



ER Site No. 148: Bldg 9927 Septic System

ADS: 1295

Operable Unit: Septic Tanks and Drainfields

Site History	1
Constituents of Concern.....	2
Current Hazards	2
Current Status of Work	2
Future Work Planned	2
Waste Volume Estimated/Generated	2

Primary Contact: [Dick Fate](#)

Office Phone: 284-2568

Site History

ER Site 148 includes a septic tank and dry well serving Bldg. 9927 in Coyote Test Field, outside Technical Area III, approximately 0.8 km (0.5 mi) south of Bldg. 9920 and 9926. Since 1962, the building was used as an explosive test facility for an assortment of outdoor tests, including rocket motor armor-penetration tests and simulated terrorist attacks. Later tests involved the detonation with explosives of beryllium, lead, lithium, and depleted uranium (DU) assemblies. Inside the building, black-and-white and X-ray film were developed in a darkroom, where photographic waste solutions and rinse waters were discharged into the sink. Approximately 38 L (10 gal) of photoprocessing solutions and an unknown volume of rinse water were discharged to the septic system every ten months. The total volume of photographic solutions discharged to the septic system over the life of the facility may exceed 2,300 L (600 gal). Small quantities (1 to 2 L/yr [0.25 to 0.5 gal/yr]) of cleaning compounds such as alcohol and acetone have been used and may have entered the septic system via the sinks or floor drains. Estimated effluent volumes range from 76 L/day (20 gal/day) to 3,800 L/day (1,000 gal/day).

The building contains one restroom with sink, toilet, and floor drain. The darkroom contains one sink and one floor drain. Floor drains in a trough within the building reportedly were never used. All drains and sinks in the building discharged to a septic system consisting of a 2,850-L (750-gal) septic tank and a 1.2-m (4-ft) diameter by 1.2-m (4-ft) deep seepage pit. The tank is located 21 m (70 ft) south of the southeast corner of the building. The top of the seepage pit is 1.8 m (6 ft) below ground surface, with a surface manhole access. The septic tank was pumped three times in 1989. The septic system is no longer in service.

The site is approximately 145 meters (473 feet) above the regional water table.

Constituents of Concern

The constituents of concern are beryllium, lithium hydride, lead, DU, photoprocessing chemicals (silver, cadmium, hexavalent chromium, and cyanide), and cleaning compounds. Aqueous samples obtained from the septic tank in 1991 detected trichloroethylene (TCE) and PCE; sludge samples detected barium, mercury, lead, 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

Sampling of the septic tank contents for waste characterization was performed in 1994 and 1995.

Passive soil gas sampling was performed in the summer of 1994. No significant Volatile Organic Compound (VOC) or Semi-Volatile Organic Compound (SVOC) anomalies were detected in the soil.

Soil sampling around the septic tank and seepage pit was performed in the fall of 1994. No releases of hazardous or radioactive COCs were detected in soils around the septic system components at this site.

Waste was removed from the septic tank, and the empty tank was inspected by (NMED) in late 1995. The tank was decontaminated, and concrete samples were collected from the tank to verify that no COCs remain. The tank was then backfilled with clean soil.

A confirmatory sampling No Further Action (NFA) was submitted to the New Mexico Environment Department/Hazardous Radioactive Materials Bureau (NMED/HRMB) in September 1995, and NFA comments were received from NMED/HRMB in April 1997. SNL replied to the NMED comments in June 1997.

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

Two drums of radioactive waste were generated at this site.

Information for ER Site 148 was last updated Dec 11, 2001.