

# Environmental Restoration Project



## ER Site No. 152: Bldg 9950 Septic System

ADS: 1295

Operable Unit: Septic Tanks and Drainfields

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### Site History

ER Site 152 includes the septic system serving Bldg. 9950, which is located 0.8 km (0.5 mi) east of Technical Area III. It was constructed in the early 1960s and was used originally as an explosives test facility. Prior to 1969, explosives testing at Bldg. 9950 involved beryllium, cadmium, lead, mercury, nitroguanidine, Baratol, cyclotrimethylene trinitramine (RDX), and cyclotetramethylene tetranitramine (HMX). The building contained a darkroom, and photographic chemicals were discharged in the sink prior to 1974. Alcohol, kerosene, acetone, and MEK were used to clean parts but were reportedly never discharged into the septic system.

The septic system for Bldg. 9950 consisted of one 2,850-L (750-gal) septic tank and a leachfield with four 7.7-m (25 ft) parallel drainlines. The system is located about 18 meters (60 ft) west of the building. The tank was pumped once a week in the past, indicating that the system may have been overloaded. The estimated effluent volumes for Site 152 range from 115 L/per day (30 gal/per day) to 1,700 L/day (450 gal/day).

The site is approximately 165 meters (535 feet) above the regional water table.

### Constituents of Concern

The constituents of concern at the site include beryllium, cadmium, lead, mercury, explosives residue (nitroguanidine, Baratol, RDX, and HMX), and photoprocessing chemicals (silver, cadmium, hexavalent chromium, and cyanide). Aqueous samples obtained from the septic tank in 1991 detected trichloroethylene (TCE), phenol, chromium, and silver.

## **Current Hazards**

No known surface or subsurface hazards have been identified, based on environmental soil and soil-gas sampling that has been conducted at the site.

## **Current Status of Work**

The septic tank was sampled for waste characterization in the spring of 1994.

A passive soil gas survey in the summer of 1994 found trace quantities of TCE near the distribution box however subsequent soil samples did not detect any organic constituents.

Soil samples were collected from the drainfield and near the septic tank in 1994.

Wastes from the septic tank were removed, the empty tank was inspected by NMED. The tank was decontaminated, and concrete samples were collected to verify that no COCs remain. The tank was then backfilled with clean soil. The abandoned drainfields drainlines are still present at the site, and are buried at an average depth of 3.5 feet below the surface.

A confirmatory sampling No Further Action (NFA) was submitted to the New Mexico Environment Department/ Hazardous Radioactive Materials Bureau (NMED/HRMB) in January 1997. NFA comments were received from NMED in June 1999, and SNL replied to the NMED comments in September 1999. As of August 2001 no additional response to the NFA proposal had been received from NMED.

## **Future Work Planned**

Additional work may be completed at this site pursuant to the Small Septic Systems sampling and analysis plan (SAP).

## **Waste Volume Estimated/Generated**

Around sixteen drums of mixed waste.

**Information for ER Site 152 was last updated Jan 7, 2002.**