

REACH



Umatilla Chemical Disposal Outreach Office

Spring 2002

Safety First: Moving Chemical Weapons from Depot to Facility

Many factors contribute to moving chemical weapons safely from their storage “igloos” to the Umatilla Chemical Agent Disposal Facility.

“The work crews’ extensive training and experience and how the weapons are packed for shipping contribute to safety,” said Lt. Col. Fred Pellessier, the Umatilla Chemical Depot’s commanding officer.

Perhaps the community concern most often expressed is that one of the rockets, bombs, land mines, shells or spray tanks may explode and cause an emergency situation. At Umatilla, the large shells known as projectiles have explosive “burster” charges but no fuzes or propellant to activate them. The spray tanks have a small amount of explosives, and land mines have bursters but no propellant. The bombs and bulk storage containers have no explosives whatsoever. This means that these weapons are not configured in a way that would make them likely to explode.

In contrast, the M55 rockets are stored with all explosive components assembled. However, according to Jim Small, an Army quality assurance specialist in ammunition surveillance, “The rockets were designed to be

moved safely by all modes of transportation—rail, highway, air and water—and be handled by troops under field conditions.”

Safety features were designed into the rockets and other weapons to prevent accidental ignition, he said. Further, the rockets are packed securely with steel bands onto wooden pallets.

Construction of the Umatilla Chemical Agent Disposal Facility began in June 1997 and ended in August 2001. When operations begin in 2003, the weapons will take their final ride in style—a trip to the disposal plant in air-tight containers designed to withstand impacts, fire and leaks. These “on-site containers” are similar to those the nuclear industry has used for years.

Umatilla Chemical Disposal Outreach Office
190 East Main Street
Hermiston, OR 97838
(541) 564-9339

Outreach Office Hours
Monday–Friday
8:30 a.m.–5 p.m.
Other hours by appointment

Outreach Office Staff
Steve Meyers
Allison Cornett
Kathy Eldrige



Special containers known as “on-site containers” will be used to transport chemical weapons from the storage depot to the disposal facility.

On-Site Containers Safely Transport Chemical Weapons

Since beginning operations on Aug. 22, 1996, Deseret Chemical Depot workers in Utah have used the containers to move more than 900,000 weapons and bulk containers safely.

The Umatilla Chemical Agent Disposal Facility received its first four on-site containers two years ago and used them to begin training and to help “systemize” or test the facility’s Container Handling Building. Eventually, 40 such containers will be delivered to Umatilla.

When operations begin, Umatilla Chemical Depot crews will move weapons to the disposal plant using the sealed containers. Doug Barnett, a depot chemical weapons handler, said the loading procedure will involve forklifts, a fleet of trucks and multiple crews. “Our main function will be to get the munitions to the plant safely and make sure we keep the plant supplied,” Barnett said.

The weapons are stored on pallets in enclosed structures called igloos. Crews will strap the ammunition down and use a special, larger forklift with prongs that are eight feet long to load the tray into the on-site container.

Crews will use tractor-trailer trucks to move the containers. They will travel to the plant’s Container Handling Building, where an overhead crane will remove the container from the trailer.

Crews will move ammunition only during the day, even though the plant will operate around the clock. The depot plans to more than double its crew to handle the weapons movements. “Depot employees have an average of 13 years experience in moving chemical weapons,” Barnett said.

At all times, ammunition handling, movement and disposal will be conducted within a secured, guarded area. To minimize the distance for moving ammunition, the Army built the disposal plant alongside the storage compound.

The containers have demonstrated their worth at the Army’s first chemical weapons disposal plant in the continental United States. Since beginning operations on Aug. 22, 1996, Deseret Chemical Depot workers in Utah have used the containers to move more than 900,000 weapons and bulk containers safely.

Umatilla will use a new version of the 18,500-pound containers that has a bigger door with more reinforcement. The original containers used swing bolts that were manually opened and closed, while Umatilla’s have a hydraulically operated locking ring door closure, which takes less time to secure.

The Johnston Atoll Chemical Agent Disposal System southwest of Hawaii, which processed its final ammunition in November 2000, did not have any special challenges with moving chemical weapons. No on-site containers were used at Johnston Atoll because no civilian populations live nearby. The M55 rockets traveled in a special overpack, and other munitions were moved to the disposal plant on cargo trucks.

On-Site Container at a Glance

Length:
142 inches

Height:
102 inches

Empty weight:
18,500 pounds

Maximum filled weight:
26,500 pounds

Materials: Stainless steel, polyurethane foam, ceramic-fiber insulation blankets

Cost: \$175,000

Design and testing: Sandia National Laboratories, Albuquerque, N.M.

Thermal test: Subjected to jet fuel fire

Drop test: Dropped 10 feet on both ends

Crush test: Subjected to compressive load of 50,000 pounds for 24 hours to check for deformity

Puncture test: 40-inch drop on 5-inch diameter metal spike

Leak test: Performed before and after destructive testing to check for leak rate





Twenty-Five Percent of U.S. Chemical Stockpile Destroyed

The U.S. Army Program Manager for Chemical Demilitarization recently announced that Utah's remaining stockpile of GB (Sarin) nerve agent was eliminated safely. Tooele Chemical Agent Disposal Facility (TOCDF) workers now are preparing to destroy VX nerve agent.

"This is a significant milestone for chemical weapons disposal. Forty-four percent of the Utah stockpile is eliminated and more than 25 percent of the nation's entire chemical weapons stockpile is destroyed," said James Bacon, program manager for chemical demilitarization. In November 2000, the Army's Johnston Atoll facility in the Pacific Ocean completed safe destruction of its chemical stockpile.

TOCDF workers destroyed the GB stockpile first because continued storage posed the greatest threat to the community. GB agent has a consistency similar to water and is more likely to vaporize than other agent types. The original GB stockpile, which was stored safely at Desert Chemical Depot in Utah, consisted of 928,906 rockets, bombs, projectiles and bulk containers. The depot stored the Army's largest stockpile of GB

agent, more than 12 million pounds. This was twice the amount of GB stored at the nine other U.S. stockpile sites combined.

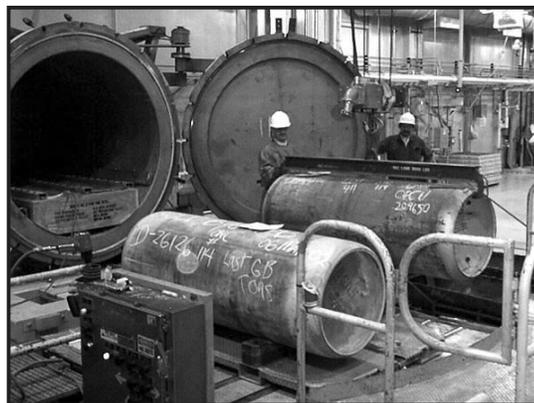
Now, the facility equipment will be decontaminated, and international treaty inspectors will certify official completion of the GB agent destruction campaign.

"We are sharing lessons learned during TOCDF's GB destruction campaign with our other chemical weapons disposal facilities to ensure continued safety and environmental stewardship," said Bacon.

The Anniston Chemical Agent Disposal Facility, located in Alabama, is conducting tests in preparation for destroying its stockpile, which includes rockets filled with GB agent. The Umatilla Chemical Agent Disposal Facility, located in Oregon, also is undergoing tests to demonstrate that the facility is prepared for disposal operations to begin next year. Construction is nearly complete on Arkansas' Pine Bluff Chemical Agent Disposal Facility. Technology decisions for the Colorado and Kentucky facilities are expected later this year. And, the Maryland and Indiana facilities are investigating technologies for disposal of bulk chemical agent.

"This is a significant milestone for chemical weapons disposal. Forty-four percent of the Utah stockpile is eliminated and more than 25 percent of the nation's entire chemical weapons stockpile is destroyed."

*— James Bacon,
program manager
for chemical
demilitarization*



The last GB bulk container being unloaded in the Unpack Area of the TOCDF.

REACH



We Want to Hear From You...

The Umatilla Chemical Disposal Outreach Office serves as a clearinghouse of information about the chemical weapons stockpile stored at Umatilla Chemical Depot and the Army's plans for chemical weapons disposal. The outreach office has informational materials that can address your questions or concerns.

If you would like more information about the Umatilla Chemical Disposal Outreach Office, please telephone (541) 564-9339 or complete this form and mail it to:

Umatilla Chemical Disposal
Outreach Office
190 East Main Street
Hermiston, OR 97838

Would you like to be added to our mailing list?

Yes No

Would you like an information packet mailed to you?

Yes No

If you answered yes to either of these questions, please complete the following:

Name: _____

Address: _____

City/State/Zip: _____

Phone (optional): _____

E-mail (optional): _____

The outreach office schedules speaking presentations that can be given to large or small community groups, clubs, organizations, etc. If you know of a community group that might be interested, please complete the following:

Name: _____

Address: _____

City/State/Zip: _____

Phone (optional): _____

E-mail (optional): _____



Umatilla Chemical Disposal
Outreach Office
190 East Main Street
Hermiston, OR 97838