



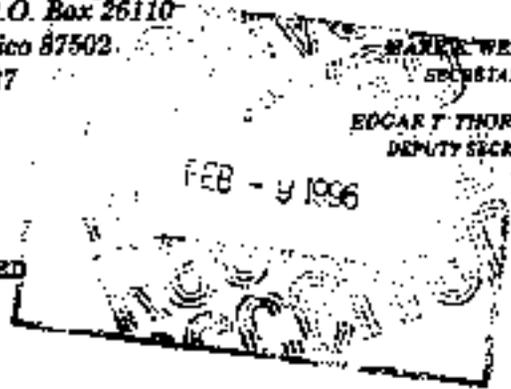
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CERTIFIED MAIL-RETURN RECEIPT REQUESTED  
(P594832825, P594832826)

February 8, 1996

Mr. Tom Baca  
Program Director  
Environmental Management  
Los Alamos National Laboratory  
MS-J591  
Los Alamos, NM 87544

Mr. Dennis Erickson  
Director  
Environment, Safety & Health Div.  
Los Alamos National Laboratory  
MS-K491  
Los Alamos, NM 87544

Re: Protection of Surface Waters of the State at Los Alamos National Laboratory - Solid Waste Management Units (SWMUs)

Dear Messrs. Baca and Erickson:

This letter is to inform you of several problems that have been identified at the Los Alamos National Laboratory (hereafter: "LANL") which can and will affect surface waters of the State of New Mexico. The Environment Department is concerned by LANL's lack of implementation of interim measures necessary to protect surface waters of the state of New Mexico from known contamination at SWMUs within LANL jurisdiction/property. The New Mexico Environment Department - Surface Water Quality Bureau (NMED-SWQB) believes the failure to protect watercourses from receiving refuse emanating from SWMUs directly, by leaching or runoff could be considered a violation of the New Mexico Water Quality Control Commission Regulations adopted under the authority of the New Mexico Water Quality Act. Such discharges may also violate or impair numeric and/or narrative water quality standards set forth by the Water Quality Control Commission (WQCC) in New Mexico Standards for Interstate and Intrastate Streams (WQS) and/or other federal water quality criterion in navigable waters e.g., 40 CFR 129.105(a)(4).

There are well over one thousand SWMUs that have been identified by the Laboratory. The following is an example where, NMED-SWQB believes, LANL should have taken interim measures necessary to prevent the pollutants (i.e., refuse) from being disposed "...in a watercourse or in a location and manner where there is a reasonable probability that the refuse will be moved into a natural watercourse by leaching or otherwise" from a SWMU in Field Unit 1 (FU-1) Operational Unit (OU) 1114, identified as site TA3-056(c). NMED-SWQB further believes the lack of proper pollutant containment at this site also exists at other SWMU's in proximity to watercourses within the LANL's jurisdiction.

This site, which is located proximally and on slopes of a tributary to Sandia Canyon and the watercourse within said canyon, contained surface soils highly contaminated (up to 33,000 parts per million) with



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polychlorinated biphenyl compounds (PCBs). PCBs are listed as "toxic pollutants" by both the federal Clean Water Act and the WQCC Regulations. Further, PCBs "are deemed to be injurious to human health within the meaning of section 402(k) of the [federal Clean Water] Act", (40 CFR 129.5) by EPA.

Records reviewed by NMED indicate LANL sampled the site in 1991 and found elevated PCB soil concentrations to be present. Additional samples (=67) were collected in 1994 again indicating elevated PCB soil contamination while the areal extent of the contamination had increased. An expedited cleanup plan was submitted in June of 1995 yet interim Best Management Practice (BMP) control measures were not dealt with in writing, or implemented on the ground, until a memo from LANL-ESH-20 regarding threatened and endangered species addressed the issue.

LANL's reports clearly document the realization that PCB would be moved to the stream channel, a water of the State. For example the RFI workplan for OU 1114 (June 1993) in section 3.4.3.3 on page 3-8 states in part:

*[c]ontaminants stored in soils or sediment fills on mesa tops may be transported into the canyons by extreme runoff events on the mesa surface ... [c]ontaminated sediments along the canyon floors are likely to be moved toward the Rio Grande during major runoff events ....*

Further, section 3.5.1 on page 3-10 of that report states in part:

*[s]urface runoff and soil infiltration are the most important hydrologic transport pathways in OU 1114.*

Section 3.5.1.1 on page 3-10 of the same report states in part:

*[s]urface water runoff is an effective means of transporting many contaminants, particularly highly soluble contaminants. Runoff can potentially mobilize contaminants or concentrate dispersed surficial contaminants through solution and re-precipitation processes. Surface Water runoff flows from the mesa tops into canyons and ultimately into the Rio Grande or downgradient aquifers (emphasis added).*

Again, on page 5-105 of the 1993 report it states in part:

*[t]he domain to be investigated in conjunction with VCA at SWNU 3-056(c) includes ... surface and near-surface soils along the eroding channel between the existing fence and the point where runoff enters the stream channel below (emphasis added).*

Additionally, the Section 2.4.1.1 of LANL's Expedited Cleanup Plan (June 1995, page 8) states:

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*[i]f the contaminated soil remains in place, several mechanisms are available to transport contaminants from their current location. These mechanisms include: surface water runoff (across contaminated area); erosion of soil and sediments ... the primary mode of migration appears to be via sediment transport in surface water runoff. (emphasis added)*

A relevant issue is the aforementioned determinations by EPA and the WQCC that PCBs are, by statutory definition and regulation, "injurious to health and environment" and "are deemed to be injurious to human health." Section 3.5.2.1 of LANL's document entitled *The Installation Workplan Rev. 3 for the Environmental Restoration Program* dated November 29, 1993 provides discussion on the implementation of interim remedial measures based upon health risks. It is stated in the same section that:

*[i]n determining the need for IRMs based on health risks, at least the following factors will be considered: ... the presence of ... constituents in soil that have potential to migrate to groundwater or surface water....*

In keeping with LANL's stated intent, interim measures should have been more carefully reviewed under this section for this, and other, sites. From the above discussion it is clear that LANL recognized that the refuse was moving "along the eroding channel" to a "point where runoff enters the stream channel." However, not until actual implementation of the corrective action (i.e., soil excavation) in August of 1995 were BMP/control measures implemented. LANL knew in 1991 that the area was contaminated yet waited 4 years to prevent the spread of the pollutant.

The NMED-SWQB is at this time notifying you that we believe effective interim BMPs need to be immediately designed, implemented and monitored for effectiveness at all sites throughout the Laboratory from which pollutants could reasonably be expected to move into watercourses.

The New Mexico Environment Department is seeking a commitment for voluntary compliance from LANL, therefore, we are requesting that within 30 working days of receipt of this letter that LANL:

1) provide NMED-SWQB topographical maps at a scale of 1:12,000 for each watershed indicating all Potential Release Sites (PRS); Solid Waste Management Units (SWMUs); Voluntary Corrective Action (VCA) sites; and Expedited Cleanup (EC) sites which are located in or near a natural watercourses where there is a reasonable probability that refuse [including but not limited to previously defined Constituents of Concern (COCs)] will be moved into a natural watercourse by leaching or otherwise. In addition, the Laboratory should provide a supplement which tabulates all contaminants and their maximum concentration found at each site indicated on the maps. Note the information requested is the same as that which was previously requested by the Oversight Bureau of this Department by letter dated October 6, 1995.

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2) provide a Laboratory wide prioritization and implementation plan which incorporates (minimally) the proximity of each site to a watercourse, the areal extent of contamination, and the likelihood of contaminant mobilization and transport to a watercourse.

3) that the Laboratory provide a written commitment that, based on the above prioritization, it will design and implement interim Best Management Practices (BMPs) as necessary to prevent the spread of these contaminants until final remediation of the site is accomplished. The Laboratory should further commit that it will monitor the BMPs to insure that they are effective in preventing the spread of the contaminants.

If you have any questions, please contact Glenn Saums of my staff at (505) 827-2827.

Sincerely,



Jim Piatt, Ph.D.  
Chief  
Surface Water Quality Bureau

cc:  
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