

LANL Permit

Kieling, John, NMENV

From: Joni Arends [jarends@nuclearactive.org]
Sent: Tuesday, October 09, 2007 4:50 PM
To: Kieling, John, NMENV
Cc: Rhgilkeson@aol.com
Subject: Comments for Public Notice 07-09

Attachments: NMED CO GW 10-9-07.doc



NMED CO GW
0-9-07.doc (54 KB).

John,

Please find attached the comments of CCNS and Robert H. Gilkeson, Registered Geologist, about the Public Notice 07-09 for the permit modification request for changes to LANL groundwater notification requirements.

Please confirm that you have received our comments. Thank you.

Joni

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October 9, 2007

By email to: john.kieling@state.nm.us

John E. Kieling, Program Manager
NMED - Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Re: Public Notice No. 07-09, dated August 8, 2007
Public Comments about the Proposed Modification to the March 1, 2005
Order on Consent for Los Alamos National Laboratory
EPA ID No. NM0890010515

Dear Mr. Kieling:

Concerned Citizens for Nuclear Safety (CCNS) and Robert H. Gilkeson, Registered Geologist, provide the following comments about the proposed modification to the March 1, 2005 Order on Consent for Los Alamos National Laboratory (LANL) pursuant to a Settlement Agreement and Stipulated Final Order filed on June 14, 2007. The proposed modification concerns the New Mexico Environment Department (NMED) allegations that the Department of Energy (DOE) and Los Alamos National Security, LLC (LANS), the Permittees, violated the Hazardous Waste Act Permit and Consent Order by not notifying NMED of significant increases in chromium levels measured in groundwater, all above groundwater protection standards. Further, DOE and LANS did not meet the requirements to report the release of hazardous constituents into the environment from solid waste management units (SWMUs).

To begin, CCNS is pleased that NMED took action to enforce under both the Permit and Consent Order. However, we are concerned that:

1. had LANL reported the chromium in January 2004 to NMED as required, at the time the Consent Order was being negotiated, CCNS believes that the Consent Order would have been more protective of groundwater;
2. the fines and penalties were reduced from well over \$900,000 to \$251,870;
3. including funding for the "RACER" electronic database project as part of the settlement was a mistake. There are many questions about the reliability of the LANL groundwater data and including that data in a public database to calculate risk may allow someone who is at risk to calculate that they are not at risk from LANL

radioactive, hazardous and toxic contaminants. In order to correct that error, we strongly urge NMED to require that the RACER electronic database include the disclaimer that the LANL data may be incorrect, questionable and subject to error.

4. almost four years after LANL first discovered the elevated chromium in the regional aquifer, we still do not know the nature and extent and direction of the plume. LANL's computer modeling demonstrates that once a contaminant source reaches the water table below Mortandad Canyon, that the direction of the plume is to the Buckman Wellfield, where the City of Santa Fe pumps over 40% of its drinking water. Figure 4-33, *Hydrogeologic Synthesis Report, LA-14263-MS*.

Given the fact that plutonium-238 was reported in the Buckman Well No. 1 in the City of Santa Fe Water Division 2006 Water Quality Report, as required by the Environmental Protection Agency, our constituency is questioning the safety of their drinking water. More needs to be done to protect our precious water resources.

5. the National Academy of Sciences (NAS) stated that "many if not all of the wells drilled into the regional aquifer under the Hydrogeologic Workplan appear to be compromised in their ability to produce water samples that are representative of ambient groundwater for the purposes of monitoring." *Plans and Practices for Groundwater Protection at the LANL, Final Report, p. 49*.

Granted that the regional wells, R-35 a and b, were drilled with only air rotary casing advance in the regional aquifer, CCNS is adamant that all future wells drilled into the perched zones above the regional aquifer and the regional aquifer must be drilled using air rotary, casing advance drilling method with only air and limited use of water as drilling fluids.

Further, at the June 8, 2007 release of the NAS report, Committee Chair Larry Lake basically stated that the only cleanup decisions that can be made, based on the current understanding of groundwater beneath LANL, is excavation of the wastes.

We make the following comments about the permit modification request:

1. The notification requirements should consistently apply to all contaminated media at LANL which is regulated by the Consent Order and Permit, be it water, soils or sediments. If the notification requirements for all contaminated media cannot be included in the permit modification, then it must be incorporated into the draft LANL HWA/RCRA permit that is currently out for public comment.
2. At the August 27, 2007 public information meeting, the participants discussed the need to duplicate the public notification requirements that are found in the HWA permit for the Waste Isolation Pilot Plant (WIPP), another DOE site in New Mexico, for

the Permits and Consent Orders for LANL and Sandia National Laboratories. Through the notification process, the public is kept informed about developments in the permitting process, and in the case of the Consent Order process, the public is kept informed about the correspondence between the Regulator and the Permittees. EPA also provides an electronic public notification process regarding WIPP submittals.

The public notification requirements mandate that the Permittees provide an electronic public notification system for the release of documents that are required by the Permit (and would include the Consent Order for LANL and SNL) to those who sign up. The HWA permits and Consent Orders for both LANL and SNL must include the same electronic public notification requirements in them as for the HWA permit for WIPP. The public notification requirements must include notification when contaminant levels have been exceeded, such as in this case.

The notification must also include the annual general facility information updates, periodic monitoring reports, investigation reports, annual environmental surveillance reports, special studies reports and groundwater discharge monitoring reports. The public notification requirements must include notification of decisions made by NMED, either approval, approval with modification, or denial of the submittals by the Permittees.

As an additional method to provide public participation and to improve the quality of any permit modification requests (PMRs), before any PMR is submitted to NMED, the Permittees provide paper and electronic copies of the draft PMR to those who request it prior to a pre-submittal meeting that the Permittees host. The pre-submittal documents are sent and posted on the WIPP website in enough time to allow the public to review them prior to the meeting. At the meeting, the proposed PMR is reviewed by the participants. The WIPP Permittees take the public comments seriously and make the appropriate changes to the draft PMR.

The Permittees then submit the revised PMR to NMED and post it on the WIPP website. Another paper and electronic copy of the PMR is sent to those who have requested it for their use in providing public comments to NMED.

3. Section IV.A.3.g. With regard to the Permittee's review of the analytical data as required in the proposed Section IV.A.3.g, the Permittees must be required to use the most sensitive analytical methods first. In several cases, the Permittees have not used the most sensitive analytical methods, thus reporting "non-detects" for groundwater contaminants. NMED must use its enforcement powers to ensure that the Permittees are using the most sensitive analytical methods.

For example, the Permittees report that a deep perched zone below Mortandad Canyon is contaminated with the very mobile contaminant 1,4-dioxane but that the

contamination is "not detected" in the regional aquifer. The analytical method used to investigate contamination in the regional aquifer has a limit of detection for 1,4-dioxane of 50 parts per billion (ppb), whereas there are analytical methods with a limit of detection of lower than 5 ppb for this contaminant. Early detection of contamination requires the most sensitive analytical methods, and this is not the practice at LANL.

4. The Permittees must be required to report to NMED in writing within seven business days if the contaminant concentration exceeds the federal maximum contaminant level, not after the fifteenth of the month. 40 CFR §264.98 (g). The permit modification must be changed to reflect the seven business day requirement.

5. Section IV.A.3.g.2. What is the current process for determining background levels in springs or screened interval of a well? How is the public notified about the availability of the *Groundwater Background Investigation Report*?

6. Section IV.A.3.g.5. Permittees must be required to report any detections "of a contaminant that is a metal or other inorganic compound in a spring or screened interval of a well at a concentration that exceeds two times the background level." We cannot wait for the contaminant to be detected "for the third consecutive sampling of the spring or screened interval." We must know the first time it is detected at two times the background level.

7. Section IV.A.3.g.6. Again, we can't wait for the third consecutive increase of a contaminant being detected "in a spring or screened interval of a well at a concentration that exceeds either one-half the New Mexico water quality standard or one-half the federal maximum contaminant level." The Permittees must report to NMED the first time it is detected so that the regulator is put on the alert that the contaminant is present.

8. Permittees must be required to also report in their written notification the analytical method that was used to detect the contaminant.

9. The trending analysis should begin in April 2004, the date when LANL should have reported the elevated levels of chromium in the regional aquifer. There is a great need to protect groundwater supplies. Allowing the Permittees to begin their trending analysis after June 14, 2007 does not provide adequate protection given that fast moving groundwater contaminants, such as tritium, perchlorate and hexavalent chromium (chrome 6), have been found in the regional aquifer.

Thank you for your careful consideration of our comments. Should you have any questions or comments, please contact us at the phone or email addresses below.

Sincerely,

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