

**Environmental Restoration
Monthly Report to the NSSAB
May 2012**

Waste Management

- The total low-level/mixed low-level waste disposal volume through the end of the fiscal year 2012 second quarter is 399,817 cubic feet.
- On March 20, 2012, a shipment en route to the Nevada National Security Site (NNSS) from the Kansas City Plant did not follow an approved route and traveled through the Las Vegas Valley. The Nevada Site Office (NSO) issued the generator, National Security Technologies, a Correction Action Request. The generator has been suspended pending resolution of a Corrective Action Plan.
- The investigation and required corrective actions regarding the 17 waste shipments from Los Alamos National Laboratory (LANL) with contaminated trailer beds in excess of Department of Energy release limits has been resolved. LANL has implemented the Corrective Action Plan and the NSO and the State of Nevada have conducted a verification surveillance to verify LANL implementation of the CAP. LANL is permitted to resume shipments to the NNSS.
- The NSO's Radioactive Waste Acceptance Program (RWAP) conducted three generator surveys in April. The surveillance of Nuclear Fuel Services in Tennessee resulted in one minor observation. The surveillance of Lawrence Livermore National Laboratory in California resulted in three minor observations. The survey at Portsmouth Diffusion Plant in Ohio resulted in one observation. The observations in these surveys did not impact the generators' Waste Acceptance Criteria programs. Generators must respond to the NSO within 30 days of receiving the surveillance report.
- The NSO conducted a verification survey in Idaho for a mixed low-level waste that will be sent to the NNSS for disposal.

Underground Test Area (UGTA)

Corrective Action Unit (CAU) 97, Yucca Flat

Additional analyses on the flow and transport model continue.

CAU 98, Frenchman Flat

The current plan for Frenchman Flat calls for drilling two model evaluation wells (ER-5-5 and ER-11-2) with the main hole construction starting in the July 2012 time frame.

CAU 99, Rainier Mesa/Shoshone Mountain

Flow and transport modeling analyses and evaluation continues.

CAUs 101/102, Pahute Mesa

In April, well development and testing activities at Well ER-EC-12 (lower zone) were completed, and pre-sampling activities initiated at Well UE-20n #1. In May, sampling of Wells ER-20n #1 and ER-20-6 #3 will be completed and well testing initiated at Well ER-EC13 (upper zone).

Industrial Sites

CAU 114, Areas 25 EMAD Facility

Revision 1 of the final Streamlined Approach for Environmental Restoration (SAFER) Plan for CAU 114 was submitted to NDEP and approved in July 2010. SAFER activities will include site preparation (e.g., utility clearances, radiological surveys), sample collection of potential source material, and removal and disposal of potential source material or closure in place. In April, site setup and mobilization began, as did radiological surveys and walkdowns. In May, mobilization, site setup, and radiological surveys will continue; characterization field work will begin.

CAU 547, Miscellaneous Contaminated Waste Sites

In April, closure activities were completed at CAU 547. CAU 547 consists of radioactively contaminated gas sampling assemblies at three historical testing locations: MULLET, TEJON/BERNALILLO, and PLAYER. Closure work consisted of closure in place by capping expansion joints with grouted metal casings and installing soil covers over all of the other piping. At PLAYER, closure work was completed in April, including the final topographic laser survey, welding signs on the casings, installation of the fence, and demobilization. Final site conditions were documented with photographs. The site work is now complete at all three locations. The final Closure Report, which is an enforceable milestone under the FFACO, is being prepared and is due to NDEP by January 31, 2013.

CAU 548, Areas 9, 10, 18, 19, and 20 Housekeeping Sites

CAU 548 consists of 20 housekeeping sites, including drums, waste piles, and batteries. Closure field work associated with CAU 548 is complete. The remaining mixed waste associated with CAU 548 that was transported to an offsite treatment facility in February was treated in April. The waste is expected to be shipped back to the NNSS and disposed at Area 5 in May. The final Closure Report, which is an enforceable milestone under the FFACO, is due to NDEP by August 31, 2012.

CAU 562, Waste Systems

CAU 562 consists of 13 CASs, including items such as septic tanks, drains, and outfalls. Closure activities at CAU 562 were completed in April when the excavations in Area 2 were backfilled. The final Closure Report, which is an enforceable milestone under the FFACO, is due to NDEP by August 31, 2012.

CAU 566, EMAD Compound

CAU 566, the Engine Maintenance, Assembly, and Disassembly (EMAD) Compound, consists of a single CAU comprising the compound surrounding the EMAD building. CAU 566 was closed under the FFACO in August 2011. In February, one box of mixed waste lead soil and shot remaining from CAU 566 closure activities was transported off site for treatment. The waste was treated in April and is expected to be shipped back to the NNSS and disposed at Area 5 in May.

Non- Resource Conservation Recovery Act (RCRA) Post-Closure Monitoring Sites

The Non-RCRA Post-Closure Monitoring Sites include 119 CASs in 59 CAUs where post-closure monitoring and maintenance is performed in accordance with the closure requirements. Post-closure monitoring at these sites is required annually and is conducted in

October, November, and December. Inspections were completed in December, and repairs were required at a total of 37 sites. Required repairs include re-hanging or replacing signs, tightening fencing, and replacing posts. These repairs began in January and will continue through approximately June. The post-closure letter report documenting calendar year 2011 repairs and inspections will be submitted to NDEP in May.

RCRA Post-Closure Monitoring Sites

The RCRA Post-Closure Monitoring Sites include six CAUs where post-closure monitoring and maintenance is performed in accordance with the RCRA Permit and closure requirements. Post-closure monitoring at these CAUs is required either quarterly or semi-annually. In April, sign repairs at CAUs 92 and 110 identified during the March inspections were completed; wave barriers at CAU 92 were removed; and subsidence at CAU 110 was repaired. The next quarterly/semi-annual inspections will be completed in June.

Soils

CAU 104, Area 7 Yucca Flat Atmospheric Test Sites

CAU 104 comprises 15 CASs related to historical nuclear testing. Field investigation activities to determine the nature and extent of contamination were completed in March; the preliminary sample results are expected in May.

CAU 105, Area 2 Yucca Flat Atmospheric Test Sites

CAU 105 comprises five CASs related to historical nuclear testing. The development of the Data Quality Objectives (DQOs) for CAU 105 continued with the April 30th DQO meeting. The DQO process is a seven-step approach to plan investigation activities ensuring the data collected will provide sufficient information to recommend corrective actions for CAU 105. The DQOs will be included in the Corrective Action Investigation Plan (CAIP) for CAU 105, which is an enforceable milestone under the FFACO, and due to NDEP by October 9, 2012.

CAU 366, Area 11 Plutonium Valley Dispersion Sites

CAU 366 comprises six CASs related to historical nuclear testing. In April, the development of corrective action alternatives continued; development of the CADD will continue in May.

CAU 367, Area 10 Sedan, Ess and Uncle Unit Craters

CAU 367 comprises four CASs related to historical nuclear testing. CAU 367 was closed under the FFACO in July 2011. In February, one drum of mixed waste batteries and soils remaining from CAU 367 closure activities was transported off site for treatment. The waste was treated in April and is expected to be shipped back to the NNSS and disposed at Area 5 in May.

CAU 375, Area 30 Buggy Unit Craters

CAU 375 comprises three CASs related to historical nuclear testing. CAU 375 was closed under the FFACO in September 2011. In February, one macroencapsulation box of mixed waste remaining from CAU 375 closure activities was transported off site for treatment. The waste was treated in April and is expected to be shipped back to the NNSS and disposed at Area 5 in May.

CAU 465, Hydronuclear

CAU 465 comprises four CASs related to historical nuclear testing. In April, walkdowns and utility surveys were performed in anticipation of the removal and disposal of lead-contaminated soil, chromium-contaminated concrete, and lead plates in May. Closure activities are expected to be completed in May.

CAU 550, Smoky Contamination Area

CAU 550 comprises 19 CASs related to historical nuclear testing. In April, cultural resource surveys at CAU 550 were conducted.

CAU 568, Area 3 Plutonium Dispersion Sites

CAU 568 comprises six CASs related to historical nuclear testing. Preliminary investigations at CAU 568 will begin in May.

CAU 569, Area 3 Yucca Flat Atmospheric Test Sites

CAU 569 comprises nine CASs related to historical nuclear testing. Field investigation of these sites will consist of soil sampling and thermoluminescent dosimeter (TLD) measurements. The corrective action investigation of CAU 569 began in April with the TLD placement; investigation activities will continue in May.

CAU 570, Area 9 Yucca Flat Atmospheric Test Sites

CAU 570 comprises six CASs related to historical nuclear testing. The development of the DQOs for CAU 570 continued with the DQO meeting held April 30th. The DQO process is a seven-step approach to plan investigation activities ensuring the data collected will provide sufficient information to recommend corrective actions for CAU 570. The DQOs will be included in the CAIP for CAU 570, which is an enforceable milestone under the FFACO, and is due to NDEP by September 21, 2012.

CAU 571, Area 9 Yucca Flat Plutonium Dispersion Sites

CAU 571 comprises five CASs related to historical nuclear testing. Preliminary investigations at CAU 571 began in April and will continue in May.

CAU 574, Neptune

CAU 574 comprises two CASs related to historical nuclear testing. The final Closure Report, which is an enforceable milestone under the FFACO, is due to NDEP by May 31, 2012.

Public Involvement:

- Ongoing exhibits:
 - *Operation Clean Desert* – Nevada Public Reading Room, Las Vegas
 - *Groundwater at the Nevada National Security Site* poster – Amargosa Valley Library, Goldfield Library, and Central Nevada Museum
 - Environmental Management kiosks – Paseo Verde Library, Henderson and Pahrump Community Library, Pahrump
- Publications:
 - Environmental Management (EM) News Flash: *NNSS Nuclear Testing Artifacts Become Part of U.S. Cultural Archive*

- *Operation Clean Desert* Activity Book Volume 4
- Outreach:
 - Distributed 300 *Operation Clean Desert* activity books and CDs at Nevada Public Reading Room, Las Vegas
 - Distributed 100 Environmental Management/Careers information sheet during the West Career and Technical Academy College Fair
- Support:
 - West Career and Technical Academy College Fair (April 6)