

Environmental Restoration Project



ER Site No. 240: Short Sled Track

ADS: 1306

Operable Unit: Tech Area III & V

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Site History

The short sled track was identified as an Area of Concern I during the 1987 SNL Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA). The site was designated ER Site 240 during the Comprehensive Environmental Assessment and Response Program (CEARP) Phase I Installation Assessment. The findings of the CEARP Assessment were uncertain, and further investigation was recommended.

The 2,000-ft Short Sled Track was built in 1951. The sled track consists of "railroad" type track supporting rocket-powered sleds and free-flight boosters used to accelerate test articles or targets.

Documentation of the tests performed at the Short Sled Track is not currently available. However, in general, greater mass, lower velocity tests than those performed at the [Long Sled Track](#), are conducted at the Short Sled Track. The dispersion of debris from impacts would, therefore, be over a smaller area at the Short Sled Track than at the Long Sled Track.

The Short Sled Track was decommissioned for a short period of time but was reactivated in 1995.

SNL's Industrial Hygiene Services performed an airborne exposure sampling in November 2002 to document personal exposure during operations conducted at Site 240. Air samples were collected and analyzed for lead, beryllium, lithium, mercury, niobium and uranium. The personal breathing zone exposure measurements indicated that airborne elemental levels during digging operations were less than the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs) for an 8-hour time-weighted average (8-hr TWA) and less than the OSHA Action Levels.

Constituents of Concern

Depleted Uranium
Unexploded Ordnance and High Explosives
Metals (Pb, Be, Li, Hg, Nb)
Perchlorate

The Site History section above contains information regarding personal airborne exposure levels for many of these constituents during routine operations at the site.

Current Hazards

On the surface and in the near-surface soil:
Depleted Uranium
Unexploded Ordnance and High Explosives
Metals (Pb, Be, Li, Hg, Nb)

Current Status of Work

A surface radiation survey of the impact area (south end) of the sled track and surrounding areas was completed in 1994. Depleted uranium anomalies (260 of them) were located and removed; this effort was completed in May 1996. It should be noted that the surface radiation survey was not intended to locate deeply buried radioactive materials at the sites. It is possible that, because of the nature of the penetration and impact tests conducted at the sled track, other radioactive materials are located at depths greater than the 6 to 18 in. investigated during the survey.

Surface soil samples (201 of them) were also collected. The samples were analyzed in two phases. In the 1st phase, four to five samples were composited and field-screened for metals using x-ray fluorescence and for HEs using immunoassay kits. Based on the results of the field screening, the second phase of sampling was conducted to collect discrete samples for laboratory analysis. These samples were analyzed for select metals (beryllium, lead, lithium, mercury, niobium, and uranium), HEs, and gamma spectroscopy. No HEs were detected above the method detection limits (MDLs). No mercury was detected above its MDL. Niobium and lithium were found only in very low concentrations (0.2 to 0.4 mg/kg for niobium and 5 to 8 mg/kg for lithium). Most of the lead values were below background; all but one concentration was in the range 3.7 to 14.2 mg/kg. The highest concentration of lead (104 mg/kg) was found at the north end of the track. No action was taken to remediate the lead-contaminated area because the concentration was well below the proposed RCRA Subpart S soil action level of 2,000 mg/kg.

A more complete investigation summary, data analysis and interpretation for this site are presented in the TA-III&V RFI report. During the course of the RFI, the Short Sled Track was reactivated for testing. Thus, geophysical surveys to locate more deeply buried radioactive materials will be postponed until final site decommissioning.

Future Work Planned

Upon decommissioning of the site, full characterization according to the RFI Workplan will be performed. No schedule for decommissioning was available as of January 2003.

Waste Volume Estimated/Generated

Thirty-one drums of radioactive waste were generated by the RUST/Geotech Radiation VCM at this site.

Information for ER Site 240 was last updated Mar 6, 2003.