



U.S. ARMY CHEMICAL MATERIALS AGENCY

MONTHLY UPDATE

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ATLIC begins final agent campaign

Lewisite operations underway

December 19 marked a significant milestone as workers at Deseret Chemical Depot's (DCD) Area 10 Liquid Incinerator (ATLIC) began the last agent campaign—destruction of DCD's small stockpile of lewisite blister agent, the only such stockpile in the United States.

"This is a major accomplishment," said Tooele Chemical Agent Disposal Facility (TOCDF) Site Project Manager Ted Ryba. "With the startup of the lewisite campaign, we are starting the last scheduled new agent campaign for all baseline sites"

The first lewisite bulk containers were delivered to the ATLIC and placed inside specially designed glove boxes, which were sealed tight. Using the protective gloves secured to the glove box enclosures, workers safely drained the agent from the containers.

Unlike the GA nerve agent, which was fed directly to the liquid incinerator, the lewisite agent is first sent to a holding tank where it can be properly sampled prior to being fed to the liquid incinerator. This added step is required because lewisite is known to contain heavy metals.

Because the lewisite containers will contain metals in the residual heel, nitric acid will be used to adequately clean the interior of the empty bulk containers and destroy any remaining lewisite. A water rinse process is then applied to the containers; the rinse is repeated three or more times to ensure the containers meet the decontamination standards set by the facility's operating permit.

The empty, decontaminated containers are then returned to a storage igloo until they are processed through the TOCDF's Metal Parts Furnace and ultimately sent to a permitted, off-site treatment facility for final disposition.

ATLIC lewisite agent operations will gradually ramp up in preparation for emissions testing, which is required by the facility's operating permit. Results from the emissions testing will be provided to both the Utah Division of Solid and Hazardous Waste and Department of Air Quality for final approval.

The ATLIC is now neck to neck with the TOCDF as both facilities are in the home stretch to completing destruction operations. Both facilities are expected to wrap up operations in late January 2012.



Workers outside the Area 10 Liquid Incinerator at Deseret Chemical Depot (DCD) transport the first lewisite-filled bulk container to the facility for destruction. DCD's small stockpile of lewisite is the only such stockpile in the country. It is expected to be completely destroyed by late January 2012.

Wrapping up mustard operations

Tooele Chemical Agent Disposal Facility (TOCDF) workers are in the final stages of the mustard agent destruction campaign as they work to destroy the depot's remaining stockpile of 155mm projectiles—the last of the mustard munitions. Although the 4.2-inch mustard mortars followed a similar process, the 155mm projectiles have presented additional processing challenges and have taken creative problem-solving and careful planning to develop viable solutions.

During the many years of storage, the mustard agent fill inside the 155mm projectiles has degraded, thickening and solidifying, requiring the use of specially designed cutting machines to assist in removing the explosive burster. To further the problem, some projectiles contain agent that has become so hardened that the burster and burster well are stuck in place.

A new torque adapter tool exerts additional force to loosen the burster well. However, if the agent has hardened too much, the burster well can break. In this case, the munition is inverted and a new washout system sprays warm water into the munition to soften the agent so that the burster well and burster can both be removed.

"Thirty-nine projectiles have been processed through the new washout system, and it has performed well," said Rod Chaney, URS Cutter Project Manager. "The spray removes or softens the agent enough that the burster well and burster fall out during washout or slide out after

(See TOCDF MUSTARD OPERATIONS on page 3)

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Holiday spirit: a time to pay it forward

The holiday season is upon us and DCD, TOCDF and CAMDS employees continue to carry on their traditional holiday giving efforts. Every year, all of the employees come together to help those who are less fortunate by donating toys, clothing and food, hoping to spread the holiday spirit.

TOCDF and CAMDS field office employees kicked off the holiday season mid-year with a Christmas in summer food drive and another one during the holidays, to help stock the empty shelves at the Tooele County Food Bank. The field office employees ended up donating a total of 1,543 pounds of food, surpassing their goal of 1,400 pounds.

DCD employees arranged their food drive into a friendly competition of red versus blue—University of Utah vs. Brigham Young University. They made two food drops to the Tooele County Food Bank. The donations in November for Thanksgiving put U of U competitors in the lead with 206 pounds donated and 96 pounds donated by BYU contenders. The second food drop in December resulted in 22 pounds from the red team and 32 pounds from the blue team, making red fans the winner of their competi-



TOCDF Site Project Manager Ted Ryba and two Tooele County Food Bank workers pose by a mountain of boxes filled with non-perishable food items that were collected by the TOCDF and CAMDS Field Office employees.

tion. However, their combined, year-end donation was 351 pounds of food, making those in need the real winners. Along with the food drive, DCD is also following its annual tradition of collecting toys for the Marine Toys for Tots Foundation.

(See HOLIDAY SPIRIT on page 3)

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2011 — A year worth looking back on

2011 was a busy year for Team Deseret, chock full of accomplishments bringing the Tooele Chemical Agent Disposal Facility (TOCDF) one step closer to completely eliminating Deseret Chemical Depot's (DCD) stockpile. Here are a few highlights of 2011:

- **January 11** — Workers at the TOCDF reach and surpass 11,111,111 consecutive man-hours without a lost workday injury.
- **February 24** — The last entry in the highest level of protective clothing is made at CAMDS. The remainder of closure-related work is performed in a lower level of dress.
- **March** — Components of the Detonation of Ammunition in a Vacuum Integrated Chamber (DAVINCH) arrive at DCD's Area 10 storage yard. The DAVINCH is an explosive destruction technology that may assist with the overpacked 155 millimeter mustard projectile disposal campaign.
- **March 3** — DCD workers reach and surpass one million safe man-hours worked without a lost workday injury. The achievement sets a new record for DCD and all of the U.S. Army's chem demil storage sites.
- **March 26** — The TOCDF medical clinic receives the American College of Occupational and Environmental Medicine's 2011 Corporate Health Achievement Award.
- **May 11** — DCD transports the last two mustard-agent filled bulk containers from storage to the TOCDF for disposal. More than 24,000 safe ONC deliveries were made since August 21, 1996, when the first ONC loaded with GB rockets was delivered.
- **May 15** — TOCDF workers reach and surpass 12 million consecutive hours worked without a lost workday injury.
- **May 16** — The last of nearly 6,400 mustard agent-filled bulk containers is destroyed at the TOCDF.
- **May 16** — TOCDF maintenance technician "Ironman Dan" Aldrich performs his 1400th DPE (Demilitarization Protective Ensemble) entry, a number that leads every U.S. chem demil site.
- **May 31** — The 161,000 pound Explosive Containment Cubicle (ECC) is removed from the Chemical Agent Munitions Disposal System (CAMDS) and is transported to the Army's Edgewood Chemical Biological Center in Maryland.
- **July 26** — The National Safety Council awards the TOCDF the 2011 Industry Leader Award, recognizing outstanding safety performance.
- **August 18** — TOCDF earns an independent certification for its Environmental Management System, which is aimed at minimizing waste and maximizing recycling and conservation.
- **August 20** — The last Unventilated Monitoring Test (UMT) is successfully performed at CAMDS. Nine CAMDS facilities underwent a UMT, clearing the way for demolition of the former test and development facility.
- **September** — It is announced DCD will once again become Tooele Army Depot South Area, as it was previously known from 1962 to 1996. The official transfer of authority will take place in July 2013 during an official "casing of the colors" ceremony, marking the end of DCD's command.
- **September 29 - October 14** — DCD's stockpile of overpacked 4.2-inch mustard mortars is destroyed at the TOCDF utilizing a specially-designed cutting machine that assisted with the removal of the explosive components.
- **September 30** — TOCDF workers reach and surpass 13 million consecutive man-hours worked without a lost workday injury.
- **October 26** — Five hundred least chub are released into a pond on DCD in an effort to keep the native fish off the endangered species list. The translocation is the first time a Department of Defense installation has harbored a threatened fish species.
- **October 31 - November 10** — DCD's stockpile of GA bulk containers is destroyed at the Area 10 Liquid Incinerator (ATLIC). It represents the disposal of DCD's entire nerve agent stockpile, as well as the first chemical disposal operations to take place at the ATLIC.
- **November 14** — Disposal of overpacked 155 millimeter mustard projectiles starts at the TOCDF. The same cutting machines that helped process overpacked 4.2 inch mustard mortars are used along with additional equipment to help remove the explosive components from the rounds, many of which have solidified chemical agent, making processing more difficult than usual.
- **December** — Seventy DCD igloos are cleaned and successfully monitored to ensure chemical agent contamination, if any, is below safety limits. All 208 of DCD's igloos will be cleaned and monitored before being handed over to Tooele Army Depot in July 2013.



Continuing DCD's annual tradition, Master Sgt. Eric Ryals and DCD Commander Col. Mark Pomeroy present a collection of toys to fellow soldiers representing the Marine Toys for Tots Foundation.

Holiday spirit

(continued from front page)

But that's not all, TOCDF employees employed three fundraising initiatives to support those that are less fortunate. They collected food, clothes and toys for the Community Action Programs for several counties in Utah, stuffed stockings with various supplies for soldiers stationed in Afghanistan, and another collection of gently used items were donated to "The Mission" in Salt Lake City. Their total donations equated to a monetary value of \$17,143, exceeding their goal of \$13,000. In addition, TOCDF members of the National Property Management Association (NPMA) participated in the NPMA Salt Lake Chapter charity project—Warming Hearts and Soles—donating 82 coats, jackets and sweaters, 356 pairs of socks and a handful of baby blankets.

This is the time of year when the need for charity donations increases and thanks to the workers at the depot, more families will be able to better enjoy the holiday season.

TOCDF mustard operations

(continued from front page)

entrants remove the projectile from the cutter. Only one projectile burster well and burster did not come free after multiple washouts, and we were able to successfully dislodge the burster well from the bottom of the projectile using one of our new tools."

Additional solutions to removing the explosives have been tested, such as a pry bar and hot water soaks. However, these options have not been as effective and have proven to be more labor intensive and time consuming for employees.

With less than 100 projectiles remaining to cut for disposal, mustard operations are expected to be complete in January 2012.



A worker with B.W. Line Construction & Engineering of Orem, Utah, cuts power to the Chemical Agent Munitions Disposal System (CAMDS) site. Only the CAMDS laboratory, which will continue to support CAMDS closure efforts as well as monitoring and sampling activities for the Area 10 Liquid Incinerator, will continue to be operational along with employee offices. The obsolete power lines had to be disconnected and removed before demolition can start in early 2012.



(from left) DCD Commander, Col. Mark Pomeroy, DCD environmental scientist Boyd White and DCD Environmental Program Manager Troy Johnson are all smiles while proudly displaying an honorary plaque from the Utah Division of Wildlife Resources. The Division's Department of Natural Resources recently presented the plaque to DCD for providing a habitat for least chub. Five hundred of the native Utah fish were placed in a DCD pond in October in an effort to help protect the sensitive species.



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