

ENVIRONMENTAL STORAGE PROJECT COMMUNICATION RECORD

Date: 08/15/01	Time: 1:00 p.m.	Recorded By: P. Bertino
To: Vickie Maranhville (WB) 8/15/01	From: P. Bertino	Telephone No.: 665-2198

Affiliation: NMED-HWB

Other Parties: Dan Holmquist and John Hopkins (LANL ER), and Woody Woodworth (DOE-AL)

Discussion: This communication record (including all attachments) documents LANL's revised approach for the collection of confirmation samples during the VCA of PRSs 21-024(f) and C-21-015 (LA-UR-99-3407), and the newly identified PRS 21-030. During a recent records search, it was determined that the concrete sump located in former building TA-21-45 had been assigned a new PRS number 21-030 in 1996 (see attached notification letter). Therefore, PRS C-21-015 refers only to the footprint of former Building TA-21-015, consistent with the SWMU Report and PRS 21-030 is identified as the sump and its outlet line.

The confirmation sample analytical suite for PRS 21-024(f) is based on waste characterization results from the septic tank and analytical results from previous investigations at PRS 21-024(f). Sludge samples were collected from the second compartment of the septic tank on August 1, 2001. Analytical data will be provided to NMED-HWB and the confirmation sample analytical suite modified as necessary. The confirmation sample analytical suite for PRSs C-21-015 and 21-030 is based on waste characterization results from the sump and analytical results from previous investigations at PRS 21-024(f). At the request of NMED-HWB and because of the former plutonium processing operations conducted at TA-21 (each of these PRSs), perchlorates will be added to the confirmatory sampling analytical suite for the borehole samples collected beneath the septic tank, the bottom three borehole samples collected beneath the outfall pit, samples collected from a single location beneath the outlet line from the septic tank at PRS 21-024(f), and from the borehole samples collected beneath the sump. The waste characterization results for PRSs 21-024(f) and 21-030 are attached, and results from previous investigations are presented in the 1999 VCA Plan.

PRS 21-024(f): The only proposed change to the confirmation screening and sampling approach for the inlet and outlet lines of both PRSs is to establish more discrete sample intervals to ensure the determination of nature and extent, similar to the approach implemented for the inlet and outlet lines at PRS 21-024(i). At the request of NMED-HWB, two additional outlet sample locations will be added, one approximately one quarter of the way between the septic tank and the outfall pit (40 ft), and one approximately three quarters of the way between the septic tank and the outfall pit (120 ft). The 0- to 12-inch depth interval below the inlet and outlet lines has been changed to 0- to 6-inches and the 12- to 24-inch interval beneath the inlet and outlet lines has been changed to 18- to 24-inches.

The only proposed change to the confirmation sampling beneath the septic tank upon its removal is the installation of a single borehole to a total depth of approximately 30-feet below ground surface (bgs), equivalent to 20-feet below the bottom of the tank to define nature and extent. The 1999 VCA Plan proposed only a single confirmation sample location within the tank excavation with samples collected from two depth intervals, 0- to 12-inches and 12- to 24-inches. Continuous core will be collected from the single confirmation borehole and screened for VOCs with a photoionization detector, and alpha, beta and gamma radiation using hand held instruments. Samples will be collected from the following depth intervals: 0- to 6-inches, 4.5- to 5.0-feet, 9.5- to 10.0-feet and 19.5- to 20.0-feet below the bottom of the tank. To ensure the nature and extent of any residual contamination is defined, a single borehole will be advanced in the center of the outfall pit and continuous core collected to a total depth of 20-feet bgs. The core will be screened in the same manner describe above for the core samples to be collected from beneath the septic tank. Samples will be collected from the following depth intervals: 6- to 12-inches, 4.5- to 5.0-feet, 9.5- to 10.0-feet and 19.5- to 20.0-feet bgs. Sampling of the slope below the outfall will be performed with the assistance of the Canyons Focus Area. Approximately 13 sample locations were determined with input from members of the Canyons Focus Area using the same methodology currently used for characterization of the canyons reaches. The actual number and location of these samples will be based on the geomorphology observed at each proposed sample location. A map with proposed sampling locations will be provided to NMED prior to sample collection.

PRS 21-030: The only proposed change to the confirmation sampling beneath the sump upon its removal is the installation of a single borehole to a total depth of approximately 20-feet below the bottom of the sump to define nature and extent. A second borehole is also proposed approximately 5 feet north of the sump. The 1999 VCA Plan proposed only a single confirmation sample location within the sump excavation with samples collected from two depth intervals, 0- to 12-inches and 12- to 24-inches. Continuous core will be collected from the two confirmation boreholes and screened for VOCs with a photoionization detector, and alpha, beta and gamma radiation using hand held instruments. Samples will be collected from the following depth intervals: 0- to 6-inches, 4.5- to 5.0-feet, 9.5- to 10.0-feet and 19.5- to 20.0-feet from both boreholes. The outlet line from the sump will be sampled as shown in revised Figures 4.2-2 and 5.1-1 from the 1999 VCA Plan (attached). At the request of NMED-HWB, one additional outlet sample location has been added along the north edge of DP road, approximately 85 ft southwest of the sump. Samples will be collected from the 0- to 6-in. and 18- to 24 in. depth intervals similar to the inlet and outlet lines associated with the septic tank.



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PRS C-21-015: is the former location of building TA-21-25 that was used as a safety training building in 1947 and 1948. The building was altered in 1949 and subsequently housed the Laboratory's Industrial Waste Studies group until the building was removed in 1954. Waste streams from the building discharged to the septic system (PRS 21-024(f) and a concrete sump (PRS 21-030). During the VCA, the building footprint will be surveyed and six confirmation samples will be collected from three locations within the building footprint from two depth intervals (0-in. to 6-in. and 18-in. to 24-in.). The analytical suite for these samples will be the same suite used for samples from the sump (PRS 21-030).

Action Items: Deliver communication record for Vickie Maranville to initial and distribute the record. Upon receipt of analytical results from the sludge samples collected from the second compartment of the septic tank at PRS 21-024(f), provide data to NMED-HWB and modify the confirmation sample analytical suite as necessary. Replace revised Figures 4.2-1 and 4.2-2 with new map(s) showing topography of the hillside below the outfall pit and proposed confirmation sample locations, and that show the footprint of former Building TA-21-45 (PRS C-21-015) and associated confirmation sample locations. Thoroughly document all deviations from the approved VCA Plan and implementation of decisions agreed to in this Record of Communication in the VCA completion report. All revised and new figures and maps will be provided in the VCA completion report in addition to the revised descriptions and supporting documentation for PRS C-21-015 and 21-030.

Distribution:

V. Maranville/J. Young, NMED-HWB
J. Hopkins & D. Holmquist, MDAFA
L. Woodworth, DOE-AL
P. Bertino, RCFA/MDAFA
J. Crocker, Washington Group
RPF

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