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Date: April 28, 1995
In Reply Refer To: ~~ESH-18/WQ&H~~:95-0212
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Mr. Ed Kelley, Director
Water and Waste Management Division
New Mexico Environment Department
1190 St. Francis Drive
Santa Fe, New Mexico 87502

SUBJECT: CORRECTIVE ACTION REPORT AND INVESTIGATION OF WASTE LINE AT TA-21, BUILDING 3

Dear Mr. Kelley:

I am in receipt of your letter dated March 17, 1995, regarding the above referenced subject. Although dated March 17th, it was not received by the Laboratory's mail room until March 31, 1995, and it is our understanding that this date serves as the initiation date for the 30 day deadline for submittal of this Corrective Action Report. The following is a summary of the Laboratory's investigation and corrective actions completed to date.

In early October, 1994, Radioactive and Industrial Wastewater Science Group (CST-13) personnel working at the Radioactive Liquid Waste Treatment Facility at Technical Area (TA)-21, Building 257, observed what they believed was a low flow coming from laboratory buildings at TA-21. This concern was reported informally to the TA-21 Building Manager. Upon further investigation, flow data was collected by CST-13 which showed a typical seasonal flow of wastewater with a decrease in the fall when summer personnel were no longer working at the facility. Additionally, a number of CST permanent staff had been relocated from the facility further reducing expected flows. However, the Building Manager felt that a conservative approach was in order and a series of dye tests were initiated in order to determine if leakage from the line existed.

After a number of tests were conducted, it was determined that dye from all buildings at the facility reached the Radioactive Liquid Waste Treatment Facility at TA-21, with the exception of Building 3. Additional dye tests, conducted by an independent engineering firm, confirmed the results of the tests performed by CST-13 and the TA-21 Building Manager.

This information prompted the TA-21 Building Manager to discontinue the use of all connections from Building 3 into the collection system. Two sinks from Building 3 were plumbed into approved waste tanks so that programmatic operations could continue. The waste from these two tanks is being hauled to the Radioactive Liquid Waste Treatment Facility at TA-21.

In November, 1994, CST-13 and the TA-21 Building Manager began inspecting the Radioactive Liquid Waste Collection Lines using a camera system. Because of the numerous bends and the small size of some of the lines, inspection with the camera system was unsuccessful. However, on November 29, 1994, a camera was inserted into the line under Rooms 305 and 307 at Building 3. At that time, a hole was discovered under a sink in Room 307. The sink had been inoperable since October 13, 1994, and no liquid was observed in the line. The line is located inside a concrete trench that runs under the building and no release to the environment is believed to have occurred.

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Tests were continued by trying to access the line leading from Building 3 to the main collection line. Approximately 20 feet into the line, a downward turn was discovered that contained standing water. The standing water turned opaque about 3 feet farther down the pipe and the use of the camera was no longer effective.

Since the discovery of the hole in the pipe beneath Building 3, numerous meetings and investigations have taken place. The conclusion reached is that this building and connecting lines were constructed in the late 1940's and their use should be discontinued. However, the pipe was contained in a concrete trench and there does not appear to have been a release to the environment.

TA-21 facilities are scheduled for Decontamination and Decommissioning (D&D) within the next several years. The D&D work will result in facilities being removed, including Building 3. As part of the D&D process, the waste pipes under the building will be removed. After D&D is accomplished, the Environmental Restoration team will continue characterization and remediation of the site. These activities are listed on the draft RCRA Facility Investigation (RFI) and D&D schedules which have been enclosed for your review.

Since these activities are already underway, the TA-21 Facility Manager and representatives of DOE and the Laboratory have agreed that further attempts to characterize the pipe are not consistent with the Laboratory's safety and ALARA (As Low As Reasonably Achievable) policies regarding exposures to radioactive substances. All sinks in Building 3 have been disconnected from the wastewater line and CST Division is in the process of vacating the building. As soon as CST Division personnel have vacated the building, it will be placed on the excess facility list ready to be turned over to the D&D Program.

The outcome of the Laboratory's investigations concerning Building 3 and subsequent decisions were discussed at a meeting with Mr. Harvey Decker of the NMED Surface Water Bureau on February 27, 1995. Representatives from the NMED Hazardous and Radioactive Materials Bureau and from the NMED Ground Water Protection and Remediation Bureau were also invited to the meeting but were unable to attend. No additional information was requested from the Laboratory by NMED during or after the meeting and Laboratory representatives believed that all NMED concerns regarding these issues were resolved. No Corrective Action Plan was suggested by NMED personnel prior to receipt of your March 17, 1995, letter.

In summary, the two sinks at Building 3 have been disconnected from the Radioactive Liquid Waste Collection System at TA-21 and no potential now exists for any radioactive liquid waste to be discharged to the collection system from Building 3. Plans are now being implemented to vacate this Building and to complete D&D according to the established schedule. Excavation at this site is not advisable prior to D&D operations because of potential risk of exposure to workers.

Please call me at 665-1859 or Alex Puglisi at 667-4882 if you require any additional information on the actions taken to eliminate all discharges from Building 3 and to vacate this facility. Laboratory representatives will also be available to meet with NMED representatives from the Hazardous and Radioactive Materials Bureau and from the Ground Water Protection and Remediation Bureau if further discussion would be helpful.

Sincerely,

Steven R. Rae
Acting Group Leader
Water Quality & Hydrology Group

SR:AP/vc

Enclosures: a/s

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WQ&H File, w/o enc., MS K497
CRM-4, w/o enc., MS A150