Department of Energy
Albuquerque Operations
Los Alamos Area Office
Los Alamos, New Mexico 87544

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HAZARDOUS WASTE
PROGRAM

A. Elizabeth Gordon, Ph. D.
Permitting Supervisor
Radioactive and Hazardous Waste Bureau
New Mexico Environment Department
Harold Runnels Bldg., 1190 St. Francis Dr.
P. O. Box 26110
Santa Fe, NM 98502

Dear Dr. Gordon:

Please find enclosed our responses to your comments on the TA-40 Scrap Detonation Site Interim Status Closure Plan (as amended, February 1991). With your acceptance of our responses the initiation of closure activities can proceed this fiscal year.

If you have any questions concerning our responses, please contact Steve Slaten of my staff at 665-5050. Mr. Slaten will be happy to answer any questions or if you think it would be productive, arrange for a meeting between New Mexico Environment Department, Los Alamos National Laboratory, and the Los Alamos Area Office.

Sincerely,

Jerry L. Bellows
Area Manager

Enclosure

cc:
A. J. Tiedman, ADO, LANL, MS-A120
Bob Vocke, HSE-DO, LANL, MS-K481
John Krueger, HSE-DO, LANL, MS-K481
Dave McInroy, HSE-9, LANL, MS-K484
Steve Slaten, ES&H Br., LAAO

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TA-40 SCRAP DETONATION SITE

INTERIM STATUS CLOSURE PLAN

RESPONSE TO NMED COMMENTS OF 4/26/91

1. **NMED Comment:** Section 3.6, Post-Closure Plan; Section 3, Page 3: Post-closure care monitoring requirements may be required if clean closure of the unit can not be demonstrated.

LANL Response: Agreed. The following sentence will be added to the bottom of section 3.6: "However, should the Laboratory be unable to certify that the site has been clean closed, a detailed post-closure care plan will be prepared and submitted to NMED for review and approval prior to implementation."

2. **NMED Comment:** Section 3.7, Final Closure Report; Section 3, Page 4: LANL should include in the report the description and the amount of regulated and non-regulated materials disposed.

LANL Response: Item number 5 under section 3.7 will be amended to promise the requested information. Item 5 will now read, "Disposal location and quantities of all regulated and non-regulated materials."

3. **NMED Comment:** Section 4.1.2.1, Burn Cage; Section 4, Page 5: The surface sample described in the first paragraph needs to be located on Figure 4.2.

LANL Response: Figure 4.2 will be revised accordingly.

4. **NMED Comment:** Section 4.1.3.2, Equipment and Structures; Section 4, Page 8: The closure plan states that the purpose of the sampling is to determine if any contaminants are present on the structures that may require decontamination of the structures prior to disposal. This method needs to be revised to state that the equipment and structures (e.g., the wire cage and several plate steel wiring boxes), which are integral components of the OB/OD unit, are considered hazardous waste and must be disposed of as such, or be decontaminated. The unit components must be considered hazardous until it is proved otherwise. NMED recommends a triple steam cleaning. A laboratory analysis of the rinseate from the third cleaning may

be used to determine the success of the decontamination procedures. LANL has the option of disposing of the unit structures and equipment as hazardous waste without conducting the decontamination, sampling, and analysis activities.

LANL Response: Due to the nature and quantity of materials, and the method of treatment, it is very unlikely that these structures are contaminated with hazardous constituents. Nevertheless, the equipment will be steam cleaned once and the rinseate collected for sampling. The process will be repeated if the analytical results indicate that the equipment actually was contaminated. Section 4.1.3.2. will be modified consistent with this approach.

5. **NMED Comment:** Section 4.1.3.3, Scattered Debris; Section 4, Page 8: The closure plan should clarify the appropriateness of taking a rinseate wash of scattered debris. Is this an EPA-approved method of SW-846 or another approved method? Is a leaching procedure to be employed? How does washing debris with a slow stream of distilled water and sampling and analyzing the catch water correlate to establishing clean closure constituent limits of the debris? The sampling and analytical method for establishing clean closure criteria for the debris needs to be revised or the "rinseate wash" methodology needs to be explained in greater detail in the closure plan.

LANL Response: Scattered debris will be treated in a manner similar to equipment and structures (see LANL response number 4). Any scattered debris will be collected in a bucket and steam cleaned one time. The rinseate will be sampled, and the cleansing will be repeated if the analytical results indicate the presence of hazardous constituents. Section 4.1.3.3. will be modified accordingly.

6. **NMED Comment:** Section 4.2.1, Metals and Cyanide; Section 4, Page 11: The TCLP is a leaching procedure used to determine whether or not a solid waste is also a hazardous waste. the TCLP constituent concentrations above which a waste is considered hazardous can not be used to establish soil clean-up levels. A total digestion method of sample preparation and analysis is needed for comparing total concentrations present in soils to the health-based criteria.

LANL Response: Agreed. The first paragraph of section 4.2.1. will be re-written to emphasize the need for TCLP testing for purposes of determining waste disposition only. The second paragraph proposes the use of total digestion methods and will be modified to stress the use of these methods in determining compliance with clean closure requirements. Furthermore, all of section 4.2 will be modified to specify the use of SW-846 methodology and tables 4.2-4.4 will provide the analytical method by analyte.

7. **NMED Comment:** Section 4.3, Sampling Methods; Section 4, Page 19: The closure plan needs to state that discrete samples (versus composite samples) will be collected and analyzed when comparing media hazardous constituent concentrations with health-based criteria.

LANL Response: Section 4.1., particularly Table 4.1 and the accompanying sampling figures make this clear. However, to clear up any ambiguity, the following statement will be added to the top of the first paragraph of section 4.3., "All samples planned in section 4.1. and summarized in Table 4.1. are discrete samples; no composite sampling will occur during this closure."

8. **NMED Comment:** Section 4.3.5, Sampling Equipment Decontamination; Section 4, Page 20: The closure plan should specify that the equipment decontamination drainage rinse area will be lined with plastic or another type of impermeable lining which prevents infiltration of the rinse water into the surrounding soils.

LANL Response: Section 4.3.5. will be revised to read, "Sampling tools will be decontaminated in an area that has been set aside for the purpose and lined with plastic to prevent any spread of contamination from rinseate spillage. Rinseate will be collected in a drum and stored on-site pending sample analytical results. If sampling results indicate the presence of hazardous constituents, the drum of decontamination rinse water will be sampled to determine whether to dispose of it as hazardous waste. Sampling tools will be washed with a Liquinox or Alconox solution, then tap water and distilled water."

9. **NMED Comment:** Section 4.4, Sample Handling and Documentation; Section 4, Page 30: This section of the closure plan should indicate in the first paragraph that estimated wind speed and direction are pertinent field conditions which are to be recorded on the Hazardous Material Sample Analysis Request.

LANL Response: Wind speed and direction will be added to the alphabetized list of minimum logbook entries in Section 4.4.

10. **NMED Comment:** Section 4.6, Site Decontamination; Section 4, Page 25: All references to the draft 40 CFR 264 Subpart S need to be removed from the closure plan. This is a draft document subject to public comment and further revision. Closure plan decision-points which are based on draft methods may be subject to further verification, if those draft methods are later modified (if and) when subpart S is promulgated. This section of the closure plan should be revised to indicated that,

"Soils will be considered 'contaminated' that contain regulated constituent levels above NMED approved health-based criteria."

LANL Response: This section will be re-written to read, "LANL will prepare a risk assessment, using NMED-approved methodology, for any constituent identified in the field investigation to determine threshold concentrations in soil. Soils will be considered contaminated if hazardous constituent concentrations exceed those that correlate to an acceptable risk range dictated by NMED. Removal of contaminated soil will not occur until NMED has approved of decontamination criteria."

11. NMED Comment: Section 5.1.1, Material Excavation; Section 5, Page 1: The closure plan needs to explain in greater detail the correlation between the depth and aerial extent of material to be excavated and the sample results that triggered that excavation activity. (For example, how are the limits of excavation determined from the sampling results?)

LANL Response: Section 4.8 (which should be labelled Section 4.7) discusses the need for additional sampling to determine excavation limits, should excavation prove necessary. With the foreknowledge that the presence of hazardous constituents above NMED established health-based limits is very unlikely, the closure plan was written more as a reconnaissance sampling plan than as technique for determining excavation limits. However, if a risk assessment indicates that hazardous constituent concentrations are unacceptably high, the closure plan will be supplemented (officially modified for NMED approval) with a sampling plan designed to determine the limits of excavation. The first sentence of Section 4.8 (which will be changed to Section 4.7) will be modified to read, "To clearly define the limits of excavation, additional site investigations will be conducted prior to commencing site decontamination."

12. NMED Comment: Section 5.1.3, Equipment Decontamination; Section 5, Page 1: The excavation equipment should be steam cleaned or a more thorough explanation should be provided for the method of washing and rinsing of equipment. This is needed because no laboratory analysis to demonstrate the success of decontamination is proposed.

LANL Response: This section will be revised to propose steam cleaning instead of detergent washing.

13. NMED Comment: Section 6, Schedule; Section 6, Page 2: The closure schedule includes "site restoration". Please include a brief narrative in the closure plan relating to what these activities are.

LANL Response: Section 5.4, Site Restoration, will be added to the closure plan to address this comment. The section will read, "If excavation is required, site restoration will consist of backfilling and/or regrading to contours consistent with surrounding terrain, and seeding with native species. If no excavation is required, site restoration will be limited to housekeeping measures (e.g., collection of uncontaminated solid waste for disposal)."