alamos National Laboratory is a DOE facility, located on 111 km² (43 mi²) of land in Los Alamos County in north-central New Mexico, approximately 100 km (60 mi) north-northeast of Albuquerque and 50 km (30 mi) west of Santa Fe. LANL is on the Pajarito Plateau, a series of mesas and canyons, at an elevation of about 2,200 m (7,200 ft) above sea level. Los Alamos has a semiarid, temperate mountain climate with about 45 cm (18 in.) annual precipitation. The location is shown in Figure 1.

3.2 Specific Area Affected

The site for the proposed action and the no-action alternative is described in the WETF EA (DOE 1991) and is shown in relation to LANL and Los Alamos County in Figure 2. The LLW drum staging building would be located in a developed area, about 45 m (150 ft) east of the WETF, behind the facility security fence, on an asphalt pad next to dumpsters for sanitary trash and compactible LLW, as shown in Figure 3.

The area is a level, partially wooded mesa top that contains no permanent streams, floodplains or wetlands. The surrounding vegetation is ponderosa pine with an understory of mixed grasses, forbs, and shrubs. Soils in the area are Tocal and Frijoles fine sandy loams (Nyhan 1978).

3.3 Affected Population

Los Alamos County has a population of 18,115, based on the 1990 U. S population census. The county contains two residential and commercial areas, the Los Alamos townsite with a population of 10,870 and White Rock with a population of 7,246. The site for both proposed action and the no-action alternative is 1,400 feet (a quarter mile) from LANL boundary on West Jemez Road which is the nearest point of public access, 0.8 kilometers (km) (2,500 ft, 0.5 mi) from the nearest campgrounds of Bandelier National Monument which is the nearest point inhabited throughout the year, and 6 km (18,000 ft, 3.5 mi) from Los Alamos townsite which is the nearest population area.

3.4 Air Emissions from the Project Area

The doses to nearby individuals and populations are included in those calculated for the WETF and are presented in Table 1 below. Doses due to managing the LLW in drums are shown in Table 2. These doses will not be affected by the location of the waste drums.

The airborne emissions from the drums are assumed to be 7.5 mCi/year, 0.75 mCi from each of the 10 drums that might be filled within a year. For the no-action alternative, this would be dispersed within the WETF, which has a volume of 7,400 cubic ft. The complete change in the volume of air in the building, the air change rate, is assumed to be one change per hour.

The doses to personnel in an adjacent facility and to members of the public are included in analyses presented in the WETF EA (DOE 1991) where annual emissions of 400 Ci are assumed. Actual emissions from the WETF are expected to be about 25 Ci per year. Estimates are based on project staff members' experience with other LANL tritium facility operations. The 400 Ci/year emissions estimate is considered to be very conservative.

3.4.1 Doses from Ongoing Operations

LANL supports an ongoing environmental surveillance program, as required by DOE orders (DOE 1981, 1988a). This program includes routine monitoring programs for radiation, radioactive emissions and effluents, and hazardous materials management at LANL. The committed effective dose equivalents (CEDE), referred to for brevity as doses, to individuals are calculated for routine Laboratory operations. Information developed under the monitoring program is presented in detail in the annual Environmental Surveillance Reports (for example, LANL 1993).

The background radiation dose to an average individual living in Los Alamos was 337 mrem in 1990; the additional dose attributable to all Laboratory operations was 0.15 mrem (LANL 1992). For comparison, the EPA limits dose via the air pathway from any DOE facility to a member of the public to 10 mrem/year above background (40 CFR 61, Subparts A and H, EPA 1991). The DOE Radiation Protection Standard for exposure to members of the public from all pathways is 100 mrem per year above background (DOE 1990).

As the WETF is not yet fully operational, exposures to members of the public are not known. Based on assumed emissions of 400 Ci/yr, the doses and risks of nearby individuals and populations developing excess fatal cancers from overall WETF operations are shown in Table 1. The assumed emission is conservative and based on experience at LANL with other tritium facilities, as discussed above. These dose estimates would be independent of whether the waste drums are staged in a support building (proposed action) or in the WETF (no-action alternative). The dose to the WETF workers from normal operations is estimated to be 5 to 200 mrem/yr, as reported in the WETF EA (DOE 1991). The dose to the individual who adds waste to the drum could be as much as 0.34 mrem/year in addition to the dose associated with other WETF operations. This dose would be the same whether the drum is in a staging building or in the WETF. These doses are well within the EPA and DOE standards.

Table 1: Annual Doses and Risks of Excess Fatal Cancers to Nearby Individuals from LANL and WETF Operations

Exposure Source	Background ^a	Dose Increase due to LANL Operations ^a	Dose Increase due to all WETF Operations ^b	Risk of Excess Fatal Cancers due to WETF Operations
Individual (mrem)				
Bandelier	3.4×10^2	not available ^c	8.0×10^{-5}	3.5×10^{-11}
Campground				
Los Alamos	3.4×10^2	1.5×10^{-1}	1.5×10^{-4}	6.6×10^{-11}
White Rock	3.4×10^2	1.5×10^{-1}	5.3×10^{-5}	2.3×10^{-11}
Population^d (person-rem)				
Los Alamos	3.0×10^3	1.3×10^0	1.5×10^{-3}	6.6×10^{-7}
White Rock	2.4×10^3	8.8×10^{-1}	4.9×10^{-4}	2.2×10^{-7}
Area within 80 km (50mi) radius of the Laboratory	7.0×10^4	3.1×10^0	3.7×10^{-3}	1.6×10^{-6}

a. Annual Surveillance Report (LANL 1992)

b. WETF EA (DOE 1991)

c. Not calculated separately for this location

d. Population of Los Alamos assumed to be 10,870; White Rock 7,246; and the area within a 80 km (50 mi) radius of LANL, 203,000.

4.0 ENVIRONMENTAL IMPACTS/CONSEQUENCES

4.1 Methodology

The tritium contamination level of solid LLW from WETF operations is estimated from that of similar waste generated at Building 86, TA-33, where tritium repackaging operations were performed until October 1990. The tritium content of LLW sent from Building 86 to TA-54 from 1988 through 1991 was about 13 mCi/cubic m. or about 1.5 mCi/drum, assuming that the entire volume (0.1139 cubic m) of the 30-gallon drum could be occupied by waste. In reality, because the waste is noncompactible and cannot occupy the entire volume of the drum, waste occupying 50% of the drum volume is a reasonable estimate.

Tritium gas is oxidized slowly to tritiated water; under natural conditions tritium oxidation rate is <1% per hour in soil and slower in air (Brown 1990). The rate of oxidation on metal surfaces is not well known and neither are the kinetics of desorption of tritium or tritiated water vapor from surfaces. However, because the measure of potential biological damage (the dose conversion factor) of tritiated water is 25,000 times as great as that for tritium gas (EPA 1988), the tritium in the LLW is assumed to be 100% tritiated water.

Each drum is assumed to contain 1.5 mCi tritium, entirely in the form of tritiated water. Half of the tritium in the waste is assumed to be released into the air when the drums are opened to add waste. The tritium released from each drum is assumed to be 0.75 mCi; ten drums are assumed to be filled per year. The annual release from 10 drums is assumed to be 7.5 mCi.

The committed effective dose equivalents (CEDE) to potentially exposed individuals and populations were calculated for releases due to normal operations using the AIRDOS EPA computer code with a release rate of 7.5 mCi/yr of tritiated water (Moore 1979). Doses from normal operations are estimated for a laboratory worker who is involved with this project (DOE 1988b), as well as for nearby individuals and populations.

Exposure to radiation increases an individual's chance of developing cancer. Consequences of the doses may be expressed as risk of excess fatal cancer cases. For tritium decay, a low linear energy transfer radiation, the BEIR V Report risk conversion factor is 440 cancer fatalities per 10^9 person-mrem. The derivation of this risk factor is based on the methodology discussed in Chapter I and IV of the BEIR V Report (NAS/NRC 1990, LANL 1992, Jacobson 1992). This agrees generally with another assumed risk of 400 cancer fatalities per 10^9 person-mrem for workers and 500 per 10^9 person-rem for the general population (NRC 1991).

4.2 Impacts of the Proposed Action: Erect and Operate a LLW Waste Drum Staging Building

4.2.1 Airborne Emissions

Because of the remote mesa-top location and the small scope and nature of the project, the environmental impacts of the proposed action and the no-action alternative differ only by placing a 10 ft x 15 ft building in a disturbed area and by dose and risk of developing fatal cancers to personnel in immediate proximity to the waste drums. The doses to personnel in an adjacent facility and to members of the public would not be different for the alternatives in question and are included in analyses presented in the WETF EA (DOE 1991) where annual emissions of 400 Ci are assumed. As stated above, actual emissions from the WETF are expected to be about 25 Ci per year.

Half the tritium contained in the waste is assumed to diffuse into the drum head space and to be released into the staging building atmosphere as the drum is opened to receive additional waste. Assuming that each drum releases 0.75 mCi into the building which has a volume of 34 cubic meters, the tritiated water concentration would be 0.02 mCi per cubic meter at the time waste is added. The tritium is assumed to diffuse completely from the building before the next waste addition.

The doses and risks of developing fatal cancers to nearby individuals and populations are included in those calculated for WETF operations and shown in Table 1 above in Section 3.4.1. As the WETF cannot operate without generating this LLW stream, the dose due to managing this waste was included in the dose due to the overall operation (also shown in Table 1). The doses and risk of developing fatal cancer due only to managing this LLW in drums are shown in Table 2.

Table 2: Annual Doses and Risks of Excess Fatal Cancers for Normal Operations, Drum Staging Building

Location	CEDE / year	Risk of Excess Fatal Cancers
Maximum at Site Boundary (West Jemez Road, 1391 ft)	9.5×10^{-6} mrem	4.2×10^{-12}
Maximum Individual (Bandelier Campground, 2500 ft)	6.1×10^{-6} mrem	2.7×10^{-12}
Collective Population (Los Alamos townsite, 3.4 mi)	3.6×10^{-3} person-mrem	1.6×10^{-9}

4.2.2 Worker Impacts

The dose range estimated for WETF personnel is 5 to 200 mrem per year (DOE 1991). This dose is for all normal operational activities, including waste management. If drums are staged outside the WETF, the dose to individuals inside the WETF would be decreased slightly, but would still be within the 5 to 200 mrem/yr range. If the same individual (the involved worker) breathes the air in the drum staging building while adding waste, 15 minutes per week for 50 weeks per year, the individuals' dose would be 0.34 mrem. This exposure and dose would be reduced if the exposure time were less. Risk of excess fatal cancer for that worker is calculated to be 1.4×10^{-7} . The DOE Annual Protection Standard for on-site

personnel is 5 rem (DOE 1992); LANL *as low as reasonably achievable* (ALARA) policy is 1 rem (1,000 mrem) per year.

No other WETF personnel would be affected as the tritium would disperse in air before being taken into the WETF ventilation system. The LANL Waste Management personnel who remove the drums would not breath any tritium as they would not open drums and would not enter the WETF laboratories.

4.2.3 Land Use

The location identified for the LLW drum staging building is disturbed and developed as a waste accumulation area; a small area will be paved with asphalt. A security fence is located 9 m (30 ft) southwest of the waste accumulation area. Impact on land use is negligible because the area for the proposed action is only 14 square m (150 square ft) in a site already removed from public use. The location is not a solid waste management unit (SWMU) or an environmental restoration (ER) site (LANL 1992). After use, the building could be moved and used elsewhere at LANL, the asphalt pad could be removed, and the area could be revegetated in accordance with LANL decontamination and decommissioning (D&D) program. No residual contamination is anticipated.

4.2.4 Sensitive Areas

Surveys of the area conducted before construction and operation of the WETF have determined that no sensitive areas would be affected by development on that site. Sensitive areas include floodplains, wetlands, State or Federally listed threatened or endangered species or Federally listed proposed or candidate species or their critical habitat, sole-source aquifers, and cultural resources (DOE 1991).

A survey of TA-16 for cultural resources was recently completed. No cultural resources were found in the vicinity of the WETF. A report was submitted to the New Mexico State Historic Preservation Society (SHPO) documenting that no effect on cultural resources is anticipated (Manz 1992); concurrence has been received (Vozella 1992).

LANL staff biologists have generated a data base of information on threatened and endangered species that might occur in Los Alamos County, along with their expected habitats. This information was used together with field surveys was used by the LANL staff biologists to evaluate any potential impact to threatened or endangered species that could result from constructing and operating the LLW Drum Staging Building. The LANL staff biologists concluded that there would be no potential for adverse impact within the proposed project area.

4.3 No Action Alternative Impacts: Stage LLW Drums in the WETF

4.3.1 Airborne Emissions

The airborne emissions from the drums are assumed to be the same as the proposed action: 7.5 mCi annually (0.75 mCi from each of the 10 drums) dispersed within the WETF, which has a volume of 7,400 cubic feet. The complete change in the volume of air in the building, the air change rate, is assumed to be one change per hour.

As stated in Section 4.2.1, the doses and risks of excess cancer fatalities to nearby individuals and populations are included in those calculated for the WETF and are presented in Table 1. Doses and risk of cancer fatality due to managing the LLW in drums are shown in Table 2. These doses and risk of cancer fatality would not be affected by the location of the waste drums.

4.3.2 Worker Impacts

The dose to the involved worker who adds waste to the drum inside the WETF building would be the same as the dose to the involved worker adding waste to the drum in the drum staging building, as

presented in Section 4.2.2. Assuming that others of the WETF staff are in the facility 2,000 hours per year (50 weeks at 40 hrs/wk), the individual dose due to opening the drums would be 2×10^{-5} mrem per person per year. This is included within the dose estimate of 5 to 200 mrem/year for WETF personnel (DOE 1991). The WETF staff is assumed to be 10 individuals or less. The total dose would be 2×10^{-4} person-mrem/year. Using the cancer conversion rate noted above the risk of excess fatal cancers among the WETF staff would be 8×10^{-11} for a year's exposure.

4.3.3 Land and Space Use

No additional land outside the WETF would be used. The LLW drums would continue to be staged in the WETF laboratories where tritium is handled, with one drum being staged at a time. The drums would restrict use of laboratory space and would hamper movement of personnel. As each drum is filled, LANL waste management personnel would be called to remove it from the WETF loading dock to TA-54, Area G.

4.3.4 Sensitive Areas

No additional structure would be erected; there would be no chance of impact to sensitive areas.

4.4 Cumulative Impacts

The cumulative effects of the proposed action would consist of a prefabricated, portable building occupying 150 square feet of space adjacent to and outside the WETF. The building could be moved to another area without difficulty, and the site could then be reclaimed. There should be no residual soil contamination as the building would rest on an asphalt pad. The no-action alternative requires no new building.

The cumulative effect of tritium released from the waste drums at the WETF is included in the EA for that facility, where all operations were incorporated within a generous source term. The annual tritium emission assessed was 400 Ci whereas the realistic annual emission estimate is 25 Ci. Because the laboratory air does not flow through a tritium capture system unless air concentration reaches 0.5 mCi/m^3 , the small leakage from the waste drums would be released to the environment whether the drums are located within the WETF or in the proposed staging building.

No additional solid waste would be generated with either alternative. There would be no effluents from either the proposed action or the no-action alternative.

4.5 Future Foreseeable Actions

Future foreseeable actions would include only routine maintenance of the building.

5.0 PROBABILITIES AND CONSEQUENCES OF ACCIDENTS

Abnormal events that could cause the release of tritium into the work area and environment have been selected as a means of comparing the risks of excess fatal cancers from the proposed action and the no-action alternative. The scenarios have been selected to bound situations that could occur during the lifetime of the facility, assuming that all standard operating procedures are followed and suppression and protection systems function as expected. The risks presented are those of additional cancer fatalities, assuming that the release occurred. The probability of the accident itself is not a part of this risk calculation.

For unplanned releases in the two accident scenarios, the doses (CEDE) were calculated. For each accident the material is assumed to be released in a single instantaneous release. The Puff type atmospheric dispersion model was used to calculate the concentrations (Turner 1971). Conservative meteorological conditions were used for each scenario.

Accident-related doses are calculated using the AIRDOS-EPA for the project worker nearest the drums, for the worker in the Building 450 which is an adjacent facility (DOE 1988b), for the maximum individual dose (MID), and for the population living in Los Alamos townsite. For an accident, the MID is defined as a member of the public who happens to be at the nearest site boundary just at the time of the accident rather than the individual who lives nearest to the facility. In this case, the accident-related MID is at the nearest site boundary on West Jemez Road (Figure 2).

5.1 Selection of Events for Analysis

The two abnormal events considered below are the rupture of a single filled drum and a fire involving all eight filled drums. It would be difficult to rupture the double drum and such an incident has not been reported during routine handling. The probability is considered very low. A fire in the WETF is not considered "credible" (LANL 1989, DOE 1991) due to lack of ignition source and low fuel loading. The LLW drum staging building would contain no ignition sources.

5.2 Drum Puncture

A drum is assumed to be punctured by some accident such as a misdirected forklift tine as the filled drum was being moved. The volatile fraction of the tritium, assumed to be 0.75 mCi as tritiated water vapor, is released and disperses into the staging building or WETF laboratory. Loss of material from the inner drum is unlikely because the puncture hole would be about 1.5 in. by 5 in. Any spill would be readily cleaned up.

Proposed Action

The tritium disperses into 10% of the staging building air space (34 cubic m). An individual adjacent to the punctured drum who inhales tritiated water vapor for 15 minutes could receive a dose of 68 mrem. Doses and risk of excess fatal cancers to individuals in the adjacent building, at the nearest site boundary, and at the nearest inhabited public site, as well as the dose and risk of excess fatal cancers for the collective population of Los Alamos are shown in Table 3. Risk of excess fatal cancers, if this accident did occur, would be 1.6×10^{-10} for the individual in the nearest building (the uninvolved worker) and 4.3×10^{-9} for the population of the Los Alamos townsite if the wind were blowing in that direction.

No-Action Alternative

If the drum puncture were to occur in the WETF laboratory, which is a larger space (7,400 cubic feet), the release would be the same: 0.75 mCi. An involved worker immediately adjacent to the drum, inhaling tritiated water vapor for 15 minutes, could receive approximately the same dose, 68 mrem, assuming no diffusion. The expected dose to an individual in the WETF laboratory would be 2.0×10^{-6} mrem. All other doses and risk of excess fatal cancers would be the same as those shown in Table 3 for the proposed action.

Table 3: Radiation Doses and Risks of Excess Fatal Cancers for Accident Scenarios

Drum Puncture^a		
Location	CEDE	Risk of Excess Fatal Cancers
Adjacent Building (100m)	4.1×10^{-4} mrem	1.6×10^{-10}
Site Boundary Maximum	4.8×10^{-5} mrem	21.9×10^{-11}
Maximum Individual ^c	1.9×10^{-5} mrem	9.5×10^{-12}
Collective Population (Los Alamos townsite)	8.6×10^{-3} person-mrem	4.3×10^{-9}

Fire^b		
Location	CEDE	Risk of Excess Fatal Cancers
Adjacent Building (100m)	6.6×10^{-3} mrem	2.6×10^{-9}
Site Boundary Maximum	7.6×10^{-4} mrem	3.8×10^{-10}
Maximum Individual ^c	3.0×10^{-4} mrem	1.5×10^{-10}
Collective Population (Los Alamos townsite)	1.4×10^{-1} person-mrem	7.0×10^{-8}

a. Doses are the same for the proposed action and for the no-action alternative.

b. Doses are for the proposed action only.

c. The maximum individual dose is calculated for the nearest inhabited public site, Bandelier Campground.

5.3 Fire

Due to the lack of ignition source, free combustible material, and closed drums, a fire involving 8 drums is not a reasonably foreseeable event. However, a fire is assumed to involve all drums, releasing all 12 mCi of tritium as tritiated water vapor.

Proposed Action

An individual in the vicinity of the drum staging building is assumed to immediately evacuate into the WETF to call for fire control and thereby escape any dose. Dose and risk of excess fatal cancer calculations are shown above in Table 3. Risk of excess fatal cancers, if this accident did occur, would be 2.6×10^{-9} for the individual in the nearest building (the uninvolved worker) and 7.0×10^{-8} for the population of the Los Alamos townsite if the wind were blowing in that direction.

No-Action Alternative

Smoke would activate a fire alarm and fire suppression system within the WETF. All personnel within the facility would be expected to evacuate. The County Fire Department would respond to the alarm. If such an incident were to occur, the Emergency Tritium Cleanup Subsystem could be activated to remove all tritium from the building air before exhausting it to the environment. In this case, no individuals outside the facility would receive any dose and therefore could not suffer any risk of developing fatal cancer from a drum fire occurring inside the WETF.

5.4 Comparison of Risk from the Proposed Action and the No-Action Alternative

The proposed action is associated with a slightly higher possible dose to the nearest individual and corresponding fatal cancer risks in the case of a drum puncture. In case of a fire, the proposed action is also associated with higher doses and fatal cancer risks to individuals in the adjacent facility and to members of the public. However, the doses are many orders of magnitude below applicable guidelines and standards. No added cases of cancer in either exposed on-site individuals or members of the public are

expected from either accident, regardless of the alternative. The risk of a single additional fatal cancer case, if either accident did occur, could be 2.6×10^{-9} to an exposed individual or 7×10^{-8} to the population of Los Alamos town site.

Normal Operations

The proposed action differs from the no-action alternative only in dose to other individuals working in the WETF, as shown below in Graph 1.

Accidents

The proposed action doses due to drum puncture are the same whether the event occurs in the drum staging building (proposed action) or in the WETF (no-action alternative), as shown below in Graph 2. No doses are expected from a fire with the no-action alternative, however, because of the smoke alarm and fire suppression system within the WETF. (See Graph 2)

6.0 ENVIRONMENTAL CONSULTATION AND REVIEW

6.1 Clean Air Act

The LLW drum staging building has been reviewed to determine whether a permit application to the U. S. Environmental Protection Agency (EPA) is needed. The National Emission Standards for Hazardous Air Pollutants (NESHAPS), 40 CFR 61, Subparts A and H, requires that any new or modified facility that will release radioactive materials to the atmosphere must first obtain approval from the EPA Regional Administrator. The drum staging building would not be a new source of emissions as the emissions would be a relocated activity from the WETF.

No other pollutants will be produced at the LLW drum staging building.

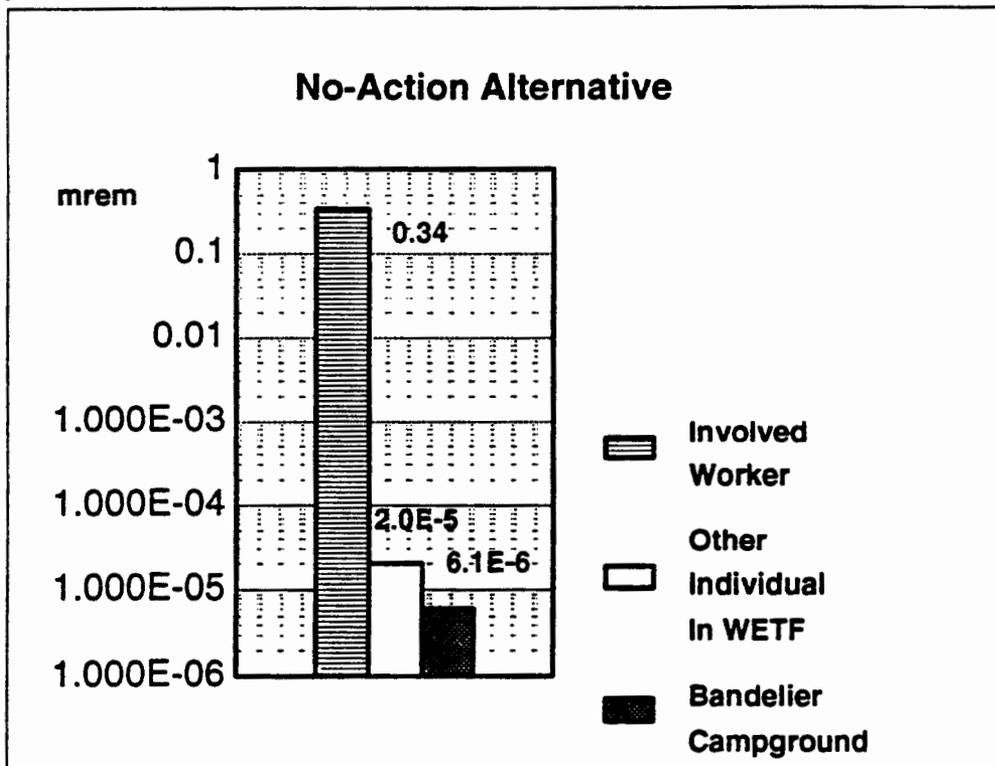
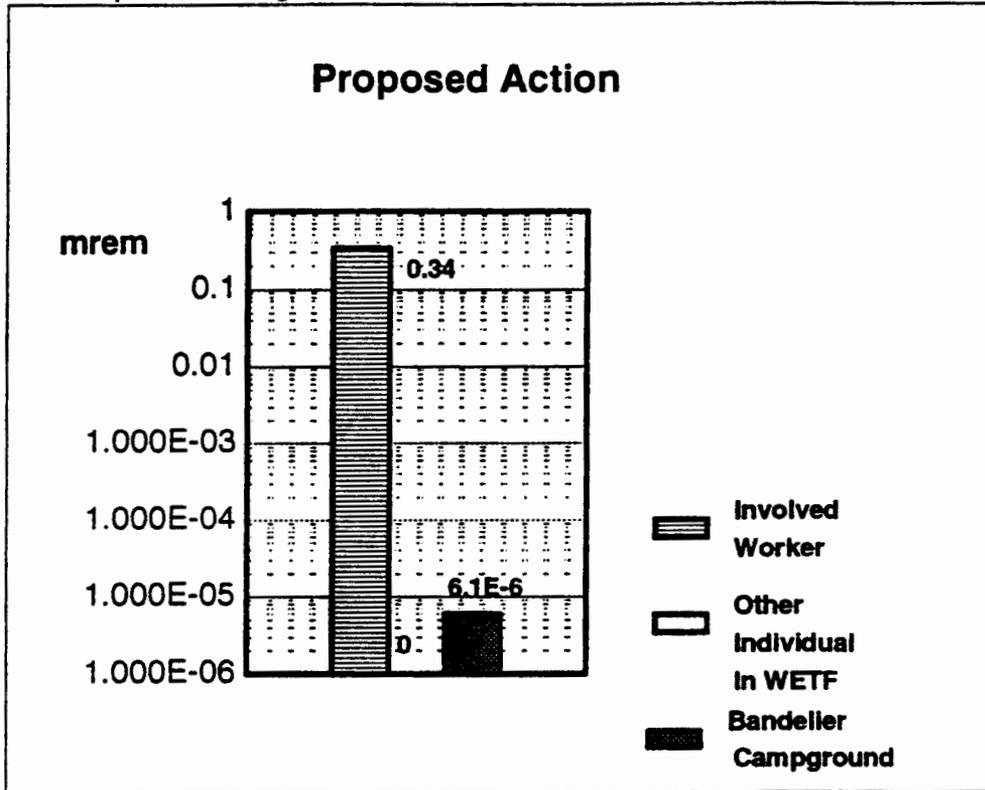
6.2 National Historic Preservation Act

Before the WETF was constructed, the area was surveyed by LANL archaeologist who found no cultural or historic sites (Steen 1981, DOE 1991). There is no record of formal consultation with the State Historic Preservation Office (SHPO) or the Advisory Council on Historic Preservation at that time. During the summer of 1991, the area was resurveyed with the same result; no cultural or historic sites were found. A report was submitted to SHPO for their formal concurrence (Manz 1992). The SHPO has concurred in the determination of no effect to historic properties from this undertaking (notation on letter Vozella 1992). The drum staging building would be located within the surveyed area.

6.3 Endangered Species Act

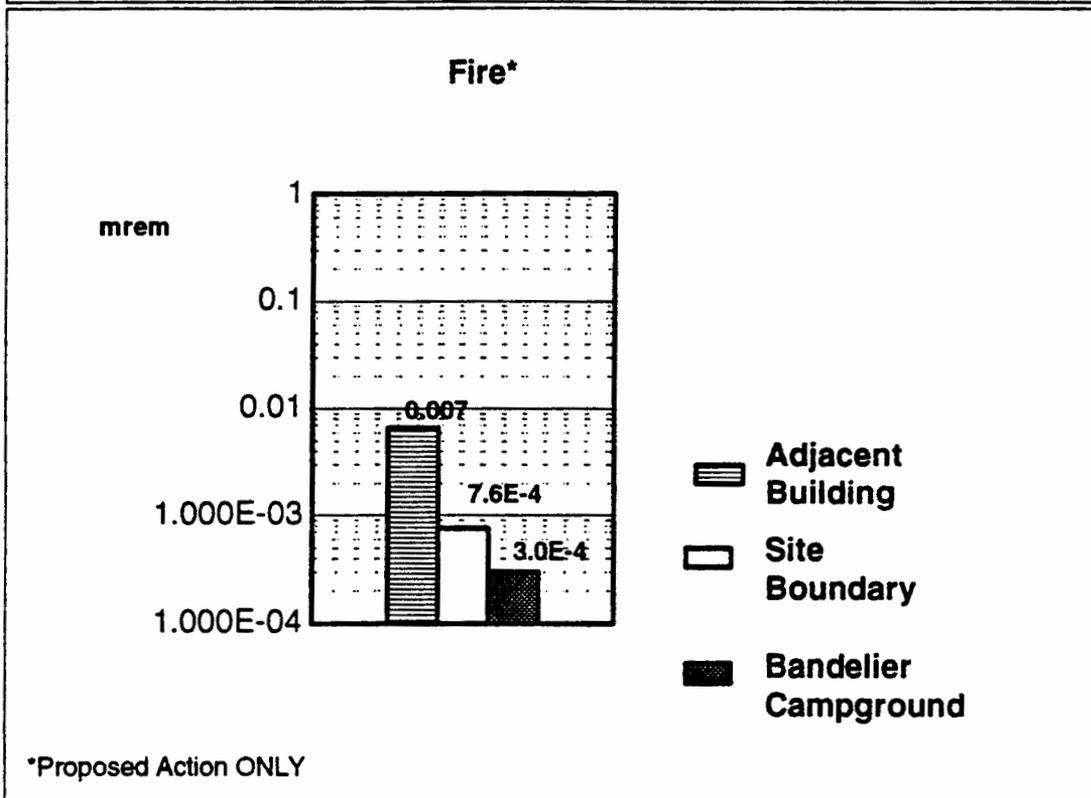
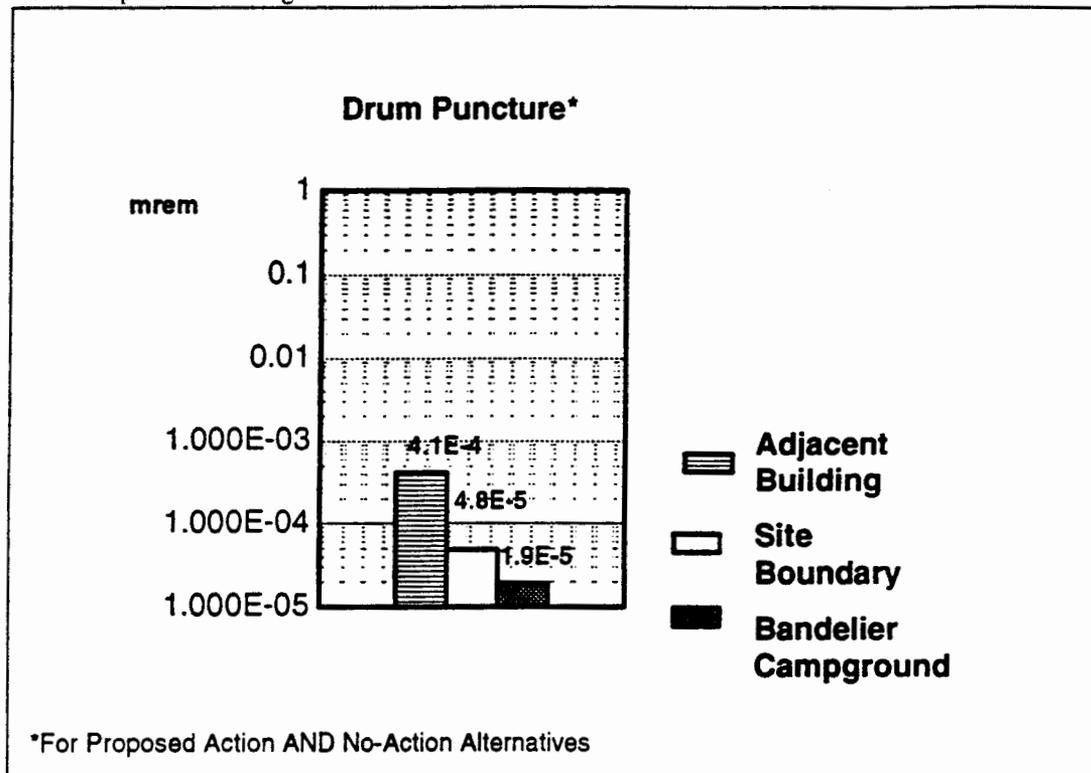
Through semi-annual informal consultation, Laboratory biologists obtain a list of threatened and endangered species from the U. S. Fish and Wildlife, New Mexico Game and Fish, and New Mexico Department of Natural Resources. These species are incorporated into a threatened and endangered database. A survey of the WETF area was conducted by laboratory biologists during the summer of 1990 to determine the presence of any threatened and endangered species utilizing the habitat within the area. None of the possible federal or state threatened or endangered species were found. There has not been any known threatened or endangered species occurrence within this habitat type at LANL. No further consultation was needed.

Graph 1: Annual Individual Doses for Proposed Action and No-Action Alternatives
Note: Graphs are on a logarithmic scale.



Graph 2: Accident-Related Individual Doses

Note: Graphs are on a logarithmic scale.



7.0 RELATIONSHIP OF THE PROPOSED ACTION TO APPLICABLE FEDERAL, STATE, REGIONAL, AND LOCAL LAND USE PLANS

No known conflict exists with any federal, state, regional, or local land use plans. The land now used by LANL was withdrawn by the Federal Government in 1942 for purposes of national defense. The proposed action does not require that any additional land be withdrawn.

8.0 AGENCIES AND PERSONS CONSULTED

This Environmental Assessment was prepared with the help of:

- New Mexico State Historic Preservation Office (SHPO),
- U.S. Fish and Wildlife (USFW),
- New Mexico Fish and Game, and
- New Mexico Department of Natural Resources.

Table 4. Applicability of Environmental Laws and Permitting

ENVIRONMENTAL REQUIREMENTS	APPLICABILITY
National Environmental Policy	See Section 1.1
Threatened and Endangered Species and Critical Habitat	See Section 4.2.3
Fish and Wildlife Conservation	Not applicable - no water; area is already fenced
Historical/ Cultural (Historic Preservation Act, American Indian Religious Freedom Act)	See Section 4.2.3
Land Use Plan Consistency	See Section 7.0
Floodplain Management	Not applicable - no floodplains affected
Wetlands Protection	Not applicable - no wetlands affected
Farmland Protection	Not applicable - withdrawn for national defense in 1942
Recreation Resources	Not applicable - withdrawn for national defense in 1942
Permits for Structures in Navigable Waters (Rivers and Harbors Act)	Not applicable -no navigable waters
Permits for Discharges into Waters of the United States (Clean Water Act - Section 404)	Not applicable - no dredge or fill operations
Permits for Rights-of-Way on Public Lands	Not applicable - only DOE property involved
Clean Air Act	See Section 4.2.1 and 4.3.1
Clean Water Act and Safe Drinking Water Act	Not applicable - no effluents
Resource Conservation and Recovery Act	Not applicable - no hazardous waste
Noise Control Act	Not applicable - no operations
Federal Insecticide, Fungicide, Rodenticide Act	Not applicable - no regulated substances
Toxic Substances Control Act	Not applicable - no PCBs distributed, used, or disposed of
Energy Conservation	Not applicable - no energy used

9.0 REFERENCES

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Turner, D. B., "Workbook of Atmospheric Dispersion Estimates," Rep. Ap-26, Office of Air Programs, U. S. Environmental Protection Agency, Research Triangle Park, N.C. (1971).

Vozella 1992: J. Vozella, letter to Thomas W. Merlan, State Historic Preservation Officer, LESH:1SF-056, and typed notation of concurrence signed by L. Sebastian, Deputy State Historic Preservation Officer, September 24, 1992.

10.0 GLOSSARY AND OF ABBREVIATIONS AND ACRONYMS

ALARA	as low as reasonably achievable; dose guidelines
CEDE	committed effective dose equivalent, a hypothetical whole-body dose that would give the same risk of cancer mortality and/or serious genetic disorder as a given exposure to several target organs; it may be limited to just a few organs
Ci	curie, a unit of radioactivity; the amount of a radionuclide that undergoes exactly 3.7×10^{10} radioactive disintegrations per second
dose	term denoting the quantity of radiation energy absorbed
ER	Environmental Restoration; a program to clean up DOE sites
LANL	Los Alamos National Laboratory
LLW	low-level radioactive waste; solid waste that is not classified as high-level waste, transuranic waste, or spent nuclear fuel as defined in Department of Energy Order 5820.2A, "Radioactive Waste Management."
mCi	millicurie, one-thousandth of a curie
MID	maximum individual dose or maximally exposed individual
mixed waste	waste containing both radioactive and hazardous components as defined by the Atomic Energy Act (AEA) and Resource Conservation and Recovery Act (RCRA)
mrem	millirem, one-thousandth of a rem

NEPA	National Environmental Policy Act
person-rem	unit of dose equivalent for a population, used in the field of radiation dosimetry
RCRA	Resource Conservation and Recovery Act
rem	the amount of ionizing radiation required to produce the same biological effect as one roentgen of high-penetration x-rays; unit of dose equivalent for a single individual; used in the field of radiation dosimetry
SWMU	solid waste management unit; a potentially contaminated area
transuranic waste	TRU waste: solid waste that is contaminated with alpha-emitting radionuclides with half-lives >20 years to levels >100nCi/g of waste with the exception of natural and depleted uranium. See Department of Energy/Albuquerque Operations Office Order 5820.2A, "Radioactive Waste Management."
tritium	radioactive (unstable) isotope of hydrogen having an atomic weight of 3, a half-life of 12.26 years, and a specific activity of 10,000 Ci/g; tritium decays to helium-3 (³ He) by emitting a 0.018 MeV beta particle.
WETF	Weapons Engineering Tritium Facility

EXPONENTIAL NOTATION

Many values in the text of this Environmental Assessment are expressed in exponential notation. An exponent is the power to which the expression, or number, is raised. This form of notation is used to conserve space and to focus attention on comparisons of the order of magnitude of numbers (see following examples).

Factor by which a unit is multiplied		Prefix	Symbol
1×10^{12}	1,000,000,000,000	tera	T
1×10^9	1,000,000,000	giga	G
1×10^6	1,000,000	mega	M
1×10^3	1,000	kilo	k
1×10^2	100	hecto	h
1×10^1	10	deka	da
1×10^0	1		
1×10^{-1}	0.1	deci	d
1×10^{-2}	0.01	centi	c
1×10^{-3}	0.001	milli	m
1×10^{-6}	0.000001	micro	μ
1×10^{-9}	0.000000001	nano	n
1×10^{-12}	0.000000000001	pico	p

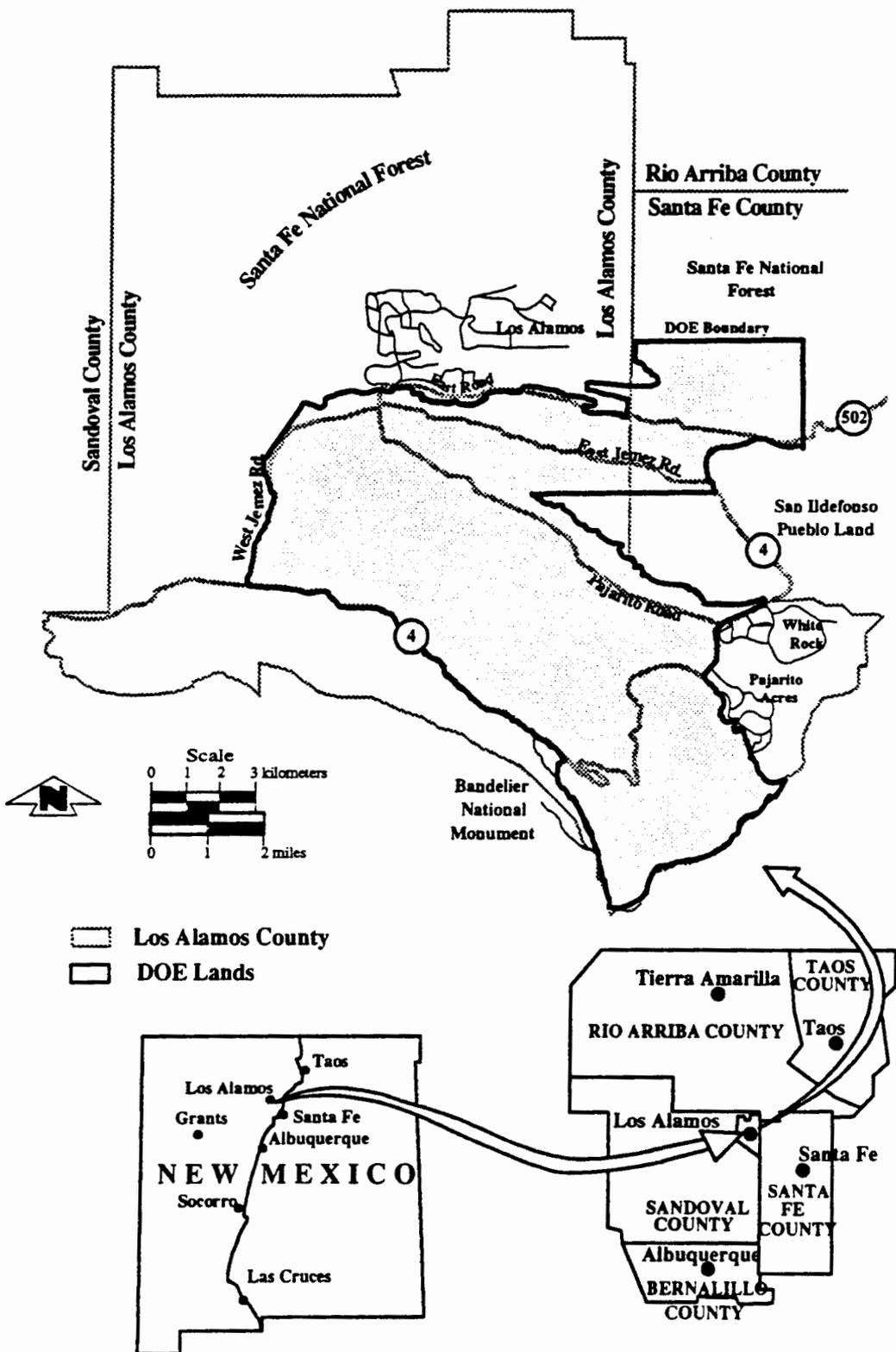


Figure 1. The Location of Los Alamos National Laboratory

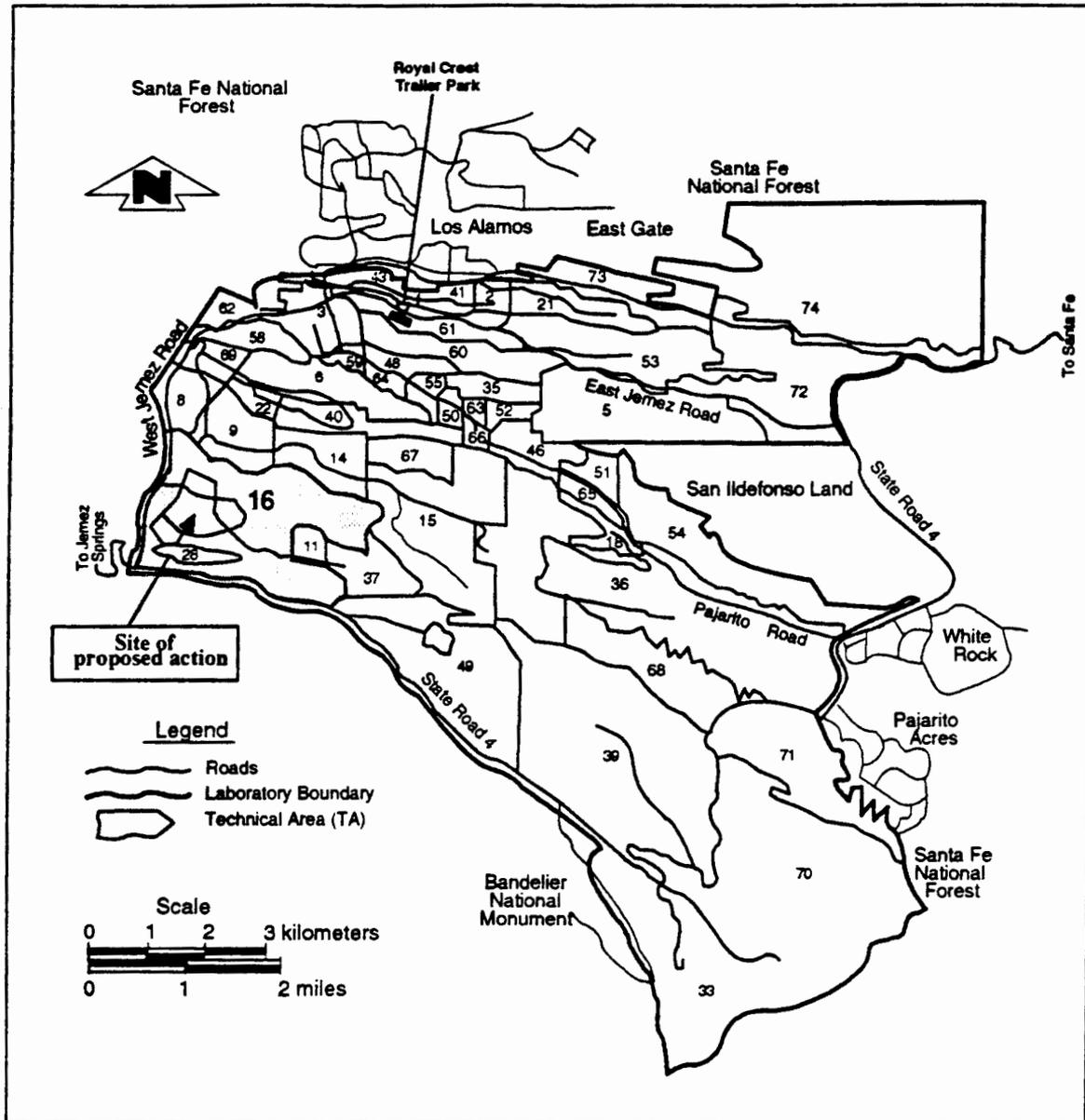
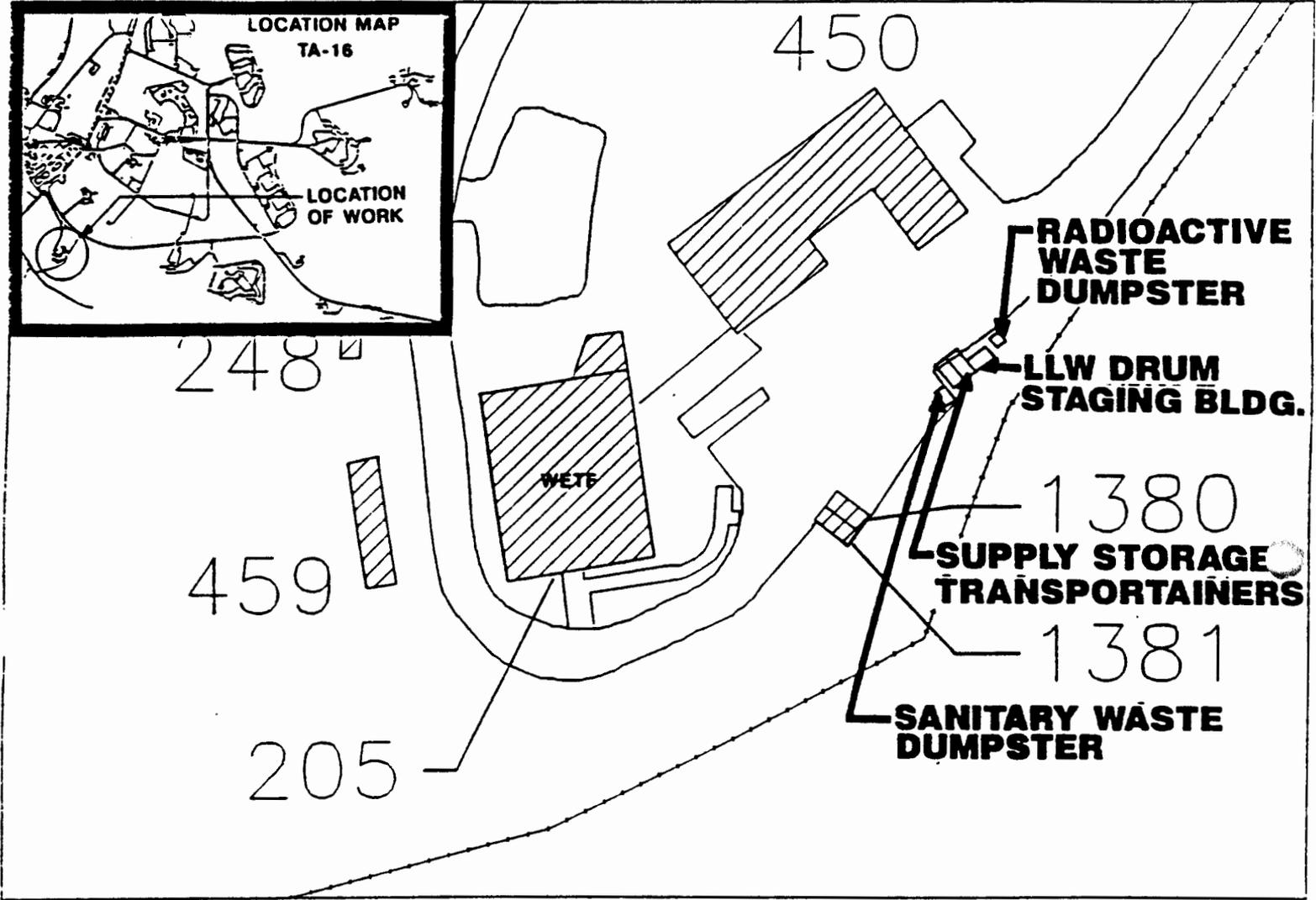


Figure 2. The Location of Technical Area 16 and Los Alamos populated areas

TA-16

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469497.



468922.

SCALE 1: 720.

469497.

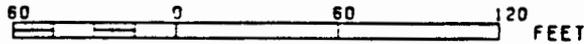


Figure 3. Location of the Proposed LLW Drum Staging Facility at TA-16

United States Government

Department of Energy

memorandum

DATE: July 29, 1994

REPLY TO
ATTN OF: Office of NEPA Oversight: Simpson:6-4600

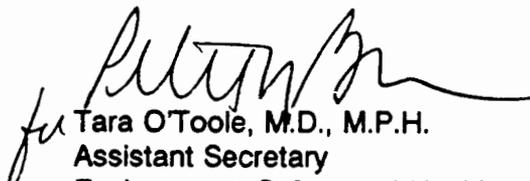
SUBJECT: Environmental Assessment and Finding of No Significant Impact for the Low-Level Waste Drum Staging Building at the Weapons Engineering Tritium Facility at the Los Alamos National Laboratory

TO: Victor H. Reis
Assistant Secretary for Defense Programs

On March 31, 1994, the Office of NEPA Oversight authorized you to transmit the subject environmental assessment to the State of New Mexico and the Pueblos of Cochiti, Jemez, Santa Clara, and San Ildefonso for their preapproval review. The State responded on June 3, 1994, that it viewed the proposed action as "environmentally benign," and counsel for San Ildefonso Pueblo noted on June 2, 1994, that the Pueblo did not have any substantive comments on the proposed action. Your NEPA Compliance Officer forwarded the responses to my staff on June 7, 1994, and requested that we proceed with approval of the environmental assessment and issuance of a finding of no significant impact.

Based on my staff's review and its recommendation, I have determined, after consultation with the Office of General Counsel, that the proposed action does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act and its implementing regulations (40 CFR Parts 1500-1508 and 10 CFR Part 1021). Therefore, an environmental impact statement is not required. Accordingly, the environmental assessment is approved as DOE/EA-0874, and I have signed the attached finding of no significant impact.

Your office is responsible for providing public notice of the availability of the environmental assessment and finding of no significant impact as required by 40 CFR 1506.6(b), 10 CFR 1021.322, and DOE 5440.1E, paragraph 6a(24). Publication of the finding of no significant impact in the Federal Register is not necessary since this is not an action with effects of national concern. Please send five copies and one electronic copy of the environmental assessment and distribution list to the Office of NEPA Oversight for our records.


Tara O'Toole, M.D., M.P.H.
Assistant Secretary
Environment, Safety and Health

Attachment

cc: Henry Garson, DP-24, NEPA Compliance Officer
Constance Soden, AL, Acting NEPA Compliance Officer

DEPARTMENT OF ENERGY

**FINDING OF NO SIGNIFICANT IMPACT,
LOW-LEVEL WASTE DRUM STAGING BUILDING
LOS ALAMOS NATIONAL LABORATORY**

PROPOSED ACTION: The United States Department of Energy proposes to construct and use a small prefabricated building to temporarily hold low-level radioactive waste at Technical Area 16 of the Los Alamos National Laboratory in Los Alamos, New Mexico. The proposed staging building is needed to make more efficient use of existing laboratory space, and to help reduce the radiation dose to workers. The proposed staging building would be a 3 meter (10 feet) by 4.5 meter (15 foot) [13.5 square meter (150 square feet)] prefabricated storage building to temporarily hold up to eight sealed 55-gallon drums of noncompactible tritium-contaminated solid waste before Laboratory waste management personnel transport them to the Laboratory's low-level radioactive waste disposal area at Technical Area 54. The proposed drum staging building would be placed on a bermed asphalt pad near other existing similar structures used for accumulating office trash and compactible low-level radioactive waste.

The proposed staging building would be used for non-compactible low-level radioactive waste from operations at the Weapons Engineering Tritium Facility (Tritium Facility). The Weapons Engineering Tritium Facility repackages small quantities of tritium (in laboratories inside the Facility) to meet precise requirements of experiments. In the course of this work, noncompactible waste is generated, such as used or broken valves, plumbing, pumps, sieves, etc. Because tritium, a radioactive gas, is used in these laboratories, the waste is presumed to be contaminated with small amounts of tritium. Up to ten drums of waste are generated per year. Space inside the Tritium Facility is limited, and only one drum for noncompactible waste can be stored inside the building. Workers inside the Tritium Facility

are exposed to releases of tritium when drums are opened to receive more waste, and, although the total personnel dose is well below five rem per year (the Departmental limit for worker exposure), continuing to keep the drums inside the building does not allow the Department to reduce the dose to workers.

The Department has prepared an environmental assessment (DOE/EA-0874) that compares impacts of the proposed action with those of continuing with present practices (the "no action" alternative). The Department considered, but dismissed as unreasonable, the alternative of using a staging building at another facility at the Laboratory.

ENVIRONMENTAL IMPACTS: The environmental assessment indicates that the environmental impacts from constructing and using the proposed staging building would be very small. The prefabricated building would be erected on an already-disturbed site adjacent to an existing building and would not impact any ecologically or culturally sensitive areas, including floodplains or wetlands. The proposed building would not affect the amount of waste generated and stored: the only difference between the proposed action and the "no action" alternative is whether the sealed drums would be stored and opened to receive waste inside the laboratory or inside the drum staging building. The individual radiation dose to the ten or less people working inside the Tritium Facility is estimated to range between 5 to 200 millirem per year; the dose to the individual who adds waste to the drums could be as much as 0.34 millirem per year (with a resulting risk of excess fatal cancer of 1.4×10^{-7}) in addition to the dose associated with other Tritium Facility operations. This dose would be the same whether the drum is in the proposed staging building or in the Tritium Facility, but workers inside the Tritium Facility would not receive this additional exposure if drums were filled in a

staging building. Under normal operating conditions, any tritium released from the waste drums would escape to the environment, regardless of whether the drums were inside the laboratory space or inside the proposed drum staging building. Under accident conditions, the dose to an individual in the adjacent building would be 6.6×10^{-3} millirem, yielding a 2.6×10^{-9} risk of excess fatal cancers. (A worker in the proposed staging building is assumed to immediately evacuate to the Tritium Facility.) The dose to a maximally exposed offsite individual from the proposed staging building under accident conditions would be 3×10^{-4} millirem, yielding a 1.5×10^{-10} risk of excess fatal cancers.

The Department consulted with the New Mexico State Historic Preservation Officer, the United States Fish and Wildlife Service, the New Mexico Fish and Game Department, and the New Mexico Department of Natural Resources to develop the impact analysis in the environmental assessment.

FOR FURTHER INFORMATION CONTACT: For further information on the proposal or the National Environmental Policy Act review program concerning proposals at the Laboratory, please contact:

M. Diana Webb
Los Alamos Area Office
U. S. Department of Energy
528 35th Street
Los Alamos, NM 87544
(505) 665-6353

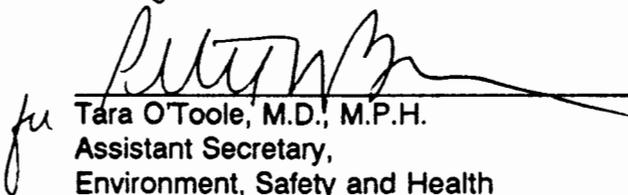
For general information on the Department's National Environmental Policy Act process,
please contact:

Carol M. Borgstrom, Director
Office of NEPA Oversight, EH-25
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585
(202)586-4600 or (800)472-2756

Copies of the environmental assessment are also available for public review at the Los Alamos National Laboratory Community Reading Room, 1450 Central Ave., Suite 101, Los Alamos, New Mexico 87544. For information on the availability of specific documents and hours of operation, please contact the reading room at (505) 665-2127, or (800) 543-2342.

FINDING: Based on the analysis of impacts in the environmental assessment, construction and operation of the proposed low-level waste drum staging building would not significantly affect the quality of the human environment within the meaning of the National Environmental Policy Act, 42 U.S.C. 4321, et seq. Therefore, the Department is issuing this finding of no significant impact and an environmental impact statement is not required.

Signed in Washington, D.C., this 29th day of July, 1994.


Tara O'Toole, M.D., M.P.H.
Assistant Secretary,
Environment, Safety and Health

memorandum

DATE: AUG 04 1994

REPLY TO

ATTN OF: LESH:4DW-066

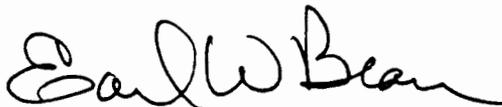
SUBJECT: Policy, Enhanced Stakeholder Involvement in the National Environmental Policy Act Review Process

TO: Joyce H. Laeser, Counsel, LAAO
Thomas W. Hornsby, Acting Counsel, LAAO
Daniel E. Glenn, Chief, FOB, LAAO
Juan L. Griego, Chief, PMB, LAAO
E. Dennis Martinez, Chief, ADM, LAAO
Joseph C. Vozella, Chief, ES&H, LAAO
Paul J. Maestas, Acting Chief, SNSB, LAAO

Attached for your information and implementation is the Los Alamos Area Office policy for enhanced opportunities for stakeholder involvement in the National Environmental Policy Act (NEPA) review process. This policy was formulated in response to an initiative by Area Manager Jerry Bellows following a Pecos Retreat last winter.

The policy provides for public involvement opportunities in the environmental impact statement and environmental assessment review process beyond those mandated by law, regulation, or the recent Secretarial NEPA Policy. Its implementation will fulfill our pledge to make both historical and future NEPA review documents available to the public, and to provide for meaningful public input early and often in the NEPA review process. Implementation of this policy will become even more important as the delegation of authority for environmental assessments moves from headquarters out to the field offices.

If there are any questions on this policy, please contact Diana Webb, NEPA Specialist, at (505) 665-6353.



Earl W. Bean
Acting Area Manager

Attachment

CC:
See page 2

AUG 04 1994

Addressees

2

cc w/attachment:

C. Borgstrom, EH-25, HQ
W. Dennison, GC-51, HQ
H. Garson, DP-34, HQ
G. Palmer, DP-34, HQ
J. Ordaz, DP-13, HQ
M. Kleinrock, EM-22, HQ
J. Farley, ER-8.2, HQ
R. Sharma, NE-474, HQ
M. Mazaleski, NN-30, HQ
J. Bellows, DS CRT 4B 172 FORS, HQ
B. Twining, OOM, AL
L. Apodaca, OIEA, AL
N. Dienes, EPD, AL
C. Soden, EPD, AL
H. Le-Doux, LAM, LAAO
L. Cummings, Counsel, LAAO
C. Armijo, LANL at LAAO
D. Webb, ES&H, LAAO
E. Withers, Scientech, LAAO
D. Erickson, ESH-DO, LANL, MS-K491
K. Hargis, ESH-8, LANL, MS-K490
D. Garvey, ESH-8, LANL, MS-K490
A. Pendergrass, ESH-8, LANL, MS-M887
H. Otway, SIO-DO, LANL, MS-A103

POLICY
ENHANCED OPPORTUNITIES FOR STAKEHOLDER INVOLVEMENT IN
THE NATIONAL ENVIRONMENTAL POLICY ACT REVIEW PROCESS

LOS ALAMOS AREA OFFICE, DEPARTMENT OF ENERGY
August 1994

The Los Alamos Area Office (LAAO), Department of Energy (DOE), recognizes the value of stakeholder involvement in making decisions regarding DOE activities and operations at the Los Alamos National Laboratory (LANL). A key element in the DOE decision-making process is the environmental impact review performed under the National Environmental Policy Act (NEPA). Among other things, NEPA governs the preparation of environmental impact statements (EISs) and their related records of decision (RODs), environmental assessments (EAs) and their related findings of no significant impact (FONSIs), and other documents. One of the purposes of NEPA is to afford the public input into the government's decision-making process, and to lay open that process to public scrutiny. Certain public participation opportunities are mandated by NEPA, its implementing regulations (40 CFR 1500), and DOE's NEPA compliance regulations (10 CFR 1021). The DOE "Secretarial Policy on the National Environmental Policy Act," June 1994, and the DOE Public Participation Policy, July 29, 1994, provide additional direction for enhanced public involvement. While LAAO will make every effort to meet these conditions, it is the intent of LAAO to go beyond the minimum requirements to serve the public good.

Therefore, it is the policy of LAAO to provide timely and meaningful opportunities for stakeholder involvement in the NEPA process, and to be responsive to stakeholder concerns. At a minimum, this shall be accomplished in the following ways.

Document Availability. LAAO will make NEPA review documents and other materials discussed below available for public review at the LANL Community Reading Room, 1450 Central Avenue, Suite 101, Los Alamos NM 87544, (505)665-2127.

Environmental Assessments.

Although there is no regulatory or procedural requirement for DOE to offer opportunities for public input into or review of EAs, it is the policy of LAAO to consult with the public and other stakeholders while determining the scope of analysis in an EA review, and to make EAs publicly available at the same time they are offered to the state and affected American Indian tribes for preapproval review.

- **Public Notice.** At the same time that DOE provides the state and affected tribes with early notification of the intent to prepare an EA, LAAO will provide additional public notice through news releases, etc., as appropriate.
- **Scoping.** As soon as practical after determining to do an EA, LAAO will consult with stakeholders to assist in determining the scope of analysis for the EA. This may be done through public meetings or workshops, requests for written comments, meetings with local governments, consultation with the state and affected American Indian tribes, or other means as appropriate for a given project. A summary of the scoping process, and the disposition of comments received, will be included in the EA.
- **Availability of Preapproval EAs.** At the same time that DOE makes EAs available to the state and affected tribes prior to final approval of the EA (and before making any decision as to whether to proceed with the project assessed), LAAO will make the EA available to the general public as well. At a minimum, this would include placing the preapproval EA (and related documents, if appropriate) in the Community Reading Room, and providing a copy of the preapproval EA to individuals and groups upon request. For projects with sufficient public interest, this would also include providing the public with the

opportunity to review and provide comments on the EA prior to its approval. In either case, public notice will be given through news releases, etc. as appropriate. A summary of comments received, and their disposition, will be included in the final EA or the FONSI.

- **Availability of Final EAs.** When DOE finishes an EA involving a proposal at LANL, LAAO will notify the public that the EA has been completed. This may be done through news releases, etc., as appropriate. A copy of the completed EA (and related documents, if appropriate) will be placed in the Community Reading Room, and copies will be provided to individuals and groups upon request.
- **FONSIs.** Normally, DOE will issue a FONSI concurrently with the completed EA. In some cases, LAAO may provide proposed FONSIs to the public for review and comment before issuing a final FONSI. Final FONSIs will include a summary of any comments received on the proposed FONSI, and their disposition. A copy of proposed and final FONSIs will be placed in the Community Reading Room, and copies provided to individuals and groups upon request. The public will be notified of the availability of proposed and final FONSIs through news releases, etc., as appropriate.

Environmental Impact Statements.

Providing the public with the opportunity for involvement is mandated at certain steps of the EIS process. Public input is requested during the scoping process, and the public is given the opportunity to review and comment on draft EISs before the final EIS is prepared. DOE requires that a public meeting be held during the scoping process and a public hearing be held in conjunction with the review of a draft EIS. In addition to these requirements, it is the policy of LAAO to maximize opportunities for public input into the NEPA review process, and facilitate public involvement, to the extent feasible.

- **Public Notice.** The NEPA process is initiated by publication of a Notice of Intent (NOI) in the Federal Register. Recognizing that not everyone has access to the Register, LAAO will supplement the NOI with additional public notice through news releases, fact sheets, or other ways as appropriate, and will similarly advise the public of items of general interest throughout the EIS process.
- **Meetings.** At a minimum, LAAO will conduct formal public scoping meetings and formal public hearings at Los Alamos and Santa Fe; meetings or hearings may be held in additional locations as needed. Informal workshops, informational meetings, progress reports, public tours, or other types of informal meetings as suitable for a given project may be held at LANL, Los Alamos, or other locations as appropriate, at any time during the EIS review process.
- **Scoping.** In addition to the formal public meetings typically held as part of the EIS scoping process, LAAO will provide informal opportunities for public involvement as described under "meetings." A transcript of formal meeting comments, summaries of informal scoping meetings, and copies of written comments will be made available as soon as possible in the Community Reading Room. A summary of the scoping process, and the disposition of comments received, will be included in the EIS; however it may not be feasible nor desirable to print in the EIS all scoping comments or a point-by-point comment response to scoping comments.
- **Draft EIS.** In addition to the formal public hearing held as part of the review process, LAAO will provide informal opportunities for public involvement as described under "meetings." A transcript of formal hearing comments, summaries of informal meetings, and copies of written comments will be made available as soon as possible in the Community Reading Room. The draft EIS, final EIS and other related material will be available for public review at the Community Reading Room.

RODs. RODs are generally published in the Federal Register. Recognizing that not everyone has access to the Register, LAAO will supplement the formal notice of the ROD with additional public notice through news releases, etc. A copy of the ROD will be placed in the Community Reading Room as soon as possible after it is signed, and copies provided to individuals and groups upon request.

Other NEPA Documents.

It is the policy of LAAO to make all NEPA documents related to DOE activities at LANL available to the public. This may include, for example, EAs or EISs prepared by another DOE office, correspondence documenting LAAO NEPA reviews, or other documents regarding the LAAO NEPA review process. Copies of NEPA review documents will be placed in the Community Reading Room, and copies of individual documents will be furnished to groups and individuals upon request.

With LANL's assistance, LAAO will make available in the Community Reading Room a complete historical record of past NEPA reviews. This primarily consists of EAs and FONSI, but will also include prior types of NEPA documents such as Memoranda to File, Action Description Memoranda, and other similar documents that are no longer prepared to document NEPA reviews. LAAO recognizes that not all past documents are still available, but will endeavor to provide a complete historical record to the extent possible.

Under DOE regulations, certain activities may be categorically excluded (CXed) from preparation of an EA or EIS. DOE requires that certain CXs be documented. For LANL projects, this is typically done by preparing a Department of Energy Environmental Checklist (DEC) and a formal DOE CX determination memorandum. Completed CX documents will be made publicly available; however, LANL DEC's that have not culminated in a formal DOE NEPA determination are considered predecisional and will not normally be considered available for public review.

Affected Stakeholders.

Public participation in the NEPA process includes the role of the State of New Mexico, American Indian tribal governments, and other local or federal agencies as well as the general public. Although the opportunity to participate is extended to any affected Indian tribe, under the Accords signed in 1992, the four Pueblos of Cochiti, Jemez, Santa Clara and San Ildefonso are understood to be affected tribes and their tribal governments will be offered participation opportunities. Other tribes may identify themselves as affected by a particular project, and their governments will be given special consideration throughout the duration of that specific NEPA review.

LAAO recognizes that employees of LANL and DOE are stakeholders with an interest in the NEPA process. Employees are encouraged to participate in and become informed about NEPA reviews for LANL projects. However, individual employees speaking in a public setting should indicate whether they are speaking on behalf of LANL or DOE, or as individuals.

Commenting.

DOE is required to solicit comments from the state and local governments, affected Indian tribes, other federal agencies, and the general public at specific times in the NEPA review process. In general, DOE is required to seek public comments as part of the scoping process for an EIS, on a draft EIS, and on a proposed FONSI. As discussed above, LAAO may seek public comments at other times in the NEPA review process, such as to determine the scope of an EA. The public may choose at any time to provide comments to LAAO regarding a specific NEPA review, or the NEPA review process in general. LAAO will make every effort to answer these comments in a timely manner, and will consider substantive comments in the next appropriate step of an ongoing NEPA review.

Coordination with Other Offices.

LAAO will coordinate opportunities for stakeholder involvement with other DOE offices, particularly DOE headquarters and Albuquerque Operations Offices, and with LANL. LAAO will involve other DOE field offices if relevant for a specific project. LAAO will work with the public affairs officer of these other offices to ensure that consistent and timely information is provided to the public. LAAO will provide copies of correspondence and information sheets concerning stakeholder involvement opportunities to headquarters and Albuquerque program and NEPA oversight elements, and to LANL staff. LAAO will invite headquarters and Albuquerque public affairs, program, and NEPA oversight personnel to participate in public meetings and workshops as appropriate.

Effective Date.

This policy shall become effective immediately. For new NEPA reviews, all steps of the review will be subject to the provisions above. For NEPA reviews already underway, the provisions above will apply to those steps in the review process that have not yet occurred. While completed portions of ongoing reviews need not be redone, consideration may be given to incorporating increased opportunities for stakeholder involvement to the extent feasible.

Date: 8/3/94

By: 
Earl W. Bean
Acting Area Manager