



ER Site No. 145: Bldg 9981/9982 Septic Systems

ADS: 1295

Operable Unit: Septic Tanks and Drainfields

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Primary Contact: [Dick Fate](#)

Office Phone: 284-2568

Site History

ER Site 145 includes the septic system and surface outfall that formerly served Bldg. 9984, and the septic system formerly serving Bldg. 9981/9982. Bldgs. 9981/9982, the Solar Control/Solar Assembly facility, are located in the Coyote Test Field off Magazine Road, approximately 1.2 km (0.75 mi) west of the intersection with Lovelace Road. The solar facility was constructed in 1976 for the research and development of solar thermal technology. The Solar Control Building is a large office and control building containing a staff of 30 to 50 people. The Solar Assembly Building is used for repair and assembly of heliostats and other solar equipment. Bldg. 9984, located west of Bldg. 9982, is known as the Engine Test Facility.

Buildings 9981 and 9982 share a septic system for lavatories and sinks. The septic system is located northwest of Bldg. 9982 and west of the north-south access road, and consists of a 3,800 L (1,000 gal) septic tank and a leachfield with five 15.4 m (50 ft) distribution lines. The septic system is no longer in use. According to the September 1993 site visit interviews, floor drains in Bldg. 9982 discharged to a surface outfall near the northwest corner of the building. SNL/NM Facilities Engineering drawings indicate that the surface outfall released the liquid wastes from the drain into a ditch west of Bldg. 9981. The floor drains are now filled with grout. There is no historical evidence that any constituents of concern were released to the surface outfall via the floor drains. Material Safety Data Sheets in Bldg. 9981 list other chemicals as well (methyl cyanide, methylene chloride, hexane, hydrofluoric acid, toluene, benzene, and xylene). There is no evidence that these chemicals were discharged into the septic system or drainfields.

The sinks and toilets in Bldg. 9984 drained to a 4-ft. by 8-ft. septic tank on the west side of the building and into three drain lines, each 12.3 m (40 ft) long. According to the September 1993 site interviews, the three drainfield lines in the southern half of the drainfield were removed when underground utilities were installed during construction of a facility to the west of Bldg. 9984. Three floor drains in Bldg. 9984 discharged to a grease trap outside the northwest corner of the building, and drained to a surface outfall in a roadside ditch about 62 m (200 ft) north of

the building. This septic system is also no longer in use. The grease trap outlet is now connected to the sanitary sewer system.

The site is approximately 42 meters (140 feet) above the regional water table.

Constituents of Concern

The constituents of concern at the site include methyl cyanide, acids, and organic compounds [trichloroethylene (TCE), trichloroethane (TCA), PCE, methanol, xylene, hexane, toluene, benzene, and acetone]. Aqueous samples obtained from the septic tank serving Bldg. 9981 and 9982 during a survey in 1991 detected TCE, barium, cadmium, chromium, copper, lead, manganese, mercury, zinc, total phenolic compounds, and oil and grease.

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

Septic tank sampling was performed in 1994 for waste characterization.

A passive soil gas survey conducted in the summer of 1994 did not detect any volatile organic compound anomalies.

Soil sampling conducted in the winter of 1994 collected samples from around the two septic tanks, in the two drainfields, and from two locations near the estimated former location of the grease trap surface outfall.

Waste was removed from the septic tanks, and the empty tanks were inspected by New Mexico Environment Department (NMED) in late 1995. Tank concrete samples were collected to verify that no COCs remain. The tanks were decontaminated and then backfilled with clean soil. The abandoned drainfields drainlines are still present at the site. The west system drainlines are buried at an average depth of 2.5 feet below the surface, and those for the east septic system are an average of 7.5 feet deep.

A confirmatory sampling No Further Action (NFA) proposal for this site was submitted to the NMED/HRMB in May 1997. NMED issued a Request for Supplemental Information (RSI) in June 1999, and SNL/NM responded to that RSI in September 1999. In December 1999, NMED found Site 145 to be acceptable for NFA. The NFA was officially approved by NMED in October 2000 after completing the public review and permit modification process.

Future Work Planned

No future work is planned.

Waste Volume Estimated/Generated

Forty-six drums of mixed waste was generated in emptying the septic tank serving Bldg. 9981/9982.

Information for ER Site 145 was last updated Aug 15, 2001.