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**ENVIRONMENT DEPARTMENT**

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**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

January 20, 1998

Mr. Theodore Taylor, Project Manager  
Los Alamos Area Office  
Department of Energy  
528 35th Street  
Los Alamos, New Mexico 87544

Mr. John Browne, Director  
Los Alamos National Laboratory  
P. O. Box 1663, MS A100  
Los Alamos, New Mexico 87545

**RE: Approval upon Modification  
16-003(k) & 16-021(c)  
RCRA Facility Investigation Report (EM/ER:96-502) and  
Response to Supplemental Information (EM/ER:97-476)  
Los Alamos National Laboratory  
NM0890010515**

Dear Messrs. Taylor and Browne:

The Hazardous and Radioactive Materials Bureau (HRMB) of the New Mexico Environment Department conditionally approves the 16-003(k) and 16-021(c) RCRA Facility Investigation Report (dated September 23, 1996 and referenced by LA-UR-96-3191) and the Response to the Request for Supplemental Information (referenced by EM/ER:97-476) upon modification as detailed in Attachment A.

Within the above-referenced document, the Department of Energy/Los Alamos National Laboratory (DOE/LANL) references the "LANL 30-Year Plan." HRMB requests that this document be submitted under separate cover within 30 calendar days of the date of this letter.

DOE/LANL must submit to HRMB clean insertable replacement pages incorporating the modifications detailed in Attachment A within thirty (30) calendar days of the date of this letter. Upon receipt, HRMB will review the replacement pages with the intent to finalize the document's approval and shall provide DOE/LANL with this approval



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documentation. However, should DOE/LANL fail to provide the replacement pages within the required time limit, HRMB will deny the aforementioned document.

Should you have any questions regarding this letter, please contact me or Mr. John Kieling, HRMB's LANL Facility Manager, at (505) 827-1558.

Sincerely,



Benito J. Garcia, Chief  
Hazardous and Radioactive Materials Bureau

BJG:kth

cc: T. Baca, LANL EM, MS J591  
J. Canepa, LANL EM/ER, MS M992  
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S. Yanicak, NMED DOE OB, MS J993  
File: HSWA LANL 3/1082/16/16-003(k) & 16-021(c)  
Track: LANL, Doc date, NA, DOE/LANL, NMED HRMB/Garcia, RE, File

**ATTACHMENT A**  
**Approval with Modifications**  
**RCRA Facility Investigation Report**  
**16-003(k) & 16-021(c)**

**MODIFICATIONS TO THE REQUEST FOR SUPPLEMENTAL INFORMATION  
AND DOE/LANL'S RESPONSE:**

8. **LANL's Response:** *The reference to McCann et al, 1996 (1300) is no longer valid. The document referenced here, "Screening Assessment Methodology" was an ER Policy Paper under development at the time the 260 Outfall RFI Report was in preparation. This policy paper was never finalized or released as official ER Policy.*

*The appropriate reference for the ER Screening methodology is "Risk-Based Corrective Action Process (Dorries 1997, 1297)." This reference is cited in the latest version of the RFI Report Framework, Section 3.2.4 Risk Based Screening Assessment, page 13; and is included in recent version of LANL RFI Reports.*

*Attachment H includes the pertinent sections of the document.*

**HRMB Modification:** DOE/LANL shall revise this section to include the fact that the *Risk-Based Corrective Action Process* which is referenced in the *RFI Report Framework* requires approval by the Administrative Authority and has not, to date, received said approval.

- 10b. **LANL's Response:** *44 laboratory samples were collected for PRSs 16-003(k) and 16-021(c). Three laboratory field duplicates were collected. This is a rate of 6.8%. At the time of the 1995 TA-16 field campaign, LANL QA documents suggested taking field duplicates at a rate of 5%. The approved RFI work plan stipulated 1 out of 14 (duplicates were not addressed in the NOD) duplicates at PRS 16-003(k) and 16-021(c), which were considered together in one SAP - a rate of 7.1%...*

**HRMB Comment:** HRMB does not agree with the rate at which field duplicates are obtained. HRMB is in the process of reviewing and providing DOE/LANL comments on its Standard Operating Procedures which govern this QA/QC policy.

17. **LANL's Response:** *...This decision is based on the fact that Building TA-16-260 is an active HE machining facility, that will remain an industrial land use according to the LANL 30-Year Plan...*

**HRMB Modification:** DOE/LANL must properly cite the *LANL 30-Year Plan* and provide the pertinent portions of it as supporting documentation for this RFI Report.

**ADDITIONAL MODIFICATIONS:** DOE/LANL must revise its evaluation of the risk to human health (Sections 5.x.7) based on the following methodology:

The screening assessment should compare the maximum concentration or activity of each contaminant at the site to a screening action level (SAL), which is a risk-based concentration calculated using a conservative target risk (use EPA Region 6 Human Health Media-Specific Screening Levels).

SALs for carcinogens are calculated based on the lower end of 1E-04 to 1E-06 "risk range" to account for multiple carcinogenic contaminants. SALs for non-carcinogens do not account for chemical mixtures. Therefore, if more than one non-carcinogen is expected at the site, then the non-carcinogenic chemical SAL should be divided by 10. Contaminants can be screened out or eliminated from further evaluation as contaminants of potential concern (COPCs) if maximum detected concentrations or activities of contaminants, in a given medium, are below 1E-06 cancer risk SAL or below 0.1 hazard quotient SAL. Remaining contaminants should be carried through a risk assessment.