

Environmental Restoration Project



ER Site No. 144: Bldg 9980 Septic System

ADS: 1295

Operable Unit: Septic Tanks and Drainfields

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Primary Contact: [Dick Fate](#)

Office Phone: 284-2568

Site History

ER Site 144 includes a septic system and a surface outfall serving Bldg. 9980. Bldg. 9980, the Solar Power Tower, is 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.

Wash sinks and toilet facilities for up to 20 people were served by a 3,800 L (1000 gal.) septic tank and a 56 square meter (600 square feet) leachfield with six 15 m (50 ft) distribution lines. The septic system is located on the west side of the west access road to the Solar Tower. The estimated effluent discharge rate for the Site 144 septic system ranges from 380 to 8,500 L/day (100 to 2,500 gal/day). Some floor drains in the Solar Power Tower discharged to a surface outfall located in a depression between the parking lot and the west access road.

Large volumes of ethylene glycol coolant are used in Bldg. 9980, along with small volumes of ammonium hydroxide and hydrazine. An underground storage tank receiving the spent coolant and effluent from floor drains was discharged periodically to the asphalt south of the Building 9980.

The site is approximately 33 meters (110 feet) above the regional water table.

Constituents of Concern

Aqueous samples obtained from the septic tank detected trichloroethylene, cadmium, copper, lead, manganese, mercury, total phenolic compounds, and oil and grease. No other constituents of concern were identified during personnel interviews.

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 for waste characterization purposes in 1994 and 1995.

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

Soil samples were collected in the drainfield, around the septic tank, from the surface outfall location in the fall of 1994, and from a second surface discharge location in May 1995.

Waste was removed from the septic tank, and the empty tank inspected by New Mexico Environment Department (NMED) in late 1995. Concrete samples were collected to verify that no COCs remain. The tank was decontaminated and then backfilled with clean soil. The abandoned drainfield drainlines are still present at the site and are buried at an average depth of about five feet below the surface.

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 issued a second RSI and indicated that Site 144 was 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

Nine drums of radioactive waste was generated at this site.

Information for ER Site 144 was last updated Aug 15, 2001.