

State of Oregon  
Department of Environmental Quality

Memorandum

**Date:** Nov. 23, 2011  
**To:** Environmental Quality Commission  
**From:** Joni Hammond, Deputy Director  
**Subject:** Agenda item B, Informational item: Umatilla Chemical Demilitarization Program status update  
Dec. 15-16, 2011, EQC meeting

**Purpose of item** This item will inform the commission about program updates and project status at the Umatilla Chemical Agent Disposal Facility.

**Program news** **Agent processing complete at the Umatilla Chemical Agent Disposal Facility**  
At 9:17 a.m. on Oct. 25, 2011, the facility treated the last mustard agent-filled ton container. This completed the destruction of agent-filled munitions and bulk items that were stored at the depot since 1961, nearly 50 years ago.

The agent treatment operations started by the Umatilla facility in September 2004 were completed in just over seven years – well before the April 29, 2012, Chemical Weapons Convention international treaty deadline. During that time, the facility destroyed nearly 7.4 million pounds of chemical agent stored in 220,600 munitions in 11 different configurations.

To address the greatest risk to human health and the environment, the facility processed the chemicals by order of volatility beginning with liquid GB nerve agent in rockets, followed by GB bombs and projectiles, and VX nerve agent-filled munitions. HD mustard ton containers were treated last. The nearly 4.7 million pounds of mustard blister agent, stored in 2,635-ton containers, comprised more than half of the depot's stockpile by weight.

The Umatilla facility will now transition to treating the secondary wastes in permitted storage and closing and dismantling the plant. The Army will flush residue from the plant and decontaminate the equipment. Workers will destroy the contaminated materials in the metal parts furnace, until the furnace is the last remaining unit.

Facility staff will sample areas within the treatment facility buildings exposed to agent and in the soils to ensure the facility is cleaned up to meet the clean-closure criteria. The munitions demilitarization building and its heating, ventilation, and air conditioning system will be torn down. Uncontaminated support buildings will remain standing for future reuse.

The rest of the depot will be cleaned up and closed. The facility used more than 800 of the 1,001 storage igloos at the depot for conventional munitions. Facility staff swept, vacuumed, and sampled these igloos before they were locked and sealed. Staff

are cleaning the remaining igloos that held chemical weapons or agent-contaminated wastes, and are monitoring the air inside for chemical agent.

The Army plans to leave the depot buildings and igloos standing for possible reuse, and is continuing environmental cleanup work started in the late 1980s on the 20,000-acre depot. At the west end of the depot, the ammunition demolition area still has buried munitions that need to be removed. The depot also has ground water contamination from explosives, including TNT, near the former bomb washout plant. A system to pump up the water, clean it, and inject it back into the ground has cleaned the groundwater near the former plant to industrial standards. To get to residential groundwater standards -- even though that use is not planned at the depot -- the Army has added a bioremediation project that includes injecting corn syrup underground to feed microbes to clean up the contamination.

**Future reuse of the depot**

Some of the 20,000 acres of the depot are planned for industrial redevelopment and use. The local land reuse authority created a plan that calls for about 7,400 acres, including the firing range and the area used for ammunition demolition, to be turned over to the Oregon National Guard. The Guard plans to start moving into some buildings in February 2012.

The next largest portion, 5,600 acres, will be left as a wildlife refuge to preserve some of the best shrub steppe habitat left in the Columbia Basin. The area includes nesting areas for two species of concern, the long-billed curlew and the burrowing owl. A nesting program has increased the burrowing owl population from four nesting pairs in 2008 to 61 pairs in 2011.

About 650 acres will be used for agriculture and has been leased for farming as part of a land-use swap with the City of Irrigon. Under the swap, the city can convert an area within the city for industrial use.

The remaining land, some in Morrow County and some in Umatilla County, is designated for industrial use, including land near the center of the depot where the incineration plant now stands. The site may be attractive to industry because it has a power substation and gas pipelines. In addition, land at the intersection of Interstates 82 and 84 with two interstate off-ramps is planned for industrial development. It is the only area outside Portland, Oregon, where two interstates intersect.

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