Environmental Restoration

Central Nevada Test Area

. . .an Offsites Project

History and Site Overview

In 1968, the Atomic Energy Commission (predecessor agency to the U.S. Department of Energy - DOE) conducted an underground nuclear test known as Faultless at the Central Nevada Test Area north of Tonopah, Nevada. The Faultless test was part of a program aimed at determining the usefulness of the Central Nevada Test Area, or CNTA, as a supplemental test site to conduct high-yield explosive experiments. With a yield of between 200 kilotons and one megaton, Faultless was detonated at 3,200 feet below ground surface. Two other subsurface tests were planned at CNTA but never completed.

Located in Nye County, CNTA consists of three individual tracts of land located in the north-central part of the Hot Creek Valley in south central Nevada. Although owned jointly by the U.S. Department of the Interior, Bureau of Land Management and the U.S. Department of Agriculture – Forest Service, CNTA continues to be overseen by the DOE. Unlike the Nevada Test Site, which maintains an ongoing mission for the DOE complex, CNTA is no longer active and will eventually be released to its owners.

Site Cleanup

In 1989, the DOE's Nevada Site Office (NSO) launched an intensive environmental restoration effort at sites that were contaminated as the result of DOE and U.S. Department of Defense (DoD) activities. The Federal Facility Agreement and Consent Order (FFACO) is an agreement entered into by the DOE, the state of Nevada, and the DoD that describes the process for restoring and monitoring sites like these in Nevada. The FFACO outlines a cleanup strategy that calls for separate investigations and corrective actions for the surface and the subsurface environments at CNTA.

Surface

During surface characterization activities, NSO identified hydrocarbon contamination associated with past drilling operations to be present at the surface on all three tracts of land. NSO characterized a total of thirty-four surface sites at CNTA and then performed a variety of closure activities. Some surface sites were closed in place with no further action required. Exposed drilling mud pits at other sites called for the construction of specially-engineered covers. Closure activities were completed in 2000 with the state of Nevada Division of Environmental Protection (NDEP) issuing approval in 2001.

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Subsurface

NSO is working to establish a long-term monitoring strategy (using new and existing wells) to track the potential movement of contaminants in the subsurface at CNTA. A computer model known as a Flow and Transport model illustrates three-dimensional images of groundwater flow patterns and potential pathways for contaminants. NSO completed a Flow and Transport model along with a modeling report in 2000. NDEP accepted the modeling approach the following year.

Status

NSO is currently working with NDEP to develop a long-term monitoring plan for the subsurface at CNTA. The plan will likely require the installation of new monitoring wells.

The DOE currently maintains control over the subsurface at CNTA and will continue to do so until a 5-year proof-of-concept period validates the predictions of the groundwater model. Restrictions on the subsurface, including the use of groundwater, will most likely be in place even after the land is transitioned back to its owner. While the CNTA surface may be considered safe for unrestricted use, public access may still be restricted depending upon future use scenarios.

CNTA is one of nine Offsites managed by the Nevada Site Office Environmental Management Program. Offsites are located off of the Nevada Test Site (two in Nevada, two in Colorado, two in New Mexico, one in Alaska, and one in Mississippi).

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Working today to protect your future

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