Sandia National Laboratories

PROPOSAL FOR ADMINISTRATIVE NO FURTHER ACTION ENVIRONMENTAL RESTORATION SITE 139, BUILDING 9964 SEPTIC SYSTEM OPERABLE UNIT 1295

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Environmental
Restoration
Project

SANDIA NATIONAL LABORATORIES
ENVIRONMENTAL OPERATION
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PROPOSAL FOR ADMINISTRATIVE NO FURTHER ACTION

SITE 139, Bldg. 9964 Septic System
OU 1295

SANDIA NATIONAL LABORATORIES/NEW MEXICO

1.0 INTRODUCTION

Sandia National Laboratories/New Mexico (SNL/NM) is proposing an administrative No Further Action (NFA) decision for Environmental Restoration (ER) Site 139, Bldg. 9964 Dry Well, Operable Unit (OU) 1295.

ER Site 139 consists of a dry well that is connected to a trench drain inside Building 9964, the Instrument Building for the Shock Facility. The facility, a soil-covered concrete bunker with approximate interior dimensions of twenty-five feet by twenty-five feet, was built in 1965 to house instrumentation equipment for monitoring explosive tests. This site is being proposed for an NFA determination for two reasons: (1) there is no evidence that contaminants of concern were in the building, and (2) there is no evidence that any contaminants were released to the trench drain.

2.0 HISTORY OF UNIT

Building 9964 is the Instrument Building for the Shock Facility. The building currently is not in use. The structure was built in 1965 to house instrumentation equipment for monitoring explosive tests. The site is located within Thunder Range in Coyote Test Field, about one half mile southeast of the southeast corner of Technical Area (TA)-III. There are no sinks or toilet facilities in the building and there is no water supply. Engineering drawings show one interior floor drain piped approximately 25 feet southeast of the building into a dry well measuring three feet by three feet by three feet and filled with 1" aggregate (Attachment 1). The drawings were revised "as built" and are expected to be accurate (Sandia National Laboratories, 1993). An inspection of the building revealed that the drain is located in a covered trench system built into the concrete floor. The trench system is covered by removable diamond plate steel covers and is designed to supply conditioned air to cool the instrumentation racks positioned over the trenches. The trench system is also used to route cables between the racks and the firing site south of the building. The trench drain is intended to prevent the accumulation of water in the trench system to minimize moisture in the air delivered to the instrumentation racks and to keep the cables dry.

Building 9964 was originally included as part of the Septic Tanks and Drainfields SWMU because of quality assurance tests conducted at the firing site southeast of the building on weapon components containing beryllium and depleted uranium. The tests involved detonating small powder charges in a variety of assemblies. In some tests, machined discs of depleted uranium were ejected by the charge along guide rails into a catch pit. The depleted uranium discs were not destroyed during testing. In tests using beryllium, the components were broken into pieces by the charges. All of the uranium and beryllium components used in the tests were routinely recovered and disposed of. After the testing was completed, the guide rails were removed. The surface soil outside the building was suspected of being contaminated by the tests. It was thought that contaminated soil or dust could have entered Building 9964 and been washed down the drain. There was also speculation that small quantities of solvents were used to clean parts. This information on past facility operations caused its inclusion in the Septic Tanks and Drainfields SWMU.

3.0 EVALUATION OF RELEVANT EVIDENCE

The location of the drain in the covered trench and the necessity of preventing liquids from entering the trench system minimizes the possibility of direct disposal of solvents to the dry well. The use of the building for instrumentation purposes minimizes the probability that degreasing solvents in significant quantities could have flowed into the trench drain from an accidental release. According to the building owners, the facility was cleaned by dry sweeping rather than by washdown to preclude water from draining into the depressed trench system. In addition, two recent field investigations found no evidence of radioactive contamination at Site 139. One of the investigations was a gamma radiation survey of the ground surface at ER Site 90, the firing site south of the the building. Site 139 is within the area surveyed for Site 90. The survey was conducted by RUST Geotech, Inc.; no detectable levels were found. SNL/NM health physics technicians also conducted a beta-gamma radiation survey of the interior of Building 9964 and the exterior concrete walkway. Again, no beta-gamma radiation was detected. Both surveys were capable of measuring detectable levels of depleted uranium or beryllium contamination at the site.

4.0 CONCLUSION

The data referenced above and the lack of historical evidence that contaminants were present in the building or that any contaminants were released to the dry well preclude this site from posing any threat to human health or the environment. The lack of evidence of any contamination justifies halting any further investigations and makes Site 139 eligible for an NFA determination.

5.0 REFERENCES

RUST Geotech, Inc., ER Project Surface Gamma Radiation Survey Conducted by Rust Geotech, Inc. 1993 to 1994, Final Report in progress.

Sandia National Laboratories, 1993. "Septic Tanks and Drainfields (ADS-1295) RCRA Facility Investigation Work Plan," Sandia National Laboratories, Albuquerque, New Mexico.

6.0 LIST OF ATTACHMENTS

Attachment 1
Site 139 (Building 9964) Map

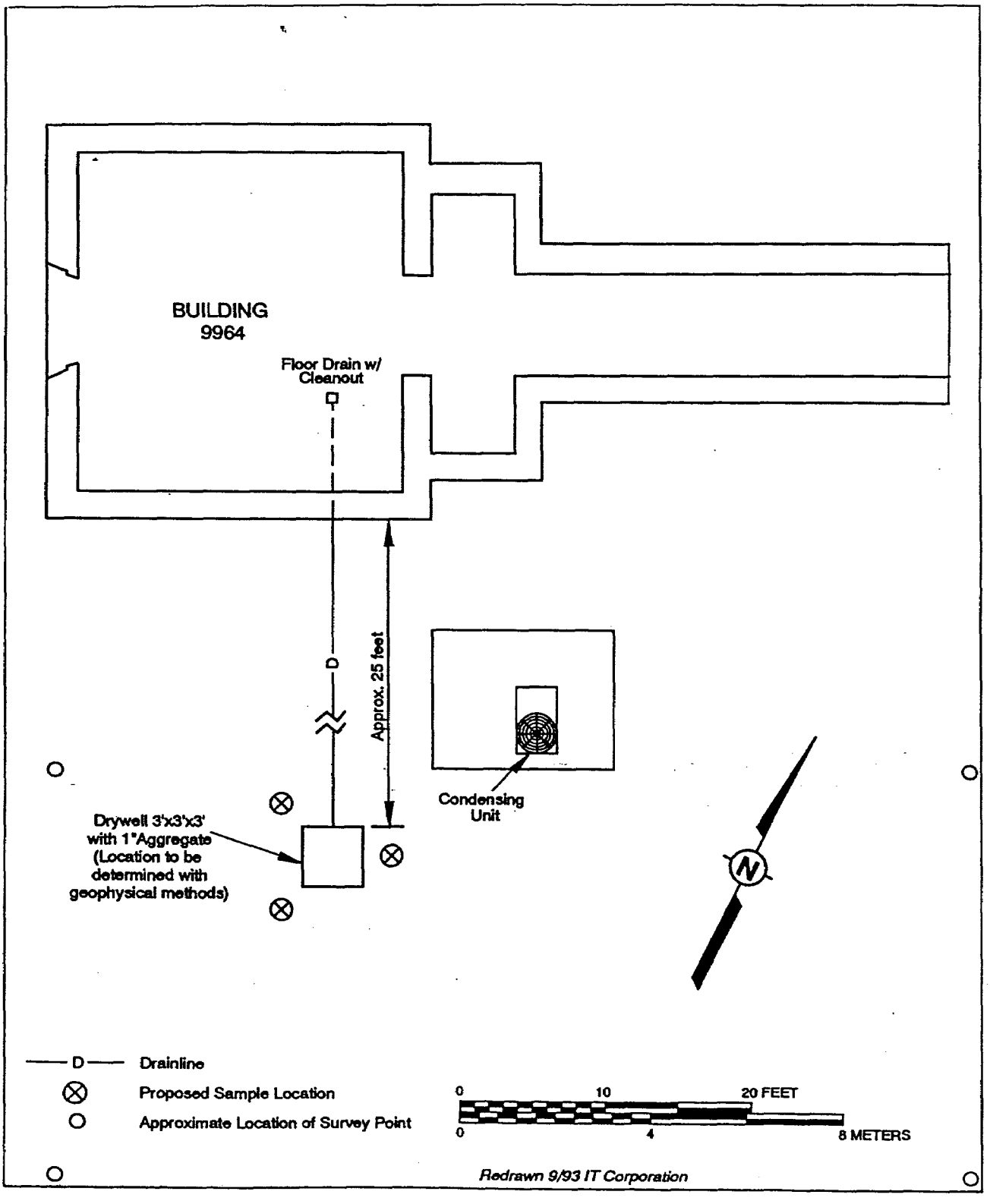

Figure A-3
Site 139 (Building 9964) Sample Location Map