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Barlow -  
Stu -  
Pls review &  
let me know.  
what you think  
Benito

# Los Alamos National Laboratory

ENVIRONMENTAL RESTORATION

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Date: July 18, 1995  
Refer to: EM/ER:95-313

Mr. Benito J. Garcia  
Hazardous and Radioactive Materials Bureau, Bureau Chief  
New Mexico Environment Department  
525 Camino de los Marquez  
Santa Fe, NM 87502

**SUBJECT: MOVEMENT OF SOIL CONTAINING LEAD BULLETS FROM  
INACTIVE FIRING SITE, SOLID WASTE MANAGEMENT UNIT  
(SWMU) 0-016 TO ACTIVE FIRING SITE AT TECHNICAL AREA  
(TA) 72, SWMU 72-001**

Dear Mr. Garcia:

Thank you for your prompt attention to our request to move soil containing lead bullets from the inactive firing site, SWMU 0-016, to an active firing site at TA-72, SWMU 72-001. The soil containing lead bullets will be used for berms and backstops the same way purchased soil would be used.

The letter you sent indicating your willingness to authorize this use of lead soil at TA-72 requested that five conditions or questions be met. These questions and our response are presented below.

- 1. The soil in question be verified as being free of any other regulated Resource Conservation and Recovery Act (RCRA) constituents.**

Historical data indicate that the site has been used exclusively as a small arms firing range. The potential contaminants associated with small arms firing ranges include lead, copper, and zinc. Copper and zinc concentrations in soils sampled prior to washing were below regional background concentrations of soils of the Pajarito Plateau (DRAFT Natural Background Geochemistry, Longmire 1995)<sup>1</sup> Lead, the containment of concern, is present above regional background and was the reason the soil washing activity was initiated.

<sup>1</sup>DRAFT - Natural Background Geochemistry, Geomorphology, and Pedogenesis of Selected Soil Profiles and Bandelier Tuff, Los Alamos, NM, January 1995, LANL- LA-12913-MS.



Analytical results for RCRA-regulated constituents other than lead are available only from the soil-washing plant recirculation-pond water samples analyzed for dissolved and total metals (see New Mexico State Rule Nos. WQCC 82-1 and WQCC 91-1). All regulated RCRA constituents were below regulatory levels for RCRA Constituents and New Mexico State Surface and Ground-Water Standards. Maximum concentrations of RCRA constituents detected in these samples include silver at 0.02 parts per million (ppm), arsenic at 0.005 ppm, barium at 0.08 ppm, chromium at 0.006 ppm, and selenium at 0.004 ppm. Cadmium and mercury were not detected in these samples.

- 2. Specific conditions under which the active firing range at SWMU 72-001, TA-72, would no longer be considered an active firing site. For example, define normal use criteria for the firing range and a minimum use below which Los Alamos National Laboratory (Laboratory) would close the firing range and proceed to remediate the lead in soil.**

The normal use of the range is weekly, as members of the security force must maintain a minimum level of proficiency with firearms. The Qualification and Special Training records are maintained in an open file, subject to inspection by external auditors. The need for this range is expected to continue as long as the mission of the Laboratory requires a high level of security. Greater than 25 more years of continuing that mission is probable. Downsizing of the Laboratory could result, but that would have no effect on the utilization of this site as the firing range for any Protective Force the Laboratory might employ.

- 3. Certification that the active firing range at SWMU 72-001, TA-72, is being utilized for the intended purpose and not just being used as a convenient storage facility for contaminated soil.**

There will be no stockpiling of lead contaminated soil from SWMU 0-016 at the active firing range. All of the soil moved will be placed in berms. The purpose of the berms are to receive bullets, which will control the disposition of lead. The berms will be receiving bullets directly from ricochets. Berms will also be placed in order to protect personnel from stray bullets. The size of the berms is engineered to meet both bullet containment and personnel safety requirements.

- 4. Yearly status report on SWMU 72-001, TA-72, activities and the status of the lead-soil berms.**

Range logs, training files, and maintenance work orders will be the defensible evidence that the range continues to be used for required training. This information will be maintained by the operating group, available to your office upon request. An annual inspection of the berms will be the basis for reporting the status of the berms. The range manager for the security force will be ordering maintenance work as needed, on the berms based on inspections of the facility. Should this maintenance occur, the ER Project will be notified to ensure that operations do not impact future characterization and remediation.

5. **Specifics of SWMU 72-001, TA-72, berm/backstop material management which assures that no migration of the contaminant will occur. This should include any sampling methodologies for lead and/or total metals at the site to support the proposed deferred corrective action on the lead-soil.**

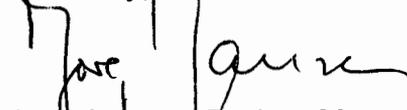
The Operable Unit 1100 Storm Water Pollution Prevention Plan will be amended for SWMU 72-001 prior to the movement of any soil. This plan will address an inventory of exposed materials, description of potential pollutant sources, good housekeeping, preventative maintenance, spill prevention and response, inspection, training, sediment and erosion control, and management of runoff. Under the National Pollutants Discharge Elimination System Storm Water General Permit, an annual compliance inspection is required. A copy of this inspection will be provided to New Mexico Environment Department. A copy of the Guidelines for Preparing a Storm Water Prevention Plan is enclosed.

The ER Project recently completed sampling of the area downstream of TA-72 to support a request to Environmental Protection Agency to defer action at 72-001 until the unit is closed at some point in the future. A total of seven discrete sediment locations were sampled and one duplicate sample was collected downstream of 72-001 in mid-May 1995. Sampling results are not yet available and will be forwarded to you when they are received.

If you have any questions on these responses or would like clarification on the responses, please feel free to contact Court Fesmire at (505) 665-4718 or Dave McInroy at (505) 667-0819.

I look forward to receiving authorization to proceed with the project from your Bureau in the future. Your attention to this matter is highly appreciated.

Sincerely,



Jorg Jansen, Project Manager  
Environmental Restoration

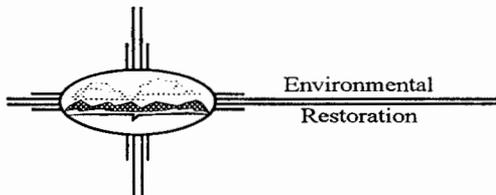
Sincerely,



Theodore J. Taylor, Program Manager  
Los Alamos Area Office

JJ/TT/bp

Enclosure: Guidelines for Preparing a Storm Water Pollution Prevention Plan



Mr. Garcia  
EM/ER:95-313

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