TA-21

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

MAR 1994
RECEIVED
HAZARDOUS WASTE
PROGRAM

Mr. William Honker, Chief
RCRA Permits Branch
Hazardous Waste Management Division
U.S. EPA, Region 6
1445 Ross Ave., Suite 1200
Dallas, Texas 75202-2733

Dear Mr. Honker:

Module VIII of the Hazardous Waste Permit issued by the EPA jointly to the University of California-Los Alamos National Laboratory (UC-LANL), as the operator, and the United States Department of Energy (DOE), as the owner, requires the permittee to document and report on all interim measures which are undertaken at the facility other than those specified in the permit. This letter is submitted in compliance with that provision of the permit [Task I.D]. This section of the permit requires the permittee to include the objectives of the interim measure, the design, construction, operation and maintenance requirements, the schedules for design, construction and monitoring, and the schedule for progress reports.

The TA-21 plant operations included an outfall [21-011(k)] which in the past discharged treated and untreated liquid plutonium processing wastes into "DP" Canyon. The discharge resulted in areas of elevated gamma radiation around the outfall. The area of elevated radiation was discovered recently during the RFI process. This area is currently uncontrolled and potentially used recreationally or unkowningly by visitors and county inhabitants. Additional information regarding the site is contained in the OU1106 Phase Report 1C due to be submitted to the EPA on February 28, 1994. It is anticipated that a soil removal action will be required at the site in the future, however, until that action occurs, both DOE and the University of California feel it is prudent to restrict access to the area around the former outfall. Consequently, DOE/LAAO has informed UC-LANL that construction of a temporary fence is authorized [see enclosure 1].

In keeping with the permit requirements, the following information is provided regarding the planned fence at TA-21. Addition information is available in enclosure 2 which includes the UC-LANL proposal for the fence as well as the justification for the limit of the area to be fenced.

Objective of the interim measure:

The objective of the interim measure is to prevent the unknowing exposure by people to the area of elevated radiation until such time as the area of contamination is removed.

Design:

Six foot chain link fence topped with 2 strands of barbed wire affixed to portable fencing stakes to enclose an area of roughly 70,000 square feet. The restricted area ensures that a casual user of the area would not be exposed to a radiation dose in excess of 50 microrem per hour based on the assumptions listed in enclosure 2.

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Construction:
Temporary fencing to be erected by existing onsite support contractor personnel.

Operation and maintenance requirements:
Fence to be periodically inspected for structural integrity during routine operations regarding the ER activities at the site.

Schedules for design:
No design required.

Schedule of construction:
Anticipate fence completion by mid-March 1994.

Schedule for monitoring:
N/A

Schedule for progress reports:
N/A

If you have any questions about this matter, please call Court Fesmire of my staff at (505) 665-4718.

Sincerely,

Joseph Vozella, Chief
Environmental, Safety and Health Branch

enclosures:
(1) Memo-T. Taylor to D. McInroy
(2) Letter-T. Glatzmaier to T. Taylor (w/map)

cc w/enclosures:
Ms. Kathleen Sisneros
New Mexico Environment Department
1190 St. Francis Drive
P.O. Box 26110
Santa Fe, New Mexico 87502
B. Swanton, NMED-AIP, MS M993
T. Taylor, LAAO, ES&H, MS A316
C. Fesmire, LAAO, ES&H, MS A316
K. Schenck, Scientech/LAAO, ES&H, MS A316
K. Boardman, AL-ERPO
R. Harris, EM-452, DOE-HQ
T. Baca, UC-LANL, ERWM, MS J591
D. McInroy, EM/ER, MS M992
RPF [1.4.2.6.1.13.1.4 (1106)], MS M707

United States Government **Department of Energy**

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

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.

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