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Nevada Site Office Environmental Management

EM NEWS FLASH



State Approves Closure of Historic Nuclear Blast Site

During the height of the Cold War, 100 atmospheric nuclear weapons tests were conducted in remote areas of the Mojave Desert at the Nevada Test Site. Although the twisted metal and concrete remain, the isolation and cleanup of these national security activities is a priority. On June 4, 2009, a major milestone was reached when the State of Nevada approved the closure of a former atmospheric nuclear weapons test location, known as T-4.

Between May 25, 1952 and July 24, 1957, four nuclear detonations, including [Fox](#), were conducted at the T-4 site, located in Area 4 of the Nevada Test Site. Following each of these tower tests, some debris and contaminated soil was removed from the site. However, contaminated soil remained along with remnants of the towers, an associated bunker and soil berm, and pieces of metallic and concrete debris.

For more than a decade, discussions have ensued between the U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office (NSO) and the State of Nevada Division of Environmental Protection (NDEP) regarding the level and extent of remediation necessary for historic atmospheric test locations. “It is imperative that both NSO and NDEP are confident in how sites like these achieve environmental completion,” explained Kevin Cabbie, the Acting Soils Federal Sub-Project Director. “Teamwork and open dialogue with the State resulted in a successful closure approach which saved millions of taxpayer dollars while protecting the interests of the public.”

The first step necessary to reach closure was to determine an investigation approach that NSO and NDEP could agree upon. NSO designed the investigation approach to determine the nature, distribution, and extent of hazardous and radioactive contamination (e.g., lead, plutonium, cesium) at the site. Upon approval of the investigation plan by NDEP, field investigations including detailed surveys and sampling of the site were completed. These activities, referred to as “site characterization,” included collecting and analyzing samples from numerous specific locations, and removing lead plates and batteries.



T-4 Soils site located in Area 4 of the Nevada Test Site

The U.S. Department of Energy (DOE) National Nuclear Security Administration Nevada Site Office is required to complete cleanup of the Nevada Test Site in accordance with the [Federal Facility Agreement and Consent Order \(FFACO\)](#). The FFACO is a legally-binding document between DOE, the U.S. Department of Defense, and the [State of Nevada Division of Environmental Protection](#) that identifies contaminated sites in Nevada; lists and prioritizes milestones, due dates, and deadlines; outlines corrective action strategies; and details the public involvement process.

The information gathered during the investigation was then presented to NDEP and various corrective action scenarios were evaluated and discussed. NSO and NDEP considered the current and future land use, potential risk to current and future workers, and cost versus the risks and benefits of removing the contamination and transporting the resulting waste to an appropriate disposal facility. Based on these factors, it was determined that the most appropriate method for reaching environmental completion of this site was to close the historic site in place, which includes restricting future access to the land.

The closure process included implementing administrative and physical controls such as placing formal land use restrictions on the contaminated area, posting warning signs and repairing existing fencing around the area of contamination to limit future potential worker exposure. These controls will be inspected annually as part of the long-term monitoring process. NDEP approval for closure of this first Soils Corrective Action Site was just the beginning as fifteen additional sites have since been closed.

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