

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

DATE: February 14, 1994

IN REPLY REFER TO: EM/ER:94-A051

MAIL STOP: M992

TELEPHONE: (505) 665-2613

Mr. Ted Taylor, Program Manager
Department of Energy
Los Alamos Area Office, MS A316
Los Alamos, NM 87544

Dear Mr. Taylor:

SUBJECT: INTERIM ACTION AT TECHNICAL AREA (TA) 21, OPERABLE UNIT (OU) 1106

The purpose of this letter is to inform you of the interim action planned at TA-21, OU 1106 with respect to Solid Waste Management Unit (SWMU) 21-011(k). This SWMU is part of the outfall system dating back to 1945 which discharged treated and untreated liquid plutonium processing wastes from TA-21 plant operations. The planned interim action is to install temporary fencing because the radionuclide levels and currently uncontrolled nature of this site may present an unacceptable risk to site personnel for inadvertent use of the site. The attached map shows the location of SWMU 21-011(k) in relation to other TA-21 features, gamma contours derived from field surveys, and an outline of the fence location. Additional characterization information on this SWMU is contained in Phase Report 1C, which is scheduled for delivery to Environmental Protection Agency Region 6 on 28 February 1994.

The determination of the fence placement was based on the results of Resource Conservation and Recovery Act Facility Investigation field activities performed in 1992 and 1993 and extensive discussion with Sarah Helmick of the CST Division Operations Unit, which acts as landlord of the area immediately adjacent to SWMU 21-011(k). The details of the assumptions and logic which led to the selection of the 50 microrem per hour dose rate to define the area to be fenced are summarized below:

- The realistic maximum exposure scenario, given current site use, is assumed to be occasional use by Laboratory personnel associated with the DP-west facility.
- Site occupancy of 5 hours/week and 40 weeks/year was considered to be a highly conservative minimal exposure assumption.
- At a dose rate of 50 microrems per hour at the indicated exposure rate, an annual external dose of 10 millirem per year would be obtained, well below the 100 millirem/ year incremental dose limit to occupational workers as specified by Department of Energy Order 5480.11.



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TA-21

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Based on the listed assumptions, we feel it is reasonable for the fence to enclose the area where dose rates exceed 50 microrem per hour, as indicated on the map.

Fence installation is expected to be completed within the next 1-2 weeks by a Johnson Controls work team. Total cost is expected to be approximately \$25K. The fence will consist of standard 6 ft chain link topped with 2 strands of barbed wire affixed to portable fencing stakes.

In the future, soil removal from SWMU 21-011(k) probably will be necessary. However, this action is not practical at the present time because (1) radioactive waste disposal at TA-54 currently is restricted. (2) Phase II sampling needs to be conducted to better define the remediation area and volume. A Phase II sampling plan will be submitted in a future TA-21 phase report. (3) Cleanup levels have not been set for this site. These levels will be negotiated at a later date with EPA, presumably after characterization of nearby SWMUs has been carried out and baseline risk assessment has been conducted.

Temporary fencing of outfall SWMU 21-024(i) also is under consideration for similar reasons. In this case, the affected area is much smaller and costs of fence installation are expected to be less than \$15K. You will be informed of this interim action also, when it has been determined to be necessary.

If you approve, please send your approval of the interim action for SWMU 21-011(k) as soon as possible. Thank you.

Sincerely,



Tracy Glatzmaier
Programmatic Project Leader

TG/vvm

Enclosure: TA-21 Map Showing Fence Location Around SWMU 21-011(k)

Cy: (w/o enclosure)
T. Baca, EM, MS J591
J. Shipley, EM, MS J591
R. Vocke, EM, MS M992
P. Aamodt, EM/ER, MS M992
D. McInroy, EM/ER, MS M992
G. Eller, CST-10, MS J534
RPF, MS M707
CRM-4, MS A150

memorandum

**Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87544**

DATE:

REPLY TO

ATTN OF: LESH:CGF:OU1106

SUBJECT: OU 1106 Interim Measures at SWMU 21-011(k)

TO: D. J. McInroy, Acting Program Manager, UC-LANL, EM/ER, MS M992

Recently Tracy Glatzmaier, the Programmatic Project Leader for OU 1106, sent a letter detailing the proposed interim measures to be taken at SWMU 21-011(k) which was an outfall for the discharge of liquid plutonium waste from TA-21. Ms. Glatzmaier proposes to fence the area around the outfall until further remedial action is taken. The site is currently uncontrolled in an area which is used recreationally. The fence will minimize any exposure to gamma radiation to these recreational users of the site.

DOE/LAAO agrees that the fence is necessary and authorizes its installation as detailed in the February 14, 1994, letter from Ms. Glatzmaier. As was discussed after the February 16, 1994, conference call with the EPA, Mr. Fesmire, of my staff, will draft a letter to the EPA regarding the interim action. Ms. Glatzmaier or Mr. Eller may be required to provide additional information for that transmittal to the EPA. If you have any questions about this matter, please call me or Court Fesmire at 5-4718.

**ORIGINAL SIGNED BY
TED TAYLOR**

Theodore J. Taylor
Program Manager
Environmental Restoration Program

CC:

T. Taylor, LAAO, ES&H, MS A316
C. Fesmire, LAAO, ES&H, MS A316
K. Schenck, Scientech/LAAO, ES&H, MS A316
K. Bitner, AL-ERPO
R. Harris, EM-452, HQ
T. Baca, UC-LANL, ERWM, MS J591
RPF, MS M707

EPA ID # MM0890010515

FACILITY NAME Los Alamos Scientific

MAP/OTHER

*(See Non-Scanned Objects for Location
and Description)*

SWMU 21-011 (K) Outfall

Seep area 21

1148

SWMU 21-011(K) - Outfall

Tech Area 21

21-1290

21-1149

