



GARY E. JOHNSON  
GOVERNOR

State of New Mexico  
**ENVIRONMENT DEPARTMENT**  
*Hazardous & Radioactive Materials Bureau*  
2044 Galisteo  
P.O. Box 26110  
Santa Fe, New Mexico 87502  
(505) 827-1557  
Fax (505) 827-1544



MARK E. WEIDLER  
SECRETARY

EDGAR T. THORNTON, III  
DEPUTY SECRETARY

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

January 30, 1996



Mr. Larry Kirkman  
DOE/LAAO  
528 35th Street  
Los Alamos, New Mexico 87545

Dear Mr. Kirkman:

New Mexico Environment Department has completed a review of Department of Energy/Los Alamos National Laboratory's request for a RCRA Waste Exclusion of Chromium at Technical Area (TA-55). Review produced the following comments which must be addressed by DOE/LANL prior to NMED granting a RCRA Waste Exclusion.

- **If the waste fails TCLP for Cr, it must not fail TCLP for any other constituent, must not fail the test for any other characteristic, and must not be listed due to the presence of any other constituent.** Although one might assume that DOE/LANL's process meets these criteria, it is not clear from the proposal. First DOE/LANL has provided analytical data for only TCLP metals. DOE/LANL should make a statement to verify that the waste does not fail TCLP for any other constituents (e.g. volatiles), does not fail the test for any other characteristic, and does not contain any listed constituents.
- **The Cr in the waste must be exclusively (or nearly exclusively) trivalent.** DOE/LANL provides rationale why the Cr in the waste will be predominately or entirely trivalent, but DOE/LANL does not provide any analytical data to support this conclusion.
- **The waste is generated from an industrial process which uses trivalent Cr exclusively (or nearly exclusively).** The Cr in this process is being leached from 316 stainless steel. NMED has concluded from review of information provided that, if the intent of the regulation was considered, the waste from this process probably meets this criterion.



4407

TK

● **The process does not generate hexavalent Cr.** Again, DOE/LANL does not provide analytical data to fulfill this criterion. Additionally, DOE/LANL states that, based on the results of a stainless steel corrosion study, one of the unit operations would generate waste in which "less than 20% of the total chromium present was in the hexavalent oxidation state..." This indicates that hexavalent Cr would be generated in this process.

● **The waste is typically and frequently managed in non-oxidizing environments.** Although DOE/LANL states that there are no extreme conditions which "would reoxidize the chromium to the hexavalent state", DOE/LANL should be able to verify (by statement) that the waste will be managed in an environment which will not allow reoxidation of any trivalent Cr to hexavalent Cr.

NMED cannot concur with DOE's position on chromium exclusion based upon information presented by DOE/LANL in supporting documentation. A RCRA exclusion decision for Cr generated during the nitrate-based aqueous process is not appropriate at this time. DOE/LANL needs to supply documentation to satisfy the additional requirements of 20 NMAC 4.1 (Revised November 1, 1995) Subpart II § 261.4(b)(6)(i) at (A), (B), and (C).

Should you or your staff have any question concerning this review contact Ms. Barbara Hoditschek or Mr. Robert S. (Stu) Dinwiddie of my staff at the above address or by phone at (505) 827-1561.

Sincerely,



Benito J. Garcia  
Bureau Chief, HRMB

cc:  
Barbara Hoditschek  
Ron Kern  
Robert S. (Stu) Dinwiddie  
H.L. Jody Plum