

LANL
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TA-21
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ERM/Golder Los Alamos Project Team
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Voluntary Corrective Action Plan for TA-21 Sump and Cooling Tower Sites

Sites under Field Unit 1 at TA-21
21-022(j), Sump Pump
C21-027, Cooling Tower

1.0 INTRODUCTION

The following potential release sites (PRSs) at Los Alamos National Laboratory (LANL) have been selected for voluntary corrective action (VCA) because their remedies are obvious and easily implemented. These voluntary corrective actions have been grouped in a single plan because they are similar and located within the same technical area. Tasks in this plan include soil sampling to verify that no contamination remains.

1.1 Field Unit 1, PRS 21-022(j)

The sump pump at PRS 21-022(j) received drainage from an equipment room in the southeast corner of Building TA-21-3. The sump occupied an area 18 in. by 18 in., and the bottom of the sump was 8 ft below ground level. The south portion of the building, including the equipment room, was removed in 1994. The bottom of the sump was left exposed. No information is available from previous investigations to determine whether hazardous or radioactive contamination remains at this site, although it is expected that such contamination was removed during decontamination and decommissioning activities.

1.2 Field Unit 1, Area of Concern C21-027

The area of concern at C21-027 is the site of structure TA-21-143, a cooling tower (chilled water recirculator) that received water from Building TA-21-3, circulated it, and returned it to the building in a closed loop. The cooling tower occupied an area approximately 10 ft by 20 ft. The cooling tower was removed, along with the south portion of Building TA-21-3, in 1994. No information is available from previous investigations to determine whether hazardous or radioactive contamination remains at this site, although it is expected that such contamination was removed during decontamination and decommissioning activities.

2.0 SITE TYPE AND DESCRIPTION

Figure 2.1 is a map of these sites at TA-21 proposed for this voluntary corrective action. These sites and the expected wastes are described in Table 2.1.



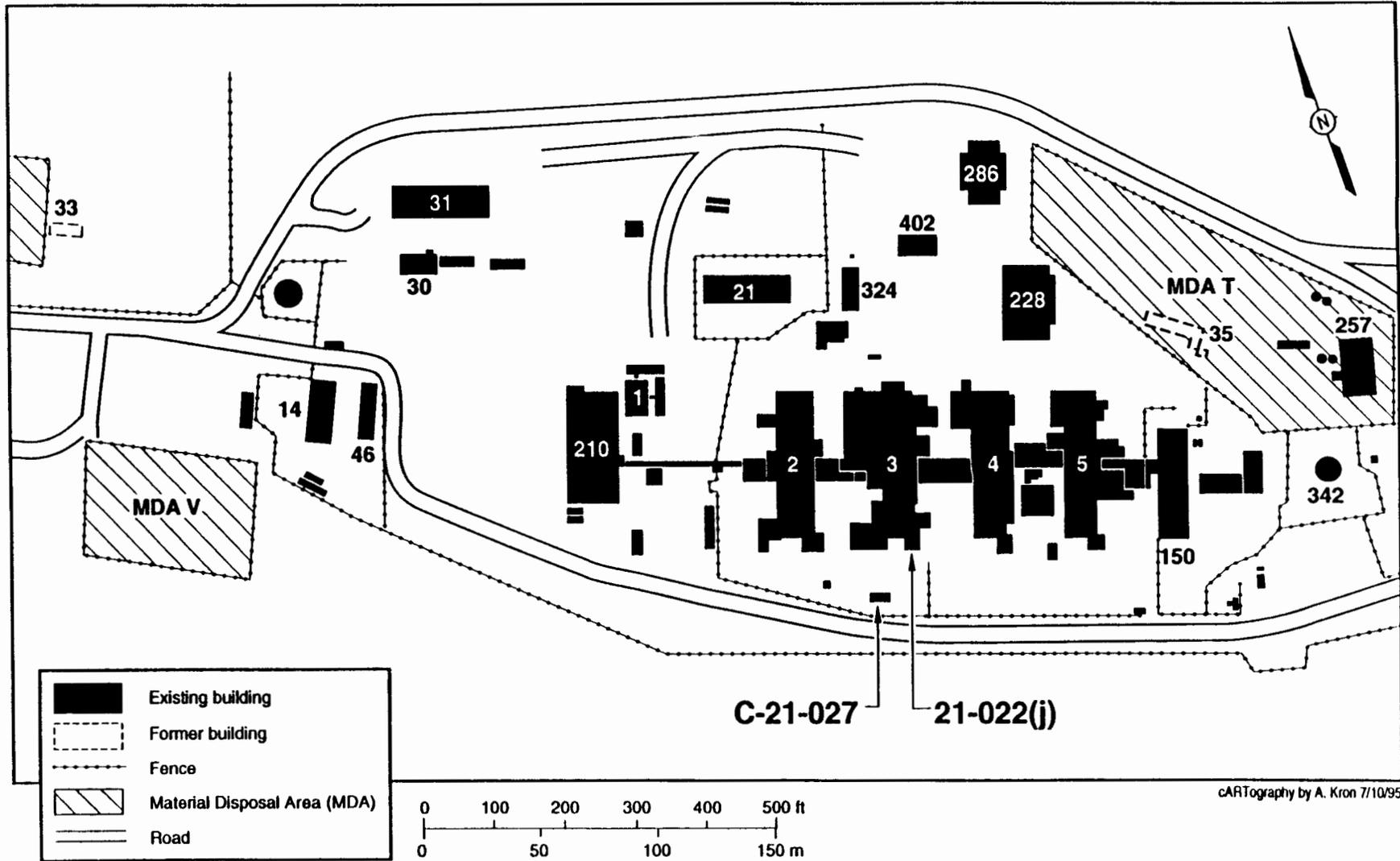


Figure 2.1 TA-21 sites proposed for Voluntary Corrective Action.

Table 2.1. Site Type and Description

No.	Field Unit	Site Number	Site Location (State Plane Coordinates)	Site Type/ Description	Waste Type/ Description
1	1	21-022(j)	162300, 1774270, 7140	Sump Pump	<ul style="list-style-type: none"> • Personal Protective Equipment • Decontamination Fluid or Disposable Sampling Equipment
2	1	C21-027	162230, 1774210, 7140	Cooling Tower	<ul style="list-style-type: none"> • Personal Protective Equipment • Decontamination Fluid or Disposable Sampling Equipment

3.0 PROPOSED REMEDY

The potential release site 21-022(j) is listed in the Laboratory's Hazardous and Solid Waste Amendments (HSWA) permit; the area of concern C21-027 is not. The remedy, which is to ensure that the sites are not contaminated, was begun in April 1995 when decontamination and decommissioning operations removed the contaminated structures that stood on these sites. The remedy will be completed by the proposed confirmatory sampling, discussed in detail below.

4.0 JUSTIFICATION/RATIONALE

The action to be taken at these sites, verification sampling, is obvious, and its implementation is straightforward. Physical access to these sites will be coordinated with organizations that conduct daily activities at TA-21, including the Laboratory's CST and MST divisions and Johnson Controls World Services, Inc.

5.0 ESTIMATED WASTE VOLUMES BY TYPE

All waste will be disposed of through the TA-21 decontamination and decommissioning process; thus, no waste description, volume estimates, or disposal costs have been generated.

6.0 DESCRIPTION OF CONFIRMATORY SAMPLING

We propose to collect soil samples from the areas that these structures occupied before they were removed during decontamination and decommissioning. These samples will confirm that either no contaminants were released to the environment from these structures or contaminants were removed along with the structure.

To ensure worker health and safety and to meet the requirements of the fixed analytical laboratory, samples will be screened for radiation and volatile organic compounds using hand-held field instruments and mobile laboratory techniques.

To verify the absence of contaminants, samples will be sent to a fixed laboratory to be analyzed for gamma spectrometry, tritium, total uranium, isotopic plutonium, isotopic thorium, strontium-90, americium-241, semivolatile and volatile organic compounds, and metals.

If samples are found to contain contaminants at levels greater than screening action levels, the feasibility of these sites for voluntary corrective action will be reassessed, and a phase I sampling and analysis plan or an expedited cleanup plan will be prepared.

6.1 PRS 21-022(j), Sump Pump

We propose to collect three samples from one location in the center of the former sump site. Starting at the bottom of the sump, which is exposed at about 8 ft below ground level, samples will be collected at 0-to-6 in., 6-to-12 in., and 12-to-18 in. intervals using a hand auger or other appropriate method.

6.2 Area of Concern C21-027, Cooling Tower

We propose to collect three samples from one location in the center of the footprint of the former cooling tower. Samples will be collected at 0-to-6 in., 6-to-12 in., and 12-to-18 in. intervals using a hand auger or other appropriate method.

7.0 ESTIMATED SCHEDULE AND COST TO COMPLETE EACH VCA

Table 7.1 describes each site, estimated schedules, and costs that will be incurred. Note that the voluntary corrective action began when the contaminated structures that stood on these sites were removed during decontamination and decommissioning operations in April 1995.

Table 7.1 Estimated Schedule and Cost to Complete

No.	Field Unit	Site Number	Date to Start VCA Process	Date to Complete VCA Process	Estimated Cost of Waste Disposal ^a	Total Estimated Cost
1	1	21-022(j)	4/24/95	9/30/95	NA ^a	\$19,670
2	1	C21-027	4/24/95	9/30/95	NA ^a	\$19,670

^a Waste will be disposed of through the TA-21 decontamination and decommissioning process.