TA 04

Notice of Deficiency
Los Alamos National Lab
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LANL HSWA

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LANL HSWA ENF/PERMIT

Definitions

(1) A solid waste is defined in 40 CFR Part 261.2. Materials excluded from regulation as solid wastes are defined in 40 CFR 261.4(a).

(2) A solid waste management unit (SWMU) is defined as any unit, which at a minimum, includes any landfill, surface impoundment, waste pile, land treatment unit, ditch, incinerator, tank, (including storage, treatment, and accumulation tanks), sump, container storage unit, injection well, wastewater treatment unit, elementary neutralization unit, transfer station, and recycling unit that receive, or have received, solid or hazardous waste at any time.

(3) Hazardous wastes are those wastes characterized or listed in 40 CFR Part 261 Subpart C.

(4) Hazardous constituents are those constituents listed in Appendix VIII of 40 CFR Part 261.

(5) A release is defined as any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposal into the environment.

General Comments (Regulatory requirements 40 CFR Part 264.101)

(6) The information LANL provided regarding SWMUs and prior or continuing releases from these units in Attachment 2b (also Section 1.0 of the Part B) is incomplete.

For most areas, LANL discussed radioactive contamination at each site and did not discuss whether hazardous wastes or hazardous constituents were placed in each unit or if any releases had occurred. On page v of this document, LANL indicates that non-radioactive inactive waste disposal sites are part of the Comprehensive Environmental Assessment and Response Program (CEARP). LANL needs to submit information regarding all active and inactive non-radioactive SWMUs and all active and inactive radioactive SWMUs which may have received hazardous waste or hazardous constituents.

(7) In reviewing the NPDES file (NM0028355) it is not clear which NPDES discharges have SWMUs associated with them. For example, the lined lagoon used to enhance settling of solids at the TA 16-401, 406 Burning Pit may be a SWMU. LANL must provide the information requested in Comment 9 for this unit and any other units associated with the NPDES discharges.

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(8) LANL needs to provide a list of all the active and inactive SWMUs, by area and name, which are represented by the "X"'s in Attachment 2, Item 1. It appears that Attachment 2a is an attempt to list the active SWMUs. However, the completeness of this list is questionable since the landfills at Area L and Area P are not listed. When completing Attachment 2a, LANL should list, by type of unit, which units are active and inactive.

(9) LANL needs to provide the following information for each SWMU, if it has not already been provided in the Part B application:

- Type of SWMU (i.e. landfill, recycling unit, etc.);
- size/dimension of the unit;
- description of the unit, as detailed as possible;
- the type(s) of waste(s) managed at the unit;
- quantities of waste handled;
- dates the unit was in use, or if active, the date the unit began operation;
- management practices; and
- the location of the unit (topographic map which has a scale drawing which shows the unit's location).

If this information is not available in the record for all units, LANL should incorporate the investigation of each unit for hazardous waste and hazardous constituents into the ongoing site characterization (attachment 2b, draft document of October 16, 1984, and the CEARP for non-radioactive sites) for each unit or site. This would prevent LANL from being required to reinvestigate each site solely for the purposes of the HSWA. However, the EPA should review and approve any investigation LANL develops to ensure that it meets the requirements of the HSWA.

(10) LANL needs to submit information on known or potential releases from all SWMUs. Information on each release, or potential release, should include:

- The date of the release or when the release was detected;
- type of waste released, be as specific as possible;
- quantity of waste released;
- extent of contamination; and
- remedial action taken.

(11) LANL needs to submit a summary of any sample (soil, surface water, and/or groundwater) analysis for releases from SWMUs which may have been taken or will be taken as part of SWMU investigations for the purposes of these requirements. The following information needs to be included:

- The type of sample (soil, surface water, or groundwater);
- location of the sample (areal and vertical location, provide a map which shows sampling location in relation of the unit);

- sample collection, preservation and shipment procedures;
- analysis method;
- chain-of-custody procedures; and
- quality assurance and quality control procedures.

(12) The following areas need to be located on Figure 21 of the Part B dated January 1986.

- TA-4 Alpha Site
- TA-5 Beta Site
- TA-7 Gomez Ranch Site
- TA-12 L-Site
- TA-19 East Gate Laboratory
- TA-20 Sandia Canyon Site
- TA-26 D-Site
- TA-27 Gamma Site
- TA-29
- TA-31 East Receiving Yard
- TA-32 Medical Research Lab
- TA-47 BR-Site
- TA-51 Radiation Exposure Facility

(13) Is the schedule outlined in Table I of Attachment 2b still valid?

If not, submit a revised schedule to EPA and the information that has been developed and gathered at this time.

If so, submit the information that has been developed and gathered which, according to the schedule should be:

Sites	Phase
Priority 1	I
	II
	III
Priority 2	I
	II
Priority 3 & 4	I

Site-specific Comments (Regulatory requirement 40 CFR Part 264.101)
(These comments are based on EPA file reviews to determine available information on additional SWMUs which were not included in the June 18, 1985, submission, and the January 1986 Part B permit application. The information requested is not all inclusive and the EPA expects that there are numerous SWMUs for which the EPA does not have information. For these SWMUs, LANL will need to respond by providing the information requested in Comments 9, 10, and 11.)

(14) Attachment 2h is a LANL memorandum dated February 15, 1983, regarding an inspection of the disposal shafts in Area L. It states that disposal shafts 25 and 26 had a strong odor of benzene and toluene during the inspection. Also, construction of two nearby shafts was stopped when strong oil or solvent odors were encountered. This release was not discussed in the groundwater monitoring waiver request and not addressed in the Area L closure plan. LANL must provide more information about this release which, at a minimum, must include:

- The waste and quantity of waste which may be the cause of the release;
- the location of such wastes, shafts 25 and 26, and the uncompleted shafts need to be provided on a map of a scale of 1 inch equal to 50 feet;
- the depth at which the odors were encountered in the unfinished shafts;
- the extent of areal and vertical contamination;
- the results of any sampling performed (see Comment 11 for the required information to be submitted); and
- the type and extent to which corrective action has been implemented.

If LANL has not determined any of the above information, LANL needs to develop a remedial investigation plan for EPA to review and approve prior to LANL initiating an investigation at Area L.

(15) In Part B Revision 1.0, Appendix O, which was removed from the January 1986 Part B, LANL proposed a vadose zone monitoring program for Area L. Has this program been implemented?

If so, LANL needs to submit all data and information which has been gathered to this date.

If not, LANL should further develop the plan to include additional core sampling in the area of shafts 25 and 26. Also, LANL should submit the plan to EPA for approval to ensure it meets the requirements of the HSWA.

(16) Section B.2 of the groundwater monitoring waiver dated November 1, 1984, discusses an evaporation surface impoundment for non-hazardous aqueous waste. The impoundment is a SWMU. LANL needs to provide the analysis of the waste disposed of in the impoundment, the location of the impoundment, and describe the possibility of the waste containing hazardous constituents.

(17) LANL needs to provide the required information in Comment 9 for the sumps at:

- TA 16-260, High Explosive Machining Facility;
- TA 16-265, 267, High Explosive Subassembly Building; and
- TA 16-300 through 307, High Explosives Casting and Inert Grinding Facility.

(18) LANL needs to provide information regarding releases from the waste transfer, packaging, and storage facilities and the treatment tanks at Area L.

(19) LANL needs to provide information regarding the management practices which prevent runoff of hazardous constituents from the three (3) sand pads at TA-16, since the pads are only bermed or diked on two sides.

(20) How often are the two (2) sand-filled metal pans at TA-16 emptied and inspected for their structural integrity and potential releases?

TA-50 Incinerator (Regulatory requirement 40 CFR Part 264.343(a)(2))

(21) An incinerator burning hazardous waste F027 must achieve a destruction and removal efficiency (DRE) of 99.9999% for each principal organic hazardous constituent (POHC) designated (under 40 CFR Part 264.342) in its permit. This performance must be demonstrated on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each POHC from the equation in 40 CFR Part 264.343(a)(1).

(22) LANL should spike their waste with POHCs at concentrations of at least 1% (10,000 ppm) since a DRE of 99.9999% is required for F027 waste.