



Kieling, John, NMENV

From: Rhgilkeson@aol.com
Sent: Tuesday, May 11, 2010 2:35 PM
To: Kieling, John, NMENV
Cc: rhgilkeson@aol.com
Subject: RH Gilkeson Public Comment with recommended changes to Section 1.8 DEFINITIONS
Attachments: Suggested Changes to Section1.8 Definitions.doc

Attached see R H Gilkeson Public Comment Suggested Changes to Section 1.8 Definitions for the LANL Draft Permit.

Robert Gilkeson, Registered Geologist

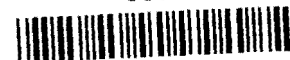
PO Box 670

Los Alamos, NM 87544

rhgilkeson@aol.com

cc. mariann2@windstream.net; sally.worthington@state.nm.us; NMED/Charles DeSaillan (charles.desaillan@state.nm.us); nm.usetl@lanl.gov; scott@nukewatch.org; serit@cybermesa.com; sricdon@earthlink.net; contactus@cardnm.org; dave@radfreenm.org; gfettus@nrdc.org; pdomeneci@domenecilaw.com; Ibollings@domenicilaw.comworth; lcummings@doeal.gov; aberlylaw@swcp.com; www.nuclearactive.org; A.Joseph.Alarid@state.nm.us

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5/11/2010

To: John Kieling, New Mexico Environment Department
From: Robert H. Gilkeson, Registered Geologist
PO Box 670
Los Alamos, NM 87544
Date: Tuesday, May 11, 2010
Re: Public Comment: Suggested Changes to **Section 1.8 DEFINITIONS** in the February 2, 2010 New Mexico Environment Department Hazardous Waste Permit (DRAFT) for Los Alamos National Laboratory

- The February 2, 2010 New Mexico Environment Department (NMED) Hazardous Waste Permit (DRAFT) for Los Alamos National Laboratory currently contains definitions that are:

- 1). Incomplete, and/or
 - 2). Incorrect for compliance with the Resource and Conservation Recovery Act (RCRA).
- There are also
- 3). Additional definitions that should be included in the Draft Permit.

- Definitions to add or modify in the DRAFT Permit Section 1.8:
- **Add to the DRAFT Permit the definition in 40 CFR §264.90(a)(2) for “Regulated Unit”**

Regulated Unit. A surface impoundment, waste pile, and land treatment unit or landfill that receives hazardous waste after July 26, 1982 (hereinafter referred to as a “regulated unit”) must comply with the requirements of §§264.91 through 264.100 in lieu of §264.101 for purposes of detecting, characterizing and responding to releases to the uppermost aquifer. The financial responsibility requirements of §264.101 apply to regulated units.

- **Modify the definition in the Draft Permit for “Permitted Unit.”** The definition for **Permitted Unit** in the LANL Draft Permit is incorrect and does not meet the required formal process under RCRA for issuance of a permit. The incorrect definition on page 19 in the LANL Draft Permit is pasted below:

“Permitted Unit means a hazardous waste management unit: 1) that is not an interim status unit; and 2) that is authorized by this Permit and listed in Attachment J (Hazardous Waste Management Units), Table J-1 (Active Portion of the Facility), or Table J-2 (Permitted Units Undergoing Post-Closure Care).”

- **The recommended definition for Permitted Unit is pasted below:**

“Permitted Unit means a hazardous waste management unit: 1) that is not an interim status unit; and 2) that is issued a RCRA permit to manage hazardous waste. A RCRA permit application for each hazardous waste management unit consists of two parts; part A (see 40 CFR §270.13) and part B (see 40 CFR §270.14 and applicable sections in 40 CFR §§270.15 through 270.29).”

In the Draft Permit, Table J-1 “Active Portion of the Facility,” pp. 2-3, list TA 54 “G” as an active landfill (code D80) and as a “regulated unit,” but states “Unit not permitted to

receive hazardous waste.” This indicates that MDA G is illegally carrying on operations without having met Part B requirements to be permitted, without submitting a closure plan and post closure permit application and has disposed of hazardous waste at the unit without a RCRA permit for its active life.

Table J-1 p.5 lists MDAs H and L as regulated units under the D80 code for active landfills and states “Unit not permitted to receive hazardous waste.”

Table J-2 “Permitted Units Undergoing Post-Closure Care,” p.8, lists no units in post-closure care.

Table J-3 “Closed Portion of the Facility not in Post-Closure Care,” p. 9, identifies that TA-16 surface impoundment disposal received waste after July 26, 1982, i.e., it is a “regulated unit.” There is no information to indicate groundwater monitoring requirements are being met for post closure under 40 CFR §§264.91-100. The location of TA-16 must be, but is not identified. Surface impoundments at TA-16 are not identified in the table.

- Many of the definitions to add to the Draft Permit Section 1.8 are from 40 CFR **§260.10 Definitions.**
 - Add from **§260.10** *Active life* of a facility means the period from the initial receipt of hazardous waste at the facility until the Regional Administrator receives certification of final closure.
 - Add from **§260.10** *Active portion* means that portion of a facility where treatment, storage, or disposal operations are being or have been conducted after the effective date of part 261 of this chapter and which is not a closed portion. (See also “closed portion” and “inactive portion”.)
 - Add from **§260.10** *Closed portion* means that portion of a facility which an owner or operator has closed in accordance with the approved facility closure plan and all applicable closure requirements. (See also “active portion” and “inactive portion”.)
 - Add from **§260.10** *Inactive portion* means that portion of a facility which is not operated after the effective date of part 261 of this chapter. (See also “active portion” and “closed portion”.)
- Many of definitions are incomplete and must be supplemented with language from 40 CFR **260.10 Definitions.**

NOTE: Section 1.8 in the DRAFT Permit has an incomplete definition for *Active Portion* that is pasted below. I recommend replacement with the definition pasted above from 40 CFR § 260.10.

- **From page 17 of the Draft Permit**

10 Active Portion means that portion of a facility where treatment, storage, or disposal
11 operations are being or have been conducted after the effective date of 40 CFR Part
12 261

12 and which is not a closed portion as defined in 40 CFR § 260.10.

NOTE: The effective date of 40 CFR Part 261 is May 19, 1980. Disposal operations were conducted at LANL RCRA "regulated units" MDAs G, H and L after May 19, 1980.

- Suggested changes to the definition of **Facility** in the DRAFT Permit.

The definition of **Facility** in the DRAFT Permit is pasted below:

- From page 18 of the Draft Permit

- 1 **Facility** means the Los Alamos National Laboratory site comprised of approximately 40
- 2 square miles, located on the Pajarito Plateau in Los Alamos County in north central New
- 3 Mexico, approximately 60 miles north-northeast of Albuquerque and 25 miles northwest of
- 4 Santa Fe, and owned by the United States Department of Energy.

Add from 40 CFR **§260.10** *Facility* means:

- (1) All contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).
- (2) For the purpose of implementing corrective action under § 264.101, all contiguous property under the control of the owner or operator seeking a permit under subtitle C of RCRA. This definition also applies to facilities implementing corrective action under RCRA Section 3008(h).
- (3) Notwithstanding paragraph (2) of this definition, a remediation waste management site is not a facility that is subject to 40 CFR 264.101, but is subject to corrective action requirements if the site is located within such a facility.

DISCUSSION OF THE IMPORTANCE OF THE DEFINITIONS ABOVE

RCRA regulations require that a hazardous waste management unit must have permits during the active life (including the closure period) of the unit. (40 CFR 270.1 (c)). "Six months after the initial promulgation of the part 261 regulations, treatment, storage, or disposal of hazardous waste by any person who has not applied for or received a RCRA permit is prohibited." (270.1(b)). The effective date of 40 CFR Part 261 is May 19, 1980. Disposal operations were conducted at LANL "regulated units" Material Disposal Areas G, H and L after May 19, 1980.

The definitions for a permitted unit in the RCRA permit application process consists of two parts known as Part A and Part B. Part A gives only general information. 40 CFR 270.1. The Part A application is necessary for a waste site to receive "interim status," pending more formal regulation. Part B of the application is more detailed and includes specific information relating to disposal facilities, environmental impact, and other details necessary for the review of the permit application. 40 CFR 270.14. Under the Post-closure Section 9 of the Draft Permit, the regulated units G, H and L are listed as one of three types of "permitted units." However, the MDAs G, H and L have not met the RCRA criteria for being permitted units.

“The RCRA requires facilities that treat, store or dispose of hazardous waste to obtain a permit from either the United States Environmental Protection Agency or an authorized state.” *Fla. Power & Light Co. v. EPA*, 145 F.3d 1414 at 1417 (D.C. Cir. 1998).

Regulated units (Material Disposal Units, MDAs) G, H and L and other hazardous waste management units that received hazardous waste at LANL after July 26, 1982 need to be accurately described in the Draft Permit. The regulated units G, H and L were not part of the Part B permit after November 8, 1985, thus losing their interim status (40 CFR §270) and were slated to close under 40 CFR §264 Subpart G. (July 6, 2009 LANL Draft Permit Fact Sheet, p.27).

The definition of “closed portion” includes the requirement of an approved facility closure plan. It is important to note that LANL did not obtain an approved closure plan for G, H and L and that no Closure Plan is provided for G, H and L in the Draft Permit. Regulated units G, H and L remain as “active portions” of the LANL Facility because they were not “closed” subject to applicable RCRA regulations.

Regulated units G, H and L were subject to RCRA Part B requirements by 1986 at the latest, but continued without permits to receive hazardous and mixed waste until at least 1990 for Area G; 1986 for liquid hazardous and radioactive wastes at Area L and Area H for radioactive, hazardous, and explosive constituents until 1989. (March 1, 2005 Compliance Order on Consent, p. 77).

Because the regulated units G, H and L lost interim status and did not comply with the Part B permitting requirements, regulated units G, H and L have been and are still operating illegally.

“Corrective Action,” the action taken by the NMED under the 2005 Compliance Order on Consent (Consent Order), is not a substitute for meeting the stricter Part B permitting requirements, either in practice or by law. Instead, “corrective action” under the Consent Order is for removal or remediation of the hazardous wastes at regulated units G, H and L. LANL and NMED cannot now claim that because the Consent Order is being applied for corrective action that the regulated units have become “permitted units” in the Draft Permit. After losing interim status, not obtaining closure plans permit? and post closure permit, regulated units G, H and L cannot now be elevated to the status of permitted units.

LANL had no grace period to continue operating regulated units G, H and L for hazardous waste disposal after November 8, 1985 or to bootstrap absence of regulatory enforcement by NMED for the Closure Plan and Post-Closure permit into permanent immunity from RCRA Part B permitting requirements. The regulated units G, H and L as landfills were required to immediately close. (*United States v. Ecko Housewares, Inc.*, 62 F.3d 806 at 813 (6th Cir. 1995). Simply ceasing operations does not constitute “closure” within the meaning of RCRA and to avoid liability.

At the time LANL ceased *disposal* operations, *storage* and future plans for *treatment* remained – indeed, storage and future plans for treatment continue to this day. Once RCRA’s protections are triggered, ceasing disposal operations does not mean an operator is not still actively engaged in contaminating the site. (*Environmental Defense Fund, Inc. Lamphier*, 714 F.2d 331, 335 (4th Cir. 1983); *see also Fisherman’s Ass’n v. Remington Arms Co.*, 989 F.2d 1305, 1315 (2d Cir. 1993) (although gun club ceased

skeet shooting and therefore ceased disposal of hazardous waste, it continued operating storage facility where contamination left on site).

Thus, regulated units G, H and L continue to be in operation without closure plans.

- **Discussion of definitions in the DRAFT Permit for groundwater issues.**

The Draft Permit contains the following definitions that are the same as definitions in 40 CFR §260.10.

- **From page 17 of the Draft Permit**

13 **Aquifer** means a geologic formation, group of formations, or part of a formation capable

14 of yielding a significant amount of groundwater to wells or springs.

- **From page 18 of the Draft Permit**

20 **Groundwater** means water below the land surface in a zone of saturation.

Definitions that should be added to the Draft Permit include:

- **Add from 40 CFR §260.10 *Uppermost aquifer*** means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

- **Add from 40 CFR §260.10 *Confined aquifer*** means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined ground water.

- **Additional groundwater definitions to add to the Draft Permit – can this be combined with the above?**

Unsaturated zone or **vadose zone** means the zone between the land surface and the water table of the regional groundwater resource.

Perched groundwater zone means water in a limited zone of saturation below land surface a distance generally greater than 100 feet and above the regional zone of saturation. The perched groundwater zones are generally less than 50 feet thick, are not laterally continuous over a great distance and are bounded below by impermeable beds. Multiple perched zones may be present at one location.

Regional groundwater resource means the large groundwater resource deep below the Pajarito Plateau. The water table of the regional groundwater resource generally is in the depth range of 800 to 1000 feet below ground surface. The large regionally extensive saturated zone contains interlayered geologic formations that are highly productive aquifers and geologic formations that have low permeability and are poorly productive of groundwater.

Sole Source Aquifer. The Environmental Protection Agency has designated the Espanola Basin including the 40-square mile property of the Los Alamos National Laboratory as a sole source aquifer. (See Federal Register/Vol. 73, No. 14/Tuesday, January 22, 2008/Notices page 3723.) The aquifer is eligible for sole source designation because it is the principal source of drinking water for the area. "EPA may essentially "veto" financial assistance proposed by Federal agencies for projects it finds may contaminate such a designated aquifer. To date, EPA has designated 75 sole source aquifers." Id.

- Add from **40 CFR §270.2 *Underground source of drinking water (USDW)*** means an aquifer or its portion:
 - (a)(1) Which supplies any public water system; or
 - (2) Which contains a sufficient quantity of ground water to supply a public water system; and
 - (i) Currently supplies drinking water for human consumption; or
 - (ii) Contains fewer than 10,000 mg/l total dissolved solids; and
 - (b) Which is not an exempted aquifer.

There is a fundamental requirement to install monitoring wells in the permeable geological formations that are accordingly the pathway for contaminated groundwater away from the disposal sites, including the regulated units. Unfortunately, many of the LANL monitoring wells are installed in poorly productive geologic formations instead of the permeable formations that are important to monitor.