

State of Oregon
Department of Environmental Quality

Memorandum

Date: Jan. 23, 2012

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda item B, Informational item: Umatilla Chemical Demilitarization Program status update
Feb. 16-17, 2012, EQC meeting

Purpose of item This item will inform the commission about permitting activities, and project status at the Umatilla Chemical Agent Disposal Facility as of Jan. 5, 2012.

Program news **Agent processing at the Umatilla Chemical Agent Disposal Facility completed**
The Umatilla facility destroyed the last agent-filled munitions in its stockpile Oct. 25, 2011. The facility is now treating agent-contaminated secondary wastes and continues closure activities.

The Umatilla Chemical Depot closed as a chemical weapons convention storage and demilitarization site well before the April 2012 International Treaty deadline. The Organization for the Prohibition of Chemical Weapons inspected the Umatilla Chemical Depot Dec. 5 and 6, 2011. The inspection confirmed completion of all treaty verification activities.

HD (Mustard) operations

The mustard agent campaign began June 4, 2009. There were 2,635 mustard ton containers in the original stockpile, which is one percent of all facility munitions and bulk containers and 63 percent of the original stockpile. The facility treated the last mustard container, which was also the final item from the stockpile, Oct. 25, 2011.

GB (Sarin) operations

The facility completed sarin munitions and bulk items processing in July 2007, which comprised 21.4 percent of the total Umatilla stockpile by agent weight. The facility destroyed 155,539 munitions and bulk containers filled with 2,028,020 pounds of sarin nerve agent, which was 70.5 percent of all Umatilla munitions and bulk containers and 21.4 percent of the original Umatilla stockpile. The only remaining sarin-related waste is used filter-system carbon.

VX operations

The facility completed VX munitions processing Nov. 5, 2008, which comprised 9.8 percent of the total Umatilla stockpile by agent weight. The facility destroyed 14,519 VX rockets and warheads, one VX ton container, 156 VX spray tanks, 32,313 155mm VX projectiles, 3,752 eight-inch VX projectiles, and 11,685 VX mines filled with over 720,000 pounds of agent. Except for carbon, the facility has treated all VX-related wastes.

Facility closure

DEQ issued the draft permit for the closure plan Oct. 25, 2011. Based on preliminary discussions with U.S. Environmental Protection Agency Region 10, DEQ extended the comment period to

Jan.19, 2012. The facility is rewriting the closure plan based on EPA and DEQ comments and feedback. DEQ is working with the facility, EPA, the Confederated Tribes of the Umatilla Indian Reservation and stakeholders to address comments and concerns during the editing and eventual submittal of the modified closure plan.

The metal parts furnace processed almost nonstop during ton container processing, which limited the availability of the furnace to process agent-contaminated secondary wastes. Therefore, during the mustard campaign, the Army stored agent-contaminated wastes in containers and transported them to J-Block permitted storage. With the completion of the mustard ton container processing, the facility has begun transporting the secondary wastes from J-Block to the facility for treatment. It is also treating agent-contaminated secondary wastes generated during closure activities.

As of Jan. 5, 2012, the facility has treated 365 trays with 111,867 pounds of secondary agent-contaminated wastes in the metal parts furnace, and 224,806 pounds of spent decontamination solution in the liquid incinerators.

**Umatilla
Chemical
Agent
Disposal
Facility
RCRA
permitting
activity**

Sept. 15, 2011, through Jan. 5, 2012

Permit modifications received		
#	Title	Received
11-017	Agent-Free Extraction and Analytical Methods for Carbon ¹	09/29/11
11-016	Closure Analytical Methods ¹	10/06/11
11-019	Agent-Free Extraction and Analytical Methods for Carbon (resubmittal of #11-017)	10/27/11
11-023	Update to Contingency Plan Emergency Coordinator List ²	11/09/11
11-010	Permitted Secondary Waste Storage ²	11/21/11
11-021	Administrative Update to SOP UM-0000-M-600 90-Minute Requirements ²	11/23/11
11-002	Shipment of Agent-Contaminated Secondary Waste to a Commercial Treatment, Storage, and Disposal Facility	11/30/11
11-022	Closure Analytical Methods (resubmittal of #11-016)	12/07/11
11-024	Administrative Update to the Contingency Plan	12/08/11

¹ Also withdrawn by the UMCDF this reporting period

² Also accepted or approved by the DEQ this reporting period

Permit modification request approvals or acceptances by DEQ			
#	Title	Received	Decision
11-019	Agent-Free Extraction and Analytical Methods for Carbon	10/27/11	11/04/11
11-023	Update to Contingency Plan Emergency Coordinator List	11/09/11	11/10/11
11-010	Permitted Secondary Waste Storage	11/21/11	12/16/11
11-021	Administrative Update to SOP UM-0000-M-600 90-Minute Requirements	11/23/11	12/09/11
Permit modification request withdrawals			
#	Title	Received	Decision
11-016	Closure Analytical Methods (resubmitted as #11-022)	10/06/11	10/27/11
11-017	Agent-Free Extraction and Analytical Methods for Carbon (resubmitted as #11-019)	09/29/11	10/18/11

IN PROCESS				
The following permit modification requests are under DEQ review				
#	Title	Received	Public comment period closes	Target decision/ review date
Requests				
09-006	Amend Closure Plan	09/25/09	11/24/09 ¹ 05/16/11 ² 01/19/12 ³	02/15/12
11-002	Shipment of Agent-Contaminated Secondary Waste to a Commercial Treatment, Storage, and Disposal Facility	11/30/11	02/06/12	03/29/12
11-022	Closure Analytical Methods	12/07/11	02/06/12	03/06/12
Notices				
11-024	Administrative Update to the Contingency Plan	12/08/11	N/A	02/06/12
¹ Initial (permittee) public comment period. ² 2 nd permittee public comment period due to significant changes ³ DEQ (draft permit) public comment period.				

**Umatilla
Chemical
Depot
RCRA
permitting
activity**

Sept. 15, 2011, through Jan. 5, 2012

IN PROCESS				
The following permit modification requests are under DEQ review				
#	Title	Received	Public comment period closes	Target decision/ review date
Requests				
11-003	Incorporate Inclusion of Laboratory Analytical Procedures and Reporting Limit Refinement	12/08/11	02/13/12	03/07/12

**Significant
events at
other
facilities**

The Army has eliminated 89.5 percent of the national stockpile as of Dec. 18, 2011.

Tooele Chemical Agent Disposal Facility, Utah

The Tooele facility has destroyed 99.9 percent of its original stockpile tonnage. The mustard disposal campaign ran from August 2006- May 2011. The facility is now treating 155mm mustard-filled projectiles. Mustard has thickened and solidified in the projectiles, as it did in the ton containers. The facility is using a new torque adapter tool to loosen the hardened parts so the munitions can be cleaned and treated.

The facility completed treatment of small stockpiles of Tabun nerve agent at its Area 10 liquid incinerator, and treating Lewisite blister agent bulk containers Dec. 19, 2011 in the same incinerator. The Tooele facility test emissions to verify compliance with emissions limits during Lewisite treatment operations. Several hundred over-packed "leaker" munitions and 47 Deseret Chemical Depot mustard agent samples also remain at Toole. Due to the delays is readying the

DAVINCH detonation chamber, the Tooele facility incinerators were restarted. The Tooele facility will use parallel processing with both the incinerators and the DAVINCH system operating to meet its schedule of completion by late January 2012. As of Dec. 20, 2011, the facility had treated about half of the over packed projectiles.

Anniston Chemical Agent Disposal Facility, Alabama

The Anniston facility completed treatment of its chemical weapons stockpile Sept. 22, 2011 and is now closing.

Pine Bluff Chemical Agent Disposal Facility, Arkansas

The Pine Bluff facility completed chemical treatment operations Nov. 12, 2010, and has begun closure operations. Destruction of the Pine Bluff facility began March 28, 2011. Decontamination and dismantling of the facility and equipment should last approximately two years.

Newport Chemical Agent Disposal Facility, Indiana

Newport was the third site to complete agent disposal operations, following Johnston Atoll Chemical Agent Disposal System in 2000 and Aberdeen Chemical Agent Disposal Facility in 2006. Closure has been completed. The Chemical Materials Agency transferred the property to the Department of the Army Base Realignment and Closure July 18, 2010.

Blue Grass Chemical Agent Destruction Pilot Plant, Kentucky

The Blue Grass facility destroyed its 524-ton stockpile of nerve and mustard agents through neutralization followed by supercritical water oxidation.. The facility has neutralized three sarin ton containers, known as Operation Swift Solution, representing 0.2 percent of the stockpile. Construction continues and the facility is scheduled to begin chemical agent operations in 2018, to be completed by 2023.

The facility is testing to determine if the filtration system for Blue Grass igloos provides safe storage and working conditions, and also protects public health and the environment. Like Newport, all hydrolysates will be treated onsite. When treatment is complete, the facilities will shut down. Temporary structures and equipment will be shipped to Aberdeen Proving Grounds.

The Army is using enhanced on-site containers, known as EONCs for safely transporting chemical weapons from storage to the treatment facility. The Blue Grass facility obtained EONCs from the Pine Bluff and Anniston facility. Reuse of EONCs saved millions of dollars.

Pueblo Chemical Agent Destruction Pilot Plant, Colorado

The Pueblo facility destroyed its 2,611-ton mustard agent stockpile of artillery and mortar projectiles through neutralization followed by biotreatment. Most facility buildings are up, and medical and laboratory facilities secured and are being readied for start up. Facility construction is scheduled for completion by March 2012, with startup targeted in early 2015. All secondary wastes will be processed onsite.

The Pueblo facility is preparing an application to the state of Colorado to renew its Resource Conservation and Recovery Act permit.