U.S. ARMY CHEMICAL MATERIALS ACTIVITY

# MONTHLY UPDATE

WWW.CMA.ARMY.MIL

## DESERET CHEMICAL DEPOT | Nov. 20, 2012

## Project aims to improve habitat integrity

As part of Deseret Chemical Depot's (DCD's) commitment to environmental stewardship, a new project will soon be underway to improve the depot's sagebrush habitat, making it less vulnerable to natural and manmade disturbances.

A healthy sagebrush habitat should have 15-25 percent canopy cover of sagebrush with an undergrowth of grasses and forbs; however, the depot's sagebrush habitat is mostly sagebrush with little to no undergrowth. When the sagebrush cover becomes too dense, it serves as fuel to carry high-temperature fires through the area. These type of fires burn extra hot, making it difficult to control and causing devastating damage to the environment.

*The chain harrow pictured above will be used at Deseret Chemical Depot to remove sagebrush from designated areas. An anchor chain is attached to a bar with swivels and as it is pulled, the heavy cross bars rip the sagebrush from the ground. (Tooele County photo)*

"The idea is to push the ecological system back to the optimal percentage of shrubs, grasses and forbs," explains Boyd White, DCD natural resource manager. "This treatment will help the land become more resilient to disturbance and less vulnerable to erosion."

With help from the Division of Wildlife Resources (DWR), several areas on the depot have been flagged, creating polygon-like shapes in which sage brush will be removed. The purpose of the polygon shape is to create a mosaic design similar to what fire would leave behind. The curved edges will provide wildlife with natural cover from predators.

An anchor chain harrow will be used to help clear the sage brush from the designated areas. When the chain is pulled, it rotates and the heavy cross bars pull the sage brush out of the ground, White explained. For optimal sagebrush removal, a two way chaining process will be used. First, a bull dozer will pull the chain in one direction to begin sagebrush removal. Then a hydraulic broadcast seeder will be used to distribute a special seed mixture designed to quickly establish grass cover in a sagebrush steppe habitat. The chain will then be pulled in the opposite direction to further remove sagebrush while covering the seed with soil so it can germinate.

"This type of habitat project generally takes about three years to see the full results," White further explained. "In the end, the concentration of sagebrush will be low enough that it will not carry fire very well, allowing greater control of such a situation. In addition, the area will be protected from erosion by the established root systems of the perennial grasses—the wind and rain will have little effect on it."

## ATLIC secondary waste operations conclude

Earlier this month, Area 10 Liquid Incinerator (ATLIC) workers completed their secondary waste support operations and are now in full closure mode.

Located in Deseret Chemical Depot's (DCD's) storage area, the ATLIC was originally built to destroy DCD's small stockpile of GA nerve and Lewisite (L) blister agents. However, before closure operations got underway, officials decided to utilize the facility's controlled and monitored environment to further augment secondary waste operations.

"Since the ATLIC was already equipped with GA and Lewisite monitoring capabilities, it made sense for us to assist in treating DCD's legacy waste that was contaminated with GA and Lewisite agents," explained Jim Wilcox, URS Area 10 closure project

(See ATLIC on page 2)

**PUBLIC AFFAIRS:**

**Alaine Grieser**
Phone: (435) 833-4295
*alaine.s.grieser.civ@mail.mil*

**OUTREACH OFFICE:**

**Amy Blauser**
Phone: (435) 882-3773
*ablauser@qwestoffice.net*

**SYSTEMS CONTRACTOR:**

**Mark Mesesan**
Phone: (435) 882-5888
*mmesesan@urs.com*

**Tooele Chemical Stockpile Outreach Office**
54 S. Main St.
Tooele, UT 84074
Phone: (435) 882-3773
Toll Free: (800) 471-1617

**Outreach Office Hours:**
**8:30 a.m. - 5:00 p.m.**
**Monday - Friday**
*(Additional hours available upon request)*

## ATLIC

*(continued from front page)*

manager. "They [DCD] had a little over 15,000 pounds of solid and liquid wastes to be treated and we were confident that we could complete it."

Following the GA/L secondary waste processing, ATLIC workers were asked to help sample and consolidate another 32 containers, consisting of mustard blister and GB (sarin) nerve agent liquid lab waste. These containers ranged in size from around five to 15 gallons.

The solid and liquid wastes were handled in similar ways—liquid wastes were sampled and consolidated, while the solid waste would first be soaked in a decontamination solution and drained prior to sampling and consolidation.

Consolidation of the solid waste involved combining the contents of smaller containers into one larger container until the container was full (at no time were any incompatible wastes mixed together). Samples of the combined container would be taken, and if the sampling results were less than the Waste Control Limit (WCL), the container was ready for shipment to a permitted hazardous waste treatment facility. However, if sampling results were above the WCL, the waste in the consolidated container would be divided between two containers, re-treated in fresh decontamination solution and resampled. This process would be repeated until the wastes monitored below the WCL.

"We have completed all of the secondary waste support operations," Wilcox stated. "We are now focused on decommissioning the ATLIC and preparing it for demolition. So far, we have cleaned the toxic area tanks, cleaned and removed the agent piping and we're in the process of removing the exhaust duct from the Pollution Abatement System and isolating the Heating, Ventilation and Air Conditioning (HVAC) duct from the gloves boxes."

The next step for the ATLIC closure will be to remove the liquid incinerator refractory bricks, clean remaining duct work (which may require additional treatment, pending sampling results to determine arsenic levels) and perform Unventilated Monitoring Testing (UMT) in toxic areas to ensure that the facility is safe for demolition. It is anticipated that the UMT work will begin in February and closure operations will finish by August 2013.

*J.T. Thorpe workers—a sub-contractor to URS, who normally perform refractory brick work at the Tooele Chemical Agent Disposal Facility (TOCDF)—finished removing some of the facility's Liquid Incinerator (LIC) refractory bricks. Due to higher levels of chromium oxide found in some of the LIC bricks, the bricks needed to be removed to help simplify the demolition process.*

*(right) A J.T. Thorpe worker removes a brick from the LIC exhaust duct and tosses it into a waste bin. The bricks will be sent a permitted hazardous waste facility for disposal. The photos below show a before and partially complete shot of the LIC's secondary chambers brick removal.*

### PUBLIC AFFAIRS:

**Alaine Grieser**
Phone: (435) 833-4295
*alaine.s.grieser.civ@mail.mil*

### OUTREACH OFFICE:

**Amy Blauser**
Phone: (435) 882-3773
*ablauser@qwestoffice.net*

### SYSTEMS CONTRACTOR:

**Mark Mesesan**
Phone: (435) 882-5888
*mmesesan@urs.com*

**Tooele Chemical Stockpile Outreach Office**
54 S. Main St.
Tooele, UT 84074
Phone: (435) 882-3773
Toll Free: (800) 471-1617

**Outreach Office Hours:**
**8:30 a.m. - 5:00 p.m.**
**Monday - Friday**
*(Additional hours available upon request)*

## Environmental remediation update

Deseret Chemical Depot's Solid Waste Management Unit (SWMU) cleanup efforts are progressing well. The depot's SWMU sites were formally used to dispose of or treat hazardous waste and are currently being remediated to leave the lands as clean as possible.

Some of the SWMUs contain Munitions of Explosive Concern (MEC); these MECs are being detonated onsite, either in place or at a designated detonation area. The surface cleanup and detonations will continue for the next year.

So far, 14 out of 29 SWMU sites have been remediated, leaving 15 to finish up. Following is a list of the remaining SWMUs, including the status of cleanup:

*Environmental cleanup contractor, Shaw Group, Inc., provides before and after photos of the surface remediation work they have completed on Solid Waste Management Unit (SWMU) 1. This shows one of the many piles scattered with debris, including scrap metal, ash piles and munition shells that they are responsible for cleaning up.*

**SWMUs 1 and 25 (most heavily contaminated areas)**

- **Scope:** SWMU 1 consists of more than 330 acres and SWMU 25 has more than 1,200 acres; both requiring surface cleanup, including ash piles, scattered metal debris, cluster and incendiary bombs, and more than 59,000 empty 4.2 inch mortar shells .
- **Status:** Environmental contractor, Shaw Group, Inc. is responsible for these sites. Currently, they have recovered more than 1.9 million pounds of recyclable metal, more than 77,300 MEC and about 3,600 of the MECs have been destroyed. Thus far, air monitoring and/or soil and waste samples reveal that no chemical agent has been detected.

**SWMU 2**

- **Scope:** Consists of about 10 acres and was formerly a gravel pit that was used as a munitions burial site.
- **Status:** Environmental contractor, UXB/Kemron is responsible for remediation efforts. Remedial work will consist of soil sampling and a geophysical survey to help detect buried items, including a variety of munitions such as hand grenades, blasting caps, incendiary bombs clusters, M2 ignition cartridges, TNT blocks, smokes pots and possibly mustard chemical agent. All surface debris and buried items will be removed.

**SWMU 3**

- **Scope:** Consists of three acres that were used as a disposal pit and maintenance area for chemical munitions.
- **Status:** Environmental contractor, CH2M Hill is responsible for remediation. A geophysical survey soil sampling has been conducted and the field work, which consisted of excavating empty drums, is nearly complete. Results of the soil samples will determine if any further remediation needs to take place.

**SWMU 15**

- **Scope:** This SWMU site was previously used as an old demolition pit and combat training range.
- **Status:** Environmental Contractor, Innovative Technical Solutions, Inc. (ITSI) is responsible for remediation. Remedial investigations, including soil sampling and a geophysical survey have been completed and surface cleanup is expected to be complete before the end of November.

**SWMU 26**

- **Scope:** This SWMU site was formerly used as a sanitary landfill for routine installation trash.
- **Status:** ITSI is responsible for remediation of this site as well. Remediation investigations include conducting soil sampling, a geophysical survey and investigative trenching. Geophysics work is expected to begin before the end of November and remediation work should be completed by the end of December.

**SWMU 29**

- **Scope:** This SWMU site was previously used as a scrap metal landfill.
- **Status:** Environmental contractor, TerranearPMC is responsible for remediation activities. Remedial investigative work needs to be conducted to determine the nature and extent of contamination. Soil sampling and a geophysical survey will be performed to obtain these details.

**SWMU 31**

- **Scope:** This SWMU site was used as an open burn/open detonation range.
- **Status:** Environmental contractor, CH2M Hill is responsible for remediation, which consists of cleaning the surface of MEC, soil sampling, a geophysical survey and groundwater hydro-punch and sampling. Remediation is expected to be complete by the end of December.

**SWMU 37**

- **Scope:** This SWMU site consists of slag piles that were created from burning incendiary bombs, which have caused heavy metals contamination.
- **Status:** Environmental contractor, North Wind is responsible for remediation efforts, which will include removing the slag piles and then conducting soil sampling to determine if additional remediation is needed.

### PUBLIC AFFAIRS:

**Alaine Grieser**
Phone: (435) 833-4295
*alaine.s.grieser.civ@mail.mil*

### OUTREACH OFFICE:

**Amy Blauser**
Phone: (435) 882-3773
*ablauser@qwestoffice.net*

### SYSTEMS CONTRACTOR:

**Mark Mesesan**
Phone: (435) 882-5888
*mmesesan@urs.com*

**Tooele Chemical Stockpile Outreach Office**
54 S. Main St.
Tooele, UT 84074
Phone: (435) 882-3773
Toll Free: (800) 471-1617

**Outreach Office Hours:**
**8:30 a.m. - 5:00 p.m.**
**Monday - Friday**
*(Additional hours available upon request)*