



NEW MEXICO  
HEALTH AND ENVIRONMENT  
DEPARTMENT

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GARREY CARRUTHERS  
Governor

LARRY GORDON  
Secretary

CARLA L. MUTH  
Deputy Secretary

MEMORANDUM

TO: Louis Rose, HED Office of General Counsel

THRU: Kirkland Jones, EID Deputy Director  
Jack Ellvinger, Program Manager

FROM: C. Kelley Crossman, Environmental Supervisor *CKC*

DATE: October 7, 1987

SUBJ: Request for Legal Opinion

The attached DOE memorandum appears to document violations of the State Hazardous Waste Management Regulations as I have annotated thereon. The attached EID NOV and DOE's responses represent our latest attempt to get an accurate and complete listing from DOE of what RCRA regulated activities are taking place at LANL.

On September 22 I visited LANL for a technical discussion on the permit application. I was briefed on facility modifications to the incinerator and treatment tanks and one additional treatment process was discussed. No mention of the violations cited in the DOE memo was made. I verbally gave LANL permission to update the application to reflect the info discussed if it was submitted by Thanksgiving (Nov 26, 1987).

The week of July 13, 1987, EPA and EID inspected LANL. No mention of the DOE memo was made by DOE.

Several courses of action appear feasible and a legal opinion on the most appropriate one, or an alternative, is needed.

1. Write DOE, attaching the memo, and ask for an accurate Part A and Part B application.
2. Write DOE, attaching the memo, and deny a permit for the units mentioned in the memo, citing 302.A.1.b.(2)(c) and call for their closure plans, citing 206.C.2.c.(3)(a).
3. File in court for failure to notify, citing 302.C.1.a and the attached NOV correspondence.
4. Cite DOE for a violation of 302.C.1.a and give them 30 days to respond I.A.W. 302.C.1.b, using the memo as justification.
5. Issue a compliance order based on the memo and the NOV and subsequent correspondence. This may be complicated by our Jan 30, 1987 acceptance of the application.



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MEMORANDUM

TO: Kirkland Jones, Deputy Director  
THRU: Jack Ellvinger, Program Manager  
FROM: C. Kelley Crossman, Environmental Supervisor *CKC*  
DATE: October 6, 1987  
SUBJ: LANL Environmental Audit

EPA Region VI provided the attached DOE memorandum which documents that LANL has been less than truthful and thorough in reporting their RCRA activities. I've provided an advance copy to Pat Anderson in HED Office of General Counsel and will follow up with a legal opinion request through channels.

# Memorandum

*copy*

DATE: JUN 16 1987

OFFICE OF: EH-24

SUBJECT: Status of the Los Alamos Environmental Survey

RECEIVED

JUN 16 1987

TO: John R. Barker  
Director  
Office of Environmental Audit

HAZARDOUS WASTE SECTION

### Survey Milestones

We conducted the on-site activities phase of the Environmental Survey at the Los Alamos National Laboratory (LANL), in Los Alamos, New Mexico, between March 30 through April 17, 1987.

In preparation for the 3-week on-site Survey, we made a pre-Survey site visit to LANL from February 10 through 13, 1987, with representatives from the Albuquerque Operations Office (ALO), the Los Alamos Area Office (LAAO), the University of California (the prime contractor for the site, hereinafter referred to as LANL), additional contractors, and interested Federal and state agencies. We presented the purpose, scope, and approach of the Environmental Survey and were presented an overview of the laboratory's operations, environmental programs, and related activities being performed at LANL.

The Environmental Survey team is currently developing the sampling and analysis request forms with the assistance from the Idaho National Laboratory (INEL). A pre-sampling site visit for the sampling team occurred on May 11 through 13, 1987. The on-site sampling effort for the site is tentatively scheduled for the fall of 1987.

The Preliminary Report for the LANL Survey is currently in preparation and should be available in November 1987.

### Operations Office and Site Contractor's Support

We had the cooperation of the ALO, LAAO, and the contractor during the 3-week on-site portion of the Survey. There appeared to be management support from both DOE and the contractor. The contractor personnel were knowledgeable about the Survey and were accommodating to any adjustments and revisions in the team members' schedules.

### Preliminary Findings

A brief summary of the principal initial Survey findings is presented below. These findings are presented under the four categories developed for use in the Survey.

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These findings are preliminary in nature pending the progress of the Preliminary and Interim reports. The team is reviewing data that became available toward the end of the Survey. As a result of this review, some of these observations may be modified and others that do not appear here may be presented in the reports. ALO, LAAO, and LANL have been made aware of these preliminary findings through the briefings held during the Survey and the formal closeout meeting held on Friday, April 17, 1987.

#### Category I

- o None

#### Category II

- o As a result of inadequate drum management practices, there have been releases of oil and hazardous materials from a large number of chemical drums used on-site which could contaminate soils and surface runoff with potential for additional releases from drums which are not now leaking.
- o There are numerous PCB transformers that have pinhole leaks and/or have the potential to leak and contaminate the environment.
- o There is a lack of effective characterization and segregation of waste resulting in hazardous waste entering radioactive waste disposal areas and sanitary landfill areas. As a result of this lack of characterization and segregation of waste, there is a potential for hazardous and mixed waste disposal into an unpermitted hazardous waste landfill at TA-39. Additionally, the TA-54 Area G Radioactive Waste Landfill is receiving mixed waste, particularly from the TA-3-66 Sigma Building foundry and possible organics contaminated dewatered sludge from TA-50-1. Finally, the sanitary landfill is receiving hazardous waste in the form of scrap lead and waste cleaning solvents from numerous LANL operations.
- o There is an unpermitted and unmonitored discharge of high explosives (HE) and solvents to the soil at Building TA-16-478.
- o There is potential organic and inorganic contamination in the soils from permitted NPDES outfalls Nos. 058, 062, 038, and 051. The NPDES permits at these facilities do

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not regulate or analyze for certain organic and inorganic contaminants which are discharged including barium, beryllium, solvents, heavy metals, and some radionuclides.

### Category III

- o Chemical contaminants potentially were released to soils in the former TA-1 and, if so, may remain as a direct threat to the public.
- o Site activities have resulted in the release of radionuclide contaminants into several of the canyons transecting the site with, in some instances, eventual transport to the Rio Grande at levels slightly above background.
- o There is the potential for groundwater contamination with organic contaminants at the Area L hazardous waste disposal site and to a lesser extent a radioactive disposal site at Area G via vapor phase flow of organics that have already been detected to depths of 100 feet.
- o There are approximately 165 inactive waste sites consisting of landfills, open dumps and boneyards, liquid waste disposal areas, unplanned releases, inactive firing sites, and miscellaneous areas which are potential sources of environmental problems.
- o There is a potential for additional inactive sites containing hazardous substances which may be identified if the site undertakes additional interviews with current and former employees as well as a more formalized search through the Pan Am/Zia files.
- o There is surface contamination of plutonium-239 at TA-49 from Areas 2 and 11 which is moving with the surface water runoff.
- o The soils at all of the 26 active firing sites have potential HE and barium contamination.
- o As a result of drum spillage or leakage, there are several areas of soil contamination of oil and hazardous materials.

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- o There is potential tritium contamination of soil at Building TA-33-86 due to potential seepage of tritium containing water from the nearby pit.
- o There is potential HE and solvent contamination of soils from TA-16-340 (NPDES outfall 054) due to an undersized wier box and trough.
- o The three active burning areas including the TA-14 incinerator, TA-14 trash area near Firing Site 28, and TA-36-Slobovia have the potential to contaminate the surrounding soils.
- o Two surface impoundments in TA-35 are potentially contaminated with hazardous waste.
- o The TA-53 lagoons are potentially contaminated with hazardous waste from machine shop operations.
- o There is the potential for releases of oil and hazardous materials from non-existent or inadequate secondary containment.
- o There is the potential for undetected releases of hazardous and radioactive liquids to surface and subsurface soils from several underground tanks.
- o There is the potential for releases of hazardous waste from the TA-46-88 and TA-3-66 waste tanks due to lack of berms or overflow preventors.
- o There is the potential for release of pesticides to the soil from inadequately contained pesticides/herbicides storage sheds at TA3-SM-1494.
- o There is potential contamination of soils with radionuclides at the TA-53 lagoon outfall.
- o There is a potential for contamination of surface soils with lead resulting from the use of the lead shots, lead shavings, lead sheeting, and lead bricks which are stored directly on the ground, in unprotected and unbermed locations.
- o There are fifteen structures contaminated with HE at LANL that may pose a threat to the environment should a fire or explosion occur.

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- o There is the potential for releases of asbestos to the environment from several sources including asbestos installation on exterior steamlines, from abandoned buildings with loose asbestos and open doorways, and from catastrophic destruction (by fire or explosion) of a building containing asbestos.
- o Former underground experiments at TA-15, TA-33, and TA-49 have left in-place chemical and radiological contamination in underground soils.
- o The performance check samples and performance reference samples used in laboratory analysis are easily identified which could lead to special care being taken during these analysis which could bias the quality assurance.

#### Category IV

- o Hazardous waste is stored on the LANL site for periods in excess of 90 days without the required RCRA approvals. In addition to waste stored in deteriorating containers, certain buildings are used to store known hazardous waste without notification to regulatory authorities.
- o The once-through cooling water discharge at TA-53-18 is not included in the permit.
- o Some of the groundwater monitoring wells are not adequately secured to prevent well contamination or destruction.
- o There is a potential for cross-contamination of monitoring wells that are sampled with a bailer secured by hemp rope.
- o An unused emergency radioactive waste holding tank at TA-2 has no secondary containment and is located on asphalt paving directly above a structure which diverts surface runoff to the creek and in Los Alamos Canyon. If this tank were ever used and there was a release of radioactive waste, they would flow directly to Los Alamos Canyon.

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- o Many of the ambient air sampling stations that monitor airborne uranium, plutonium, and tritium concentrations are situated so close to buildings that representative airflow to the samplers is restricted.
- o LANL does not have a consistent policy for labeling asbestos. This could lead to confusion and, as a result, unnecessary exposure.
- o The methods of sampling, analysis, and data reduction of the emissions from LAMPF have been developed and are conducted by one person and are not subject to normal quality assurance reviews nor have objective methods for quality control been established.
- o The range of values used to calibrate the PH meter for surface water samples was not within common laboratory practice.
- o Samples which were being collected for cyanide analysis were not being properly fixed in the field.
- o A 30-gallon container of magnesium metal was stored with an unsecured cover in TA-39.

#### Sampling and Analysis

Three representatives from INEL visited LANL during the third week of the Survey and returned on May 11-13, 1987. During these visits, they held discussions and gathered data concerning the INEL Health and Safety Plan, discussed preliminary sampling requests with Survey team members, toured the potential sampling locations, and coordinated sampling logistics with Survey and LANL officials.

The thrust of the sampling and analysis will be to fill in data gaps identified during the Survey and which are necessary to ensure proper identification of environmental problems. The proposed samples are primarily media specific (i.e., soil/sediment, surface water, air, and groundwater). Each

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sample request relates to one of the Category II or Category III findings discussed above and is intended to address either 1) whether a contaminant is present or 2) whether the identified contaminant or condition represents a hazard or potential hazard to human health or to the environment.

*Richard J. Aiken*

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Environmental Survey  
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*for Richard J. Aiken*  
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