

Kieling, John, NMENV

From: Don Hancock [sricdon@earthlink.net]
Sent: Friday, September 04, 2009 3:04 PM
To: Kieling, John, NMENV
Cc: Fettus, Geoffrey
Subject: LANL Revised Draft Permit Comments

Attachments: LANL Revised Draft Permit Comments 090409.pdf



LANL Revised Draft
Permit Comm...

John,

Attached are the SRIC/NRDC comments on the Revised Draft Permit and our request for hearing.

Thanks very much for your consideration.

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September 4, 2009

John E. Kieling, Program Manager
Hazardous Waste Bureau – New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

RE: Public Notice 09-02, Revised Draft Hazardous Waste Permit for Los Alamos
National Laboratory (LANL)

Dear Mr. Kieling:

The following are comments of the Southwest Research and Information Center (SRIC) and the Natural Resources Defense Council (NRDC) on the Revised Draft Permit. SRIC is a nonprofit public interest and technical assistance organization based in Albuquerque, New Mexico, which has been interested in issues of nuclear waste and weapons for more than 30 years. NRDC is a national nonprofit organization with more than 1 million members and online activists, including thousands in New Mexico, with a mission to safeguard the earth: its people, its plants and animals, and the natural system on which all life depends.

SRIC and NRDC are interested in LANL because it is a key facility in the Department of Energy (DOE) nuclear weapons complex, it generates and stores extremely large amounts of hazardous and radioactive wastes, and its associated cleanup and long-term management of those wastes will set a precedent for other sites across the country. Those hazardous and radioactive wastes pose significant threats to public health and the environment, and a stringent permit is essential to the safe operation of LANL and the protection of the public and the environment. Moreover, DOE plans for the future nuclear weapons complex provide for new and expanded LANL missions, including plutonium pit production. It is essential that the LANL permit have adequate safeguards for, and limitations on, the types and amounts of wastes that are generated and stored and that disposal units be prohibited.

Further, a new permit is necessary, since the original LANL permit, issued on November 8, 1989 and administratively extended, is more than 18 years old and has many deficiencies. Updating a document that is nearly two decades old is crucially important if our hazardous waste laws are to have any meaningful impact on the plans for LANL's future.

SRIC and NRDC appreciate the efforts that NMED, the permittees, and public parties in more than 40 days of negotiations in 2008 and 2009 that resulted in the Stipulation on Permit

Language of June 26, 2009. The negotiations have resulted in a substantially improved Revised Draft Permit that is more protective of public health and the environment than the draft permit released on August 27, 2007.

However, some objections persist. Exhibit 6 of that Stipulation contains the remaining objections that SRIC and NRDC have to the Revised Draft Permit, which address four major issues.

1. Venting of stored waste containers.

SRIC and NRDC objected to the last sentence of section 2.8.1, which states:

The Permittees shall assume that all containers that hold mixed transuranic wastes and that are not vented contain hydrogen gas and that the associated wastes are considered ignitable.

SRIC and NRDC are concerned that provision limited venting to transuranic waste containers, while other mixed waste containers also are being vented to reduce the likelihood of explosions and deflagrations that could endanger public health and the environment.

Subsequent to June 26, 2009, additional negotiations occurred, which included exchange of additional information about management of waste containers at LANL. As a result, SRIC and NRDC are aware that there are a limited number of waste containers with tritium, which are not vented to prevent tritium releases into the environment. In addition, some mixed waste containers are not vented because they are not transuranic waste and are shipped offsite to disposal facilities that do not allow vented containers. Additional information about container management is being submitted for the record by the permittees. Therefore, SRIC and NRDC agree to support a revised last sentence of section 2.8.1, which states:

The Permittees shall assume that all drums with volume capacities between 55 and 110 gallons that hold mixed transuranic wastes and that are not vented and standard waste boxes that hold mixed transuranic wastes and that are not vented contain hydrogen gas and that the associated wastes are subject to the conditions of this Section 2.8.1.

2. Risk level for human health and excess cancer.

SRIC and NRDC object to various sections (9.2.2.1, 11.4, 11.4.1.1, 11.4.2.1, 11.4.2.2, and 11.12.5.9) of the Revised Draft Permit which set a risk level of 10^{-5} . Scientific and health data clearly show that a risk level of 10^{-6} is more protective of public health and is a reasonable and achievable risk level. Given the multiple carcinogens that are used at LANL, a risk level of 10^{-6} should be included throughout the permit.

There is substantial support for this risk level in agency practice. For example, in both cancer and non-cancer assessments, the U.S. Environmental Protection Agency (EPA) has defined 1 in 1,000,000 excess risk as a *de minimis* risk level (Caldwell et al. 1998; Clean Air Act Amendments 1990; Fiori and Meyerhoff 2002; U.S. EPA 1991; Castorina and Woodruff 2003).¹

¹ See, Caldwell J, Woodruff T, Morello-Frosch R, Axelrad D. 1998. *Application of hazard identification information for pollutants modeled in EPA's Cumulative Exposure Project*, Toxicol Ind Health 14(3):429-454.

For non-cancer risks such as birth defects, respiratory disease, and organ toxicity, EPA presumes that there is a threshold below which there is a negligible risk of adverse health effects from a lifetime of environmental exposure. The risk estimate is called the oral reference doses (RfDs) and inhalation reference concentrations (RfCs) (U.S. EPA. 1999. Integrated Risk Information Service (IRIS) Glossary of IRIS Terms. Available: <http://www.epa.gov/iris/gloss8.htm>).

For cancer assessments, it is generally accepted that there is no known “safe” level, or threshold level of exposure to the vast majority of cancer-causing agents. That is, the only “safe” exposure is no exposure. The approach the EPA uses to quantify the risk associated with a given level of exposure is to develop a dose-response curve, where the default assumption is that the slope of the curve is linear unless substantial data can demonstrate otherwise.

Unfortunately, we also note for the record that EPA’s standard assessment approach often underestimates risk to children and other susceptible populations. Children’s health and risks associated with in utero, perinatal, or childhood exposures have been identified as critical public health issues. Simply adjusting for differences in dose between children and adults based largely on body weight or size is not adequate for protecting children from environmental cancer risks. Exposures to hazardous agents during early life stages may lead to long-term and even permanent damage, such as possibly increasing risks for later developing cancers. It is for these reasons that EPA issued its *Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens*, which outlines the specific susceptibilities and preferable approaches for preventing exposure to carcinogens during early life (U.S. EPA. *Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens*, U.S. Environmental Protection Agency, Washington, DC, EPA/630/R-03/003F, 2005).

3. Closure plans.

The Revised Draft Permit includes 26 closure plans in Attachment G. The plans were not part of the negotiations as many of the draft plans became available only near the time that the Stipulation was signed. Thus, no party agreed to the draft closure plans.

SRIC and NRDC emphasize the importance of adequate closure plans to fulfill the requirements of the Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Act. As the courts long ago ruled:

While invariably described as a “cradle-to-grave” system, it [RCRA] in fact reaches (as we shall see) well beyond the grave. *American Iron & Steel Institute v. EPA*, 886 F.2d 390, 393 (D.C.Cir. 1989).

Castorina R, Woodruff TJ., *Assessment of potential risk levels associated with U.S. Environmental Protection Agency reference values*, Environ Health Perspect. 2003 Aug;111(10):1318-25; Fiori JM, Meyerhoff RD. 2002. *Extending the threshold of regulation concept: de minimis limits for carcinogens and mutagens*. Regul Toxicol Pharmacol 35(2 pt 1):209–216.

Closure should ensure that the “grave or beyond the grave” conditions prevent future public health and environmental impacts from the hazardous and mixed wastes that have been treated and stored at LANL. The closure plans should provide for that result.

SRIC and NRDC agree that the 26 units must be “clean closed.” However, the draft closure plans are deficient in three major ways.

A. Each of the closure plans has a table regarding Potential Waste Materials, Waste Types, and Disposal Options that allows low-level radioactive solid waste to be disposed at “TA-54 Area G or off-site radioactive waste disposal.” SRIC and NRDC strongly object to allowing future waste disposal at TA-54, Area G. A long-standing concern of the public and the neighboring tribes are the multiple environmental and public health hazards posed by Area G. SRIC and NRDC support cleanup of Area G and do not support allowing additional waste disposal in Area G. Nine of the closure plans are for “clean closure” of units in TA-54 Area G, so it is contrary to adequate closure requirements to also allow for additional waste disposal in Area G. Each of the closure plans should be revised so that no waste disposal is allowed in Area G.

B. Each of the closure plans have a provision that:

The Permittees shall take precautions to not remove or disturb the soil or tuff that overlies the regulated unit (covered under the March 1, 2005 Compliance Order on Consent (Order) (*see* Permit Section 9.3)) beneath the permitted unit. The option of removing small areas of asphalt at sampling locations where contamination is suspected (*i.e.*, spill or staining sites) to allow sampling without disturbing the surrounding area prior to the general removal of the pad will be assessed at the time of the assessment.

SRIC and NRDC object to that provision because it could prevent necessary remediation of some sites where contamination has spread below the structure or pad and into the soil or tuff. Such a provision also could prevent meeting the Clean Closure Performance Standard of Section 9.2.1:

To achieve clean closure, the Permittees must:

1. Remove all waste residues and hazardous constituents; and
2. Ensure contaminated media do not contain concentrations of hazardous constituents greater than the clean-up levels established in accordance with Permit Sections 11.4 and 11.5. For soils the cleanup levels shall be established based on residential use. The Permittees must also demonstrate that there is no potential to contaminate groundwater.

The provision that could limit remediation below the surface should be deleted from each closure plan.

C. Each closure plan contains a performance standard to control hazardous waste residues, hazardous constituents, and, as applicable, contaminated media such that they do not exceed a total excess cancer risk of 10^{-5} for carcinogenic substances. SRIC and NRDC object to the 10^{-5} and instead support a 10^{-6} standard, as previously described in #2 above.

4. Cost Estimates for financial assurance.

SRIC and NRDC support financial assurance requirements of the Revised Draft Permit. Permittee Los Alamos National Security, LLC (LANS), co-operator of LANL, meets the applicability requirements for financial assurance of 40 CFR §264.140. As a matter of law, the permit must require financial assurance and permittee LANS must meet those requirements.

Additionally, SRIC and NRDC respectfully suggest that the cost estimates for financial assurance provided in Attachment M are likely too low, especially because of the inadequacies regarding performance standards, disposal requirements, and decontamination requirements described in #2 and #3 above. The cost estimates should be revised to reflect the costs of those provisions.

Request for Public Hearing and Negotiations

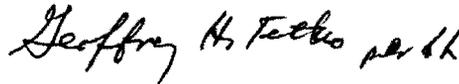
SRIC and NRDC request a public hearing on the Revised Draft Permit. Further, and prior to any notice of public hearing, pursuant to 20.4.1.901. A.4 NMAC, SRIC and NRDC request that NMED, the Permittees, and other parties conduct negotiations to attempt to resolve issues related to the Revised Draft Permit.

Thank you very much for your full consideration of these, and all other, comments. Please do not hesitate to contact us if you have any questions.

Sincerely,



Don Hancock
Nuclear Waste Program Director



Geoffrey H. Fettus
Senior Project Attorney