

Environmental Restoration Project



ER Site No. 149: Bldg 9930 Septic System

ADS: 1295

Operable Unit: Septic Tanks and Drainfields

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Site History

ER Site 149 includes the septic tank and seepage pit serving Bldg. 9930. Bldg. 9930 was constructed in 1961 and is located in Coyote Test Field. Currently the building is used for explosive testing, photographic reproduction, and general laboratory operations. Explosive tests are performed northwest of the building in a concrete-bunkered area that contains no drains. Photoprocessing chemicals, including alkaline-based developers, acetic acid, ammonium thiosulfate, and small quantities of sulfuric acid, were discharged directly into the septic system. Laboratory chemicals such as acetone, MEK, and isopropanol were discharged onto the ground or thrown into the trash. Presently, all photographic chemicals and lab wastes are containerized and disposed of off-site.

Sinks and/or floor drains are located in the darkroom, the bathroom, and the compressor room. The septic system for Bldg. 9930 consisted of one 2,850-L (750-gal) septic tank and a 1.2-m (4-ft) diameter by 1.2-m (4-ft) deep seepage pit located south of the building across the access road. Records indicate that the effluent discharge rate ranged between 150 L/day (40 gal/day) and 3,040 L/day (800 gal/per day). The septic system is no longer in use.

The site is approximately 133 meters (431 feet) above the regional water table.

Constituents of Concern

The constituents of concern at the site are photoprocessing chemicals (silver, cadmium, hexavalent chromium, and cyanide), organic compounds (acetone, MEK, and isopropanol), high explosives (HE), and metals (mercury, barium). Aqueous samples obtained from the septic tank in 1991 detected phenol, phenolic compounds, chromium, and silver. No releases of radioactive material are known to have occurred.

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 in the spring of 1994 for waste characterization.

A passive soil gas survey was conducted in 1994. The only volatile organic compound anomalies were a few samples showing BTEX in the soil. Because the septic system is downhill from a parking area serving the facility and because heavy earth-moving equipment was at the site when the building was connected to the sanitary sewer system, the source of the BTEX is not considered to be the septic system.

Waste was removed from the septic tank, and the empty tank was inspected by NMED in 1995. The tank was decontaminated, and concrete samples were collected to verify that no constituents of concern remained. The decontaminated tank was then backfilled with clean soil.

A confirmatory sampling No Further Action (NFA) proposal was submitted to the New Mexico Environment Department/ Hazardous Radioactive Materials Bureau (NMED/HRMB) in July 1996. Comments on the NFA proposal were received from the NMED in June 1998, and SNL/NM responded to these comments in November 1998. NMED issued a second request for supplemental information (RSI) in June 2000 and required that additional high explosives (HE) soil samples be collected, and a monitoring well be installed at this site. SNL/NM responded to this second RSI in September 2000 and agreed to these additional requirements. A groundwater monitoring well (well CTF-MW3) was installed at a location approximately 300 feet west of, and downstream of this site in August 2001. Also, one additional high explosives soil sample was collected at the former seepage pit location at this site on Oct. 10, 2002.

Future Work Planned

Groundwater samples will be collected from well CTF-MW3 for a minimum of eight quarters, or two years. These samples will be analyzed for volatile organic compounds (VOCs), high explosive (HE) compounds, metals, and cyanide. The analytical results for these groundwater and additional soil samples will be reviewed by NMED and SNL/NM personnel and the site will either be approved for NFA, or additional characterization work will be completed.

Waste Volume Estimated/Generated

Five drums of hazardous waste were generated at this site.

Information for ER Site 149 was last updated Jan 17, 2003.

