



## ER Site No. 66: Boxcar Site

ADS: 1332

Operable Unit: Foothills Test Area

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### Site History

The Boxcar Site, ER Site 66 is located off Demolition Range Road southeast of Manzano Base, on the road toward the TRUPACT Boneyard and the Old Aerial Cable Site. The actual site is located in an area that slopes gently to the southwest, approximately 250 ft south of a metal bunker. The original site is 3 acres in area, and the boundaries of that area also encompassed the surface radiation survey. Currently, the site is inactive.

The Boxcar Site was used to study detonations in Atomic Missile (ATMX) railroad cars to determine if subsequent detonations would occur if one of the weapons exploded. The tests were conducted in 1958-1959. The site was comprised of a boxcar with concrete shielding and four telephone poles with wire cables. The telephone poles and wire cables were used to hoist the units, which were placed on elevated platforms. Triangular-shaped concrete barriers about 2.5 ft high were constructed and placed between weapons units to deflect the explosive materials when a detonation occurred. The weapons units had dummy pits. There were no nuclear materials used in the tests. An unknown quantity of TNT was used for each test. The green metal bunker to the north of the test site was used to store detonators. According to sources, the boxcar tests were the only tests performed at the site by SNL. NMED requested the site be expanded to include additional test pads and structures close to the Boxcar test site, thus increasing the area to 17 acres.

### Constituents of Concern

No nuclear material was used at the site. No radiation above background was detected in the area in a recent survey conducted in 1994.

In 1988, 22 soil samples were collected from the Boxcar site and analyzed for metals, pesticides, polychlorinated Biphenyls (PCB), TNT, and SVOCs. Detectable levels of Al, Ba, Ca, Ce, Cr,

Hg, Fe, K, Mg, Mn, Pb, Ti, Zn, As, V, Cu, Ni, and Se were measured. No detectable levels of TNT, pesticides, or PCBs were measured. One sample contained pentachlorophenol at 2 ug/L. Total uranium concentrations range from 0.91 ug/g to 1.5 ug/g. Sampling in 1998 found elevated arsenic, beryllium, cadmium, lead, mercury, and silver in at least one sample. The levels are close to background and are below action levels. Toluene and 1,1,1-trichloroethane were found at very low levels in three samples. Thorium 232 and Uranium 235 were slightly elevated above background in some samples but well below action levels.

## **Current Hazards**

RFI sampling results indicate that the soil contains slightly elevated Th-232, Volatile Organic Compounds, and elevated metals. The thorium levels are consistent with the bedrock of the area. Risk assessment has not been conducted but the site should pass risk. There may be structures or stored materials that remain at the site that are a potential hazard.

## **Current Status of Work**

A No Further Action (NFA) proposal was submitted for this site in October 1996. New Mexico Environmental Department (NMED) requested additional sampling which was conducted in 1998. An RSI Response which included results of the additional sampling was submitted to NMED in January 2003.

## **Future Work Planned**

No additional work is planned.

## **Waste Volume Estimated/Generated**

A housekeeping VCM removed 4 55-gallon drums of scrap metal in 1998.

**Information for ER Site 66 was last updated Jan 29, 2003.**