



State of Oregon
Department of
Environmental
Quality

Umatilla Chemical Demilitarization Program

Status Report

June 2005

UMCDF Resumes M55 Rocket Processing

HERMISTON- The Department of Environmental Quality (DEQ) gave its approval for the Umatilla Chemical Agent Disposal Facility (UMCDF) to resume M55 rocket processing on Thursday, June 9, 2005.

DEQ officials had halted the facility's destruction of GB (sarin) filled M55 rockets on May 18 when the third in a series of fires occurred in the explosive containment rooms at UMCDF during the rocket chopping process.

On April 7, April 23, and May 18, 2005, as a robotic shear blade cut through rocket sections containing propellant, low-order explosions occurred, subsequently igniting propellant contained in the rocket body. All three of the rockets involved in the series of incidents are now believed to contain propellant from a single lot produced in October 1962.

The similarity of the fires and their occurrence in a relatively short period of time prompted DEQ officials to halt rocket processing at the plant until an in-depth investigation could be completed. "The first fire was maybe an isolated event, the second one could have been coincidence, the third fire was clearly a pattern, and may be an indication there will be

further incidents," said Dennis Murphey, DEQ Chemical Demilitarization Program Administrator. "We were seeing fires occurring at a rate no one had anticipated."

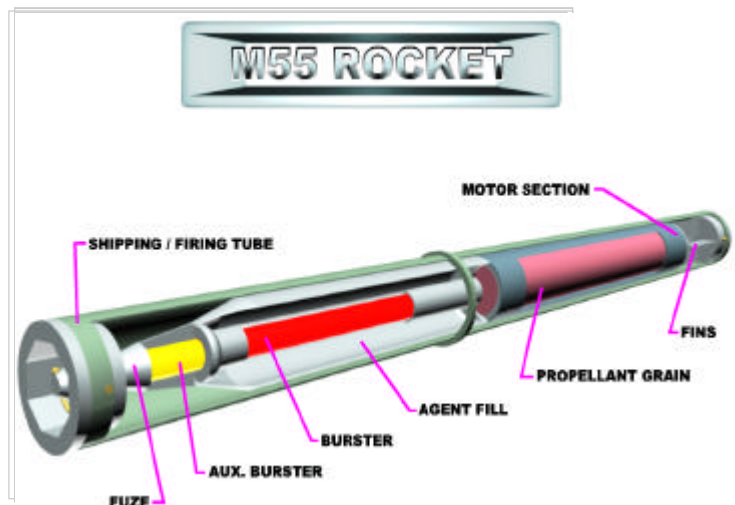
The Army and Washington Demilitarization Company (WDC), the project contractor, had been conducting their own "root cause analysis" throughout the six week period that the fires took place, but no exact cause had been discovered.

Facility managers had also made several modifications designed to lessen the damage from future fires, including increased fire suppression sprays on the rocket shear machine. The modified system appeared to help suppress the flames in approximately three seconds during the May 18 fire, in contrast to April fires which blazed intensely for more than a minute.

Following the third event, DEQ halted operations and more directly involved its staff in the review process, focusing on three main areas:

1. The safety of the facility in case of future fires
2. The investigation into the cause of the fires
3. The identification of actions already taken or under consideration by UMCDF to reduce the frequency of future fires or mitigate their consequences.

An Army Rocket Task Force



created to respond to the fires determined that the Explosive Containment Rooms (ECRs) have maintained their structural integrity and are capable of containing explosions and repeated incidents such as the rocket fires. The duct system, blast valves, isolation valves and filters associated with the ECRs should also remain fully functional.

Propellant from nine rockets at Umatilla have been removed and sent to an Army lab in New Jersey for testing. UMCDF staff further investigated the cause of the fires and provided DEQ with written documentation of their subsequent findings as well as a "resumption plan" outlining procedures to be implemented prior to future restarts if additional fires should occur.

The Department carefully

reviewed the documents and approved the restart of chemical operations prior to the receipt of the propellant analysis, which may take several weeks to complete.

"The Army and its contractor, Washington Demilitarization Company, have provided all of the requested materials to DEQ in a timely manner and based upon our review, we are satisfied that UMCDF is prepared to safely resume the destruction of M55 rockets containing chemical agent," said Dennis Murphey, DEQ Chemical Demilitarization Program Administrator. UMCDF resumed rocket processing on the afternoon of June 9th.

Similar rocket fires have also occurred at the Anniston, Alabama and Pine Bluff, Arkansas facilities.

Permit Modification Requests

Class 2 PMR UMCDF-05-017-WAP(2)

Proposes to establish "agent-free" concentrations for chemical agents VX and HD based on the results of Method Detection Limit (MDL) studies completed by UMCDF in October 2003. Waste residues from the various incinerators must be determined to be agent free before they can be shipped offsite to a hazardous waste disposal facility. Agent free levels will vary depending on the type of waste matrix (i.e. solids, liquids, etc.). Agent free concentrations for chemical agent GB were previously approved in December 2001 as part of Class 2 PMR UMCDF-01-017-WAST(2). DEQ is currently reviewing this PMR, which is open for public comment until June 27, 2005.

Class 2 PMR UMCD-05-001-MISC(2)

Proposes to update the entire UMCD hazardous waste storage permit and permit application documentation to reflect the significant changes that occurred during DEQ's application and review process. This PMR was required by Condition II.P of the UMCD hazardous waste storage permit due to the extensive period of time that passed between receipt of the final permit application materials and issuance of the final, approved hazardous waste storage permit. DEQ is currently reviewing this PMR, which is open for public comment until August 6, 2005. [***NOTE: This is the first PMR received by the DEQ for the recently issued HW Storage Permit for the Umatilla Chemical Depot, which is a separate permit from the one issued to govern operation of UMCDF.]

Class 1 PMR UMCDF-05-020-LIC(1R)

Proposed that up to 300 additional shakedown hours for the Liquid Incinerator 1 (LIC1) be allowed to complete preparations for the GB agent trial burn. The HW Permit and RCRA regulations provide 720 hours to complete the shakedown process, but also allow DEQ to grant up to an additional 720 hours when there is good reason. DEQ approved this PMR on May 12.

Class 2 PMR UMCDF-05-009-HVC(2)

Proposes to delete all requirements related to changing out the first two banks of carbon in the Munitions Demilitarization Building (MDB) ventilation system carbon filter unit(s) based on the detection of chemical agent downstream of the first carbon bank. Currently, the first two banks must be replaced within three months of detecting agent downstream of the first bank at a concentration above the short term exposure limit(STEL). The public comment period closed on May 31, and DEQ is currently reviewing this PMR.



EQC
Member
Malarkey
Resigns

Deirdre Malarkey will relinquish her seat on the Oregon Environmental Quality Commission (EQC) effective June 30, 2005

Malarkey was appointed to the EQC by the governor in 1999. Presently a resident of Eugene, she plans a summer move to Washington State in order to be closer to her immediate family.

Malarkey has a longtime interest in environmental issues, she is a graduate of Reed college, and also holds graduate degrees from the University of Oregon.

She retired as a land use planner, and has served on two state natural resource boards and on the Water Resources Commission in addition to her tenure on the EQC.

What's happening at other facilities around the country

ABERDEEN, MD - This neutralization facility began operation in April, 2003 and completed the destruction of the entire stock of mustard agent ~~housed there on March 11, 2005~~. The steel containers that held the agent continue to be cleaned of residual agent solids, cut in half and decontaminated at Aberdeen's Ton Container Cleanout Facility. These operations are scheduled for completion next winter. The entire facility will then enter a closure phase in which plant equipment is decontaminated and dismantled.

ANNISTON, AL - The Anniston facility has destroyed more than 66,000 GB weapons since it began incineration in August, 2003. The destruction of all of the M55 GB filled rockets, 8 inch GB filled projectiles, and GB 155 mm projectiles stored there has been completed. The facility is scheduled to complete the disposal of the remaining GB 105mm projectiles by year's end.

BLUE GRASS, KY - Recent rocket fires at facilities in Oregon and Arkansas have prompted reassessment of current plans for M55 rocket destruction at this, the smallest of America's eight remaining chemical weapons stockpile sites. Although Blue Grass will use neutralization as its destruction method, its current design calls for the same type of rocket shear equipment presently in use at the Umatilla and Pine Bluff facilities. Design teams are re-evaluating the shearing process before final designs are accepted.

NEWPORT, IN - Chemical agent destruction began at this neutralization facility on May 5 despite opposition from elected state officials in Delaware and New Jersey concerning plans to ship secondary waste generated in Newport to a commercial wastewater treatment plant in New Jersey. Wastewater (hydrolysate) from the treatment of VX agent is presently being stored on site. Decontamination of the original agent storage containers is scheduled to begin later in June.

PINE BLUFF, AR - This facility is the fourth incineration site in the continental United States to begin operation. Incineration began at this facility on March 29, 2005 with the destruction of GB-filled M55 rockets. A fire occurred during the rocket shearing process at this facility on May 11. Public concern was heightened in the area because public notification of the fire was delayed for nearly a week. On May 18 the plant was shutdown for two days after the third fire at the Umatilla site was announced. A second rocket fire occurred at Pine Bluff on May 22 and an unrelated fire also destroyed a warehouse containing conventional munitions on the arsenal grounds on June 6.

PUEBLO, CO - This site houses 8.3% of the national stockpile and will use neutralization technology to destroy the mustard agent weapons stored there. It is presently in the design stage.

TOOELE, UT - The Tooele Chemical Agent Disposal Facility (TOCDF) completed destruction of the last of more than 22,600 VX nerve agent filled land mines, marking the elimination of all VX nerve agent stockpiled at the Deseret Chemical Depot(DCD). Preparations are under way to begin processing VX hydrolysate and a small amount of GA (tabun) nerve agent. The plant will then be decontaminated and prepared for processing the remainder of the DCD stockpile, comprised of nearly 125,00 mustard agent filled munitions.

Need more information?

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DEQ Item Number: 05-1162