

5/90

FACT SHEET
FOR
LOS ALAMOS NATIONAL LABORATORY (LANL) HSWA PERMIT

BACKGROUND

Size, Location, and History of Facility

Los Alamos National Laboratory is 43 square miles in size and is located adjacent to the town of Los Alamos, New Mexico. It is located on a mesa and canyon landscape, with relief averaging about 300 feet (from tops of mesa to canyon bottoms). The majority of the buildings/technical areas are located on the mesa tops. Rainfall is approximately 18 inches per year.

Los Alamos has been in operation since the early 1940's. It is government owned (by DOE) and contractor operated (by University of California). It was here that research and development of the first atomic bomb occurred. Throughout its history, Los Alamos has done experimental research on nuclear weapons. Disposal areas from those activities started in the early 1940's and continued into the eighties.

Ground Water

There are 2 basic ground water regimes at LANL; a saturated zone which is 800 to 1000 feet below the surface, and a perched zone, which is found only in certain areas within the 15 major canyons. In this perched zone, water ranges in depth from 5-15 feet from the surface. The deep zone is the source of drinking water. It shows no sign of contamination at this time.

State (NMEID) RCRA Permit

The State permit has provisions for the proper handling, treating, and storing of hazardous waste. RCRA units at Los Alamos include a incinerator, storage of waste in tanks, and containers. The State set radiation limits for emissions from the incinerator, citing the States' omnibus authority. Consequently, DOE has appealed the permit, stating the State has no authority to regulate radiation from the incinerator.

EPA HSWA Permit

The HSWA permit requires DOE to investigate and take corrective action on those Solid Waste Management Units (SWMUs) identified by EPA. It is estimated that 75% of those SWMUs contain waste with radionuclides and hazardous constituents. Therefore, EPA has required DOE to monitor for radionuclides and hazardous constituents in the permit.

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A total of 603 SWMUs have been listed for an RFI, but LANL believes the final number will be over 1000. RFI Task/Site specific workplans are due on the 61 most environmentally significant SWMUs one year from the permit effective date. Within 2 years, another 150 additional SWMUs must have workplans submitted. Within 3 years, over half of the 603 SWMUs must have workplans submitted. Within 4 years, all SWMUs must have workplans submitted. Within 10 years, CMS Final Report for all SWMUs must be submitted.

PERMITTING PROCESS/HISTORY

Los Alamos HSWA permit process began in November 1988. Since that time, there have been numerous meetings, correspondences, and communications (see Attachment 1, Chronology of Meetings).

The first time DOE was aware that Region 6 would include radionuclide monitoring in the permit was in early April, 1989. In fact, during the time the pre-draft permits (from March 1) was being developed, DOE included/participated in developing model language for the HSWA permit. During the public comment period, which was extended an additional 60 days, LANL made no written or oral comments indicating they were opposed to radionuclide monitoring. In fact, DOE made official comments correcting the HSWA permit to include an additional radionuclide for monitoring (see Attachment 2). The first time DOE disagreed with radionuclide monitoring in the permit, was April 3, 1990, almost 1 year from the date they were initially informed of that requirement (see Attachment 1, Chronology Page).

In conclusion, DOE has had ample time to object to radionuclide monitoring in the permit. Region 6 has worked diligently and closely with DOE during this 1 1/2 year permit process. Therefore, Region 6 feels it is inappropriate for DOE to appeal the HSWA permit for radionuclide monitoring.

AUTHORITY ISSUE

Region 6 has required monitoring and reporting of radioactive constituents at SWMUs in the HSWA permit. EPA's authority to inspect and to obtain samples of hazardous waste under Section 3007 of RCRA, 42 U.S.C., Section 6927, includes the implied authority to do so with safety and accuracy. Consequently, it is considered appropriate and necessary to require in this permit, the reporting of radioactive constituents in order to:

- 1) Ensure health and safety of EPA and contractor personnel while on site, and during sampling;
- 2) be able to safely transport and accurately analyze any sample which may be contaminated with radionuclides;

- 3) be able to understand the migration of hazardous constituents by using radionuclides as tracers; and
- 4) to approve the appropriate corrective measures at the site, in order to protect human health and the environment during the remediation process.

In addition to the above reasons, Los Alamos is one of the few DOE facilities (see Attachment 3) which are not on the CERCLA National Priorities List, Region 6 Superfund is not involved. Under CERCLA, radionuclides are regulated. Therefore, radionuclide monitoring is needed in the HSWA permit for this particular facility.

In summary, Region 6 could be endangering its employees, its contractors, and the health of the citizens, without this information. Furthermore, Region 6 believes it would be greatly restricted in determining and implementing the proper environmental protection needed at this facility.

ATTACHMENT 1

CHRONOLOGY OF MEETINGS WITH LANL

November 7, 1988 - Conference call with LANL on HSWA Permitting issues and the schedule (Branch Chief level in attendance).

December 18-22, 1988 - Met with LANL to visit SWMUs and talk about HSWA permit issues (Branch level in attendance). Gave them a model HSWA permit. Started drafting HSWA permit.

January 25, 1989 - Met with Al Valentine of Los Alamos on HSWA permit (Branch Chief level in attendance).

March 1-5, 1989 - Met with DOE/LANL on HSWA permit provisions. DOE/LANL provided some model language to EPA then (Branch Chief level)

March 14, 1989 - Sent 1st pre-draft HSWA permit to LANL.

March 24, 1989 - Met with LANL on HSWA permitting (Section Chief level).

April 5, 1989 - Sent a revised pre-draft HSWA permit to LANL. This copy had radionuclide monitoring required.

April 18, 1989 - Sent a revised pre-draft HSWA permit to LANL.

April 25, 1989 - Sent a revised pre-draft HSWA permit to LANL.

May 1, 1989 - Sent a revised pre-draft HSWA permit to LANL.

May 10, 1989 - Public notice of LANL HSWA permit.

May 16-18, 1989 - Visit LANL to see SWMUs and talk about HSWA permit (Branch Chief level).

June 1, 1989 - Public notice date extended to July 18.

July 17-19, 1989 - Public hearing on State RCRA permit, talked to LANL/DOE officials about HSWA permit. EPA hearing is rescheduled for August 7th (Branch Chief level in attendance).

August 7, 1989 - EPA HSWA permit hearing, discussed HSWA permit provisions with LANL/DOE officials. EPA mentions in the hearing that radionuclide monitoring will be required in the permit. Public comment period is extended to August 25 (Branch Chief level in attendance).

November 29, 1989 - Site visit to LANL to look at SWMUs and other technical work being done (Branch Chief level in attendance).

February 15, 1990 - Met with LANL/DOE on HSWA corrective action technical details (Section Chief level).

March 8, 1990 - LANL HSWA permit signed and sent to DOE/LANL.

March 19, 1990 - Typographical correction error sent to LANL/DOE.

April 3, 1990 - Meeting with DOE/LANL on radionuclide monitoring provisions in the permit. DOE indicates they might appeal (Section Chief level). **First time DOE objects to radionuclide monitoring in permit.**

April 6, 1990 - Extended effective date of LANL permit until April 23rd due to DOE not receiving permit until March 15, 1990.

Numerous phone calls with DOE/LANL on HSWA permitting issues during the 1 1/2 year period.

MODULE VII

Section VII A. 2. (p.43)

LANL is subject to and must comply with state and federal air standards and regulations under the Federal Clean Air Act and the New Mexico Air Quality Control Act. There is no authority, however, for EID to include compliance with such requirements as part of this hazardous waste permit. This provision could unfairly subject LANL to double penalties under both the air Acts and the hazardous waste regulations.

MODULE VIII

Section A.4. (p.1)

This section requires notice within 24 hours of any release from a solid waste management unit. Release is broadly defined and by its terms includes any quantity, even de minimus amounts with no potential for any significant impact on the environment or human health. An inordinate amount of time and effort may be required to report even trivial amounts. LANL requests that this definition be further refined to include some criteria for types and quantities of releases which must be reported.

15 days

Section B.4. (p.2)

This section appears to be mooted by the addition of the new sections F. and G. which also deal with notification requirements for discovery of, and releases from, newly-identified solid waste management units. Section B.4 contains provisions which directly conflict with Sections F. and G. and LANL requests that it be deleted.

Section B. Perched Zone Monitoring (p.5)

This section requires the installation of the monitoring wells to be completed within 90 days of the effective date of the permit. LANL is informed that the permit will likely be issued in November. Although LANL will begin installation of the wells this fall, during the winter months, the canyons where the wells will be installed are largely inaccessible due to snowfall and winter conditions. Winter conditions are followed by spring runoff, and if there is significant snowfall, the canyons may not be accessible until May. The 90-day completion date is therefore unrealistic and LANL requests that it be changed to 270 days from the effective date of the permit.

The last paragraph, second sentence should read, "238 Pu, and 239Pu, 240 Pu" rather than "238, 240 Pu."

ATTACHMENT 3

OTHER DOE SITES

HANFORD

IAG using CERLA for rad - on the NPL

INEL - not yet addressed

Lawrence Livermore

3008(h) order, not yet final
attempting to add rads

Savanaugh River - RCRA permit, No Rad monitoring

Fernald

IAG using CERCLA for Rad - on the NPL

Rocky Flats - State of Colorado has HSWA Authority and will require radionuclide monitoring. Also IAG using CERCLA Authorities for dual Approach.

Oak Ridge

The permit includes in the definition of hazardous constituents:
"Hazardous constituents also include radionuclide from waste not excluded under 40CFR 261.4(a)(4).

LANL

Radionuclide monitoring requirements are required in the permit for all 603 SWMU's to be investigated. This includes all special groundwater and unsaturated permit conditions. Radionuclide monitoring requirements are mentioned in several pages of the permit (over 20 pages). None of the SWMU's at LANL made the NPL. **Superfund is not involved.**