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TO: STEPHANIE KRUSE, RCRA PERMITTING PROGRAM
FROM: *zw* LEE WINN, RCRA TECHNICAL COMPLIANCE PROGRAM
DATE: October 25, 1994
RE: REVIEW OF AUGUST 1994 REVISION 1.0 OF INTERIM STATUS CLOSURE PLAN SURFACE IMPOUNDMENTS TA-53-166 NORTHEAST AND TA-53-166 NORTHWEST, TECHNICAL AREA 53

The following technical comments are provided in completion of reviewing Los Alamos National Laboratory's (LANLs) August 1994 Revision 1.0 of the Interim Status Closure Plan (Plan) Surface Impoundments TA-53-166 Northeast and TA-53-166 Northwest, Technical Area 53. Because of the numerous reviews and meetings on this Plan, an effort is made here to minimize any changes in the Plan unless they are of significant technical concern.

ITEM COMMENT

- 1 Page 2-19, first paragraph. "The Tschicoma Formation and the Bandelier Tuff, west of the Pajarito Plateau on the flank of the mountains, contain small, localized bodies of perched water. The Bandelier Tuff contains no perched water beneath the Pajarito Plateau." It is unknown whether there are perched aquifers under this site because the hydrogeology of the area has not been characterized adequately. Additionally, perched aquifers have been found within the Bandelier Tuff in the Guaye and Puye Formations, and the Chino Mesa Basalt within the Pajarito Plateau. Please make changes to reflect this information.
- 2 Page 3-11, third paragraph. "Under both proposed RCRA Subpart S corrective action regulations and the Laboratory Environmental Restoration (ER) Project, constituents at concentrations below action levels do not present a human health risk." LANL must include constituents in the baseline risk assessment if there are constituents detected at concentrations within an order of magnitude below the screening action levels. Please modify the text to reflect this both here and in Appendix K.
- 3 Page 3-19, first paragraph. "For the remaining two pesticides, heptachlor epoxide and toxaphene, detection limits are above action levels so it is not possible to determine whether these constituents are below action

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- levels."** If LANL cannot achieve an estimated quantitation limit below the screening action level, for any analyte, then J-flag concentrations, if detected, must be included in the baseline risk assessment.
- 4 Page 3-53, third paragraph. **"Methanol, acetone, or dilute acid rinses may be used if necessary to achieve effective decontamination."** LANL should not use acetone in decontamination because it has been previously detected in the surface impoundments.
- 5 Page 3-54, first paragraph. **"Decontamination liquids and sludges may also be discharged to the impoundments."** LANL may not discharge decontamination liquids back into the surface impoundment because they must be treated as investigative derived waste and possibly a mixed waste. Therefore, the decontamination liquids should be drummed and analyzed to determine if they are mixed waste or hazardous waste subject to landban restrictions.
- 6 Page 3-57, first paragraph. **"...as long as the EQLs are at or below all action levels except the proposed RCRA Subpart S action level for beryllium in water."** If there is no analytical method to detect a constituent at a level below the Subpart S action level then the constituent should be included in the baseline risk assessment if detected at J-flag concentrations (see comment for item number 3 above).
- 7 Page 4-5, third paragraph. **"If organic constituents were detected before closure, quarterly sampling would resume until no significant increase was detected."** Is there a vadose zone investigation planned if a constituent is detected and confirmed in the pore-gas monitoring system?
- 8 Page 5-3, figure 5-1 - **Process for Determining if Closure Performance Standard is Met, (and associated text on page 5-4) "Is constituent detected in more than 5% of samples?"** All constituents that are detected at concentrations above or within an order of magnitude below the calculated action level should be included in the baseline risk assessment. Removing constituents from risk assessment based on frequency of detection does not consider the possibility that the constituent may be present at other locations which were not on the sampling grid. **"Does constituent have proposed RCRA Subpart S action level?"** RCRA Subpart S action levels are only provided as examples. Each action level must be calculated based on current toxicological data. **"Does constituent have EPA-approved health criteria?"** If not, then the constituent must be included in the baseline risk assessment using a similar constituent which has

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toxicological data. **"Does constituent contribute less than 1% to total risk?"** Because the site is proposed for clean closure, all risk must be considered.

- 9 Page 5-4, second paragraph. **"Only those data meeting QA/QC criteria can be used for decision making."** If data do not meet QA/QC criteria then the location must be resampled.

Appendix I

- 10 Appendix I Tables I-2 through I-6. Some of the action levels in these tables are below estimated quantitation limits and many of them have no estimated quantitation limit. If LANL cannot achieve an estimated quantitation limit below action levels, J-flag concentrations, if detected, for these compounds should be included in the baseline risk assessment.
- 11 Table I-6. LANL should include cyanide on this table and analyze using EPA method 9010.

Appendix K

- 12 Page K-1, third paragraph. **"For those constituents with toxicity criteria approved by the U.S. Environmental Protection Agency (EPA) but with no proposed Subpart S action levels or SAL values, action levels will be calculated using equations in Appendix E to proposed Subpart S (EPA, 1990)."** The proposed action levels in Subpart S are only given as examples, not standards. All action levels should be calculated based on subpart S Appendix E guidance using current toxicological data (see comment for item number 8 above).
- 13 Page K-2, **Figure K-1. Summary of Data Evaluation Process.** See comment for item number 8 above.
- 14 Page K-3, second paragraph. **"Remaining constituents detected below background concentrations in soil, subsoil, and tuff are not considered to be related to TA-53 surface impoundment activities."** LANL should include a site-specific sampling and analysis plan to determine background concentrations for naturally- occurring metals.
- 15 Page K-3, third paragraph. **"Those constituents within each exposure unit that contribute less than 1% of the total cancer risk and overall chronic health hazard for that exposure unit will be eliminated from the quantitative risk assessment (LANL, 1994a; EPA, 1989)."** Because the site is being considered for clean closure, all risk must be

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considered (see comments for item number 8 above).

16 Page K-8, Table K-1. **Default Input Parameters.** Because the site is being considered for clean closure, the most conservative risk assessment assumptions should be utilized. The exposure duration for an adult should be 70 years for all exposure routes.

cc LANL 1994 Red File
RCRA TCP Program File
Lee Winn

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