

Environmental Restoration Project



ER Site No. 82: Old Aerial Cable Site Scrap

ADS: 1332

Operable Unit: Foothills Test Area

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Site History

ER Site 82, the Old Aerial Cable (OAC) Site Scrap is located in a small canyon to the east of Coyote Canyon Test Field. Access is uncontrolled. The facility was equipped with an impact pad, overhead cable, rocket-sled track, and catcher box. The site is approximately 84 acres in area. The site boundary was determined as the boundary for the unexploded ordinance (UXO) survey, since UXO was located at the site.

The site is no longer in use as the OAC test site. In 1990 the HERTF was constructed on the site by Phillips Laboratory for the United States Air Force (USAF). The High Energy Research Test Facility (HERTF) facility is currently active. Portions of the site have been bulldozed to accommodate construction of the facility, which includes a building and parking lot.

Environmental restoration activities in 1994 at the site included a surface radiation survey, a UXO survey, cultural and ecological surveys. A Voluntary Corrective Action was conducted in 1999 to remove debris from an arroyo.

The OAC site was constructed in 1968 for the purpose of conducting fuel-air explosion (FAE) tests. The facility was originally designed for dropping the test units, but later tests required the use of rocket-powered sleds to accelerate and draw down the test units from an overhead cable. The test units impacted on a concrete pad. The rocket sled traveled on a rail system that terminated in a catcher box filled with sand. A trolley system was also used on the Aerial Cable. It carried targets used for testing interceptor missiles launched from the ground.

The OAC was shut down for a few years in the mid-1970s due to a lack of funding, and re-opened in the early 1980s. The facility then operated until 1989, when the HERTF was constructed on the property by Phillips Laboratory in 1990.

Tests and Materials Used

A variety of tests and materials were used at the OAC. These include:

- Weapons tests
- FAE tests
- Material shipping tests
- Mark 3 tests
- Marine missile warning tests
- Plutonium Aerosol Generation Experiments (PAGE) - Depleted Uranium (DU) was used as a surrogate for plutonium.

Most of the tests were conducted within a 300-ft radius impact area under the cable.

Two other areas at the OAC site where contaminants may have been released to the environment are the old generator leak to the southeast of the site and potential unburned rocket propellant at the catch box. The generator was dismantled and removed from the site.

According to one source, the work site and the arroyo to the northeast contained all descriptions of scrap metal, parachute, ordnance casings, and packing material. This material appears to have been removed. There is also some construction debris (concrete slabs, pallets) in the arroyo to the southwest. This material has been screened for radiation by SNL RPO in September 1994, and no levels of radiation above background level were detected.

Constituents of Concern

Radioactivity is a primary Constituent of Concern (COC). DU was released in fragmented form from the Mark 3 tests and in dispersed form from the PAGE tests. Cerium (Ce) was also released from the PAGE test. The Mark 3 test was detonated at the impact area and the PAGE tests were detonated 100 ft northeast of the impact area, with the sampling array to the southwest.

From the surface gamma survey performed in January 1994, four area anomalies were detected. These anomalies are in a granitic terrain and have been interpreted as geological anomalies and are not considered man-made.

A previous radiological survey was performed by the SNL Health Physics Group in December 1992. This survey involved surface screening and soils analyses of radioactive materials. According to this report, no detectable DU was present at the sample locations. Thorium was found to be elevated in samples taken during the 1999 VCA. The thorium was found to be associated with bedrock outcrops however, not testing debris. Four pieces of metal contaminated with DU were excavated and removed during the 1999 VCA.

Unexploded ordnance/high explosives (UXO/HE) is another COC. One grain of rocket propellant located near the catch box of the rocket sled track during the UXO survey of January 1994 was subsequently removed. Residual explosives in the soil were found in only one sample and were below action levels.

Metals are a third COC. Arsenic, beryllium, cadmium, lead, mercury, nickel, and zinc were found above approved background values in at least one sample. Diesel fuel was released at the generator pad in the southwest corner of the site. Fuel oil staining has been observed on the soils. No cleanup activities of the soils have been conducted. Low levels of volatile organic compounds were found around the generator pad. All levels were well below action levels. Chrysene was found in one sample from the generator pad area.

Current Hazards

There are no current hazards at this site related to contamination of the surface or subsurface soils. There may be structures or stored materials that remain at the site that are a potential hazard.

Current Status of Work

Resource Conservation and Recovery Act (RCRA) Facility Investigation sampling has been completed. A VCA was conducted in 1999 to remove buried debris from an arroyo.

The site was accepted for a risk-based NFA in September 2000. This site was accepted for No Further Action by NMED on December 5, 2000. The NFA was approved by NMED on November 19, 2001, after completing the public review and permit modification process.

Future Work Planned

None

Waste Volume Estimated/Generated

Approximately 40 cubic yards of solid waste were removed from the site. Approximately 30 pounds of rocket propellant was also removed. Four DU contaminated fragments were also found and removed.

Information for ER Site 82 was last updated Mar 12, 2002.