



BILL RICHARDSON  
GOVERNOR

TA 116  
State of New Mexico  
**ENVIRONMENT DEPARTMENT**

*Hazardous Waste Bureau*  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Telephone (505) 428-2500  
Fax (505) 428-2567  
www.nmenv.state.nm.us



RON CURRY  
SECRETARY

CINDY PADILLA  
DEPUTY SECRETARY

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

June 27, 2007

David Gregory  
Federal Project Director  
Los Alamos Site Office  
Department of Energy  
528 35<sup>th</sup> Street, Mail Stop A316  
Los Alamos, NM 87544

David McInroy  
Remediation Services Deputy Program Director  
Los Alamos National Laboratory  
P.O. Box 1663, Mail Stop M992  
Los Alamos, NM 87545

**RE: NOTICE OF DISAPPROVAL  
CORRECTIVE MEASURES IMPLEMENTATION PLAN FOR  
CONSOLIDATED UNIT 16-021(c)-99  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID #NM0890010515  
HWB-LANL-07-011**

Dear Messrs. Gregory and McInroy:

The New Mexico Environment Department (NMED) is in receipt of the United States Department of Energy and the Los Alamos National Security, LLC (collectively, the "Permittees") document entitled *Corrective Measures Implementation Plan for Consolidated Unit 16-021(c)-99* (Plan), dated May 11, 2007 and referenced by LA-UR-07-2019/EP2007-0185. NMED has reviewed the Plan and hereby issues this notice of disapproval with the following comments.

**Comments:**

1. Section 3.1 Remedial Objectives, pg. 9:



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**Permittees' Statement:** "For RDX and TNT, the soil screening levels (SSLs) at the  $10^{-5}$  risk level are 174 and 342 mg/kg (NMED 2006, 092513), respectively."

**NMED Comment:** As stated in the approved *Corrective Measures Report for SWMU 16-021(c)-99*, the Permittees calculated site-specific screening action levels (SSALs) based on a  $10^{-6}$  acceptable cancer risk threshold for RDX and TNT for the outfall source area as part of the Phase II RFI. The SSALs for RDX and TNT are 36.9 mg/kg and 135.0 mg/kg, respectively. The Permittees proposed to use the SSALs as media cleanup standards (MCS) for the outfall source area during this remedy. More specifically, the Permittees proposed to use the minimum of the two respective values for the site MCS because both constituents are involved in both noncancer and cancer risks at the site. The MCS was proposed in NMED's statement of basis and is part of the approved remedy for the site. The Permittees must use the site cleanup goals that were originally proposed and approved.

2. Section 3.3.1 Concrete Trough, pg. 9:

**NMED Comment:** The Permittees plan to sample underlying tuff beneath the concrete trough if contamination is found in the soil beneath the concrete trough and the extent of that contamination has not been determined. The Permittees must also remove any tuff containing contamination above the site MCS as well.

3. Former Settling Pond Cap Inspection and Maintenance, pg. 12:

**Permittees' Statement:** "The low-permeability cap in the former settling pond will be replaced in the excavated areas after attaining the appropriate soil standards in those locations. The purpose of this cap is to prevent surface water from infiltrating. The cap, which will have a nominal conductivity of  $10^{-7}$  cm/s or less, will, in conjunction with the grouting of the upper surge bed (section 5), prevent surface and groundwater from coming into contact with potentially contaminated tuff."

**NMED Comment:** The approved remedy as described in the 16-021(c) Remedy Selection Fact Sheet includes "extending the existing cap (once the extent of contaminated surge bed is determined) and regrading the surface of the banks to divert storm water away from the drainage." Because the results of the surge bed investigations (as presented in Appendix C to this Plan) suggest that the contaminated surge bed does not extend beyond the settling pond area, the Permittees do not need to extend the cap any further than the boundaries of the existing cap. However, the Permittees must regrade the surface of the banks to prevent storm water from entering the upper drainage. The regrading will act in conjunction with the cap and the grouting to prevent surface water from coming into contact with any contaminated surge bed that may not have been successfully grouted.

4. Section 5.2 Design Basis, pg. 14:

**NMED Comment:** Given the expected hydraulic conductivity of the surge bed (based on tests performed on other surge beds at TA-16), grouting of the surge bed may not be successful unless a low viscosity grout is used (Feasibility of Permeation Grouting for Constructing Subsurface Barriers, Sandia Report, April 1994). The Permittees must ensure that the grouting plan includes the appropriate viscosity grout to address the low hydraulic conductivity of the surge bed. The Permittees must provide a copy of the grouting plan to NMED no less than 30 days prior to the start of grouting activities.

5. Section 6.1 Remedial Objectives, pg. 17:

**NMED Comment:** The Permittees reserved the installation of a storm water filter on SWSC Spring as a contingency, should it begin to flow again. NMED recommends the Permittees sample the spring, if it begins to flow again, to determine if the water would require treatment prior to installing the filter based on comparison to the site-specific MCS.

In addition to the above requirements, the Permittees must provide the results of operations and maintenance activities performed at the surge bed, springs, and permeable reactive barrier as part of the monthly progress reports. A long-term monitoring and maintenance plan must be submitted within 60 days of completion of field activities. The long-term monitoring and maintenance plan must be updated within 60 days after installation of the three other permeable reactive barriers.

The Permittees must address these comments in a revised plan. The revised plan must be submitted to NMED no later than July 29, 2007. All submittals must be in the form of two paper copies and one electronic copy in accordance with section XI.A of the Consent Order. Should you have any questions regarding this letter, please contact Darlene Goering of my staff at (505) 476-6042.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

JPB:dxg

Messrs. Gregory and McInroy  
CMI Plan for 16-021(c)-99  
June 27, 2007  
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cc: D. Goering, NMED HWB  
D. Cobrain, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
L. King, EPA 6PD-N  
G. Rael, DOE LASO, MS A316  
file: Reading and LANL TA-3 '07