U.S. Army Element, Assembled Chemical Weapons Alternatives

Quick Facts: Technical Analyses of Off-Site Treatment of Hydrolysate and Secondary Wastes

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Overview

In September 2007, the Program Manager Assembled Chemical Weapons Alternatives (ACWA) program asked Noblis and the National Research Council to conduct two separate, independent technical analyses.

Noblis (formerly Mitretek Systems) will study the option of off-site treatment of hydrolysate. In addition, the National Research Council will examine requirements concerning the treatment, storage, handling and shipping of both chemical agent and non-chemical agent related secondary waste. Consistent with ACWA's commitment to meaningful public involvement, both initiatives will incorporate stakeholder feedback.

ACWA initiated these efforts in light of the new life cycle cost and schedule estimates codified in the April 2007 Acquisition Program Baseline; Department of Defense direction to continue to explore cost savings opportunities; pending congressional legislation regarding plans for accelerating the program schedule; and newly available data regarding off-site treatment of hydrolysate.

Taken together, the reports will identify specific options to ensure cost and schedule efficiency as ACWA moves forward in its mission to destroy the chemical weapons stockpile at the Pueblo Chemical Depot in Colorado and the Blue Grass Army Depot in Kentucky.

Noblis Off-Site Treatment of Hydrolysate Analysis

Previous off-site hydrolysate treatment studies* – notably the 2006 Mitretek analysis and Lean Six Sigma assessment – were based on data developed prior to the definitive cost and schedule estimates established for the program by the April 2007 Acquisition Program Baseline. With this more realistic life-cycle information now available, Noblis and ACWA can assess more accurately the potential cost and schedule savings provided by the off-site treatment option.

What is Noblis?

Noblis is "a nonprofit science, technology and strategy organization that helps clients solve complex systems, process and infrastructure problems."

http://www.noblis.org/

The 2006 studies also centered primarily on political and regulatory risks. The Noblis analysis will help ACWA identify and balance other types of risks such as those associated with the complexities of actually building and operating on-site hydrolysate treatment facilities. These risks will be assessed in the context of ACWA's updated cost and schedule estimates.

Noblis is expected to complete its analysis in 2008.

National Research Council (NRC) Secondary Waste Analysis

The National Research Council recently completed a review of chemical agent secondary waste and regulatory requirements for the U.S. Army Chemical Materials Agency (CMA)* which contained useful information, but covered only the five CMA sites. PMACWA has asked the NRC to conduct a companion analysis that will build on its earlier work, but with a specific focus on PMACWA's Colorado and Kentucky sites.

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The NRC analysis will closely examine federal and state environmental, regulatory and permit requirements as they apply specifically to ACWA's Colorado and Kentucky facilities, as well as recommending procedures and techniques to address both regulatory and community concerns.

The NRC will complete its analysis in 2008.

What is the NRC?

The NRC is part of the National Academies, "private, nonprofit institutions that provide science, technology and health policy advice under a congressional charter."

http://www.nationalacademies.org/nrc/

Conclusion

Decisions regarding secondary waste treatment and whether to ship hydrolysate off site will not be decided solely by the results of these analyses. In fact, planning and budgeting for on-site hydrolysate treatment at both the Kentucky and Colorado sites continues in order to provide a full set of safe destruction options to Defense Department decision-makers.

The Department of Defense directed ACWA to continue to explore off-site treatment of hydrolysate as long as it remains an economically viable option that does not compromise safety or the environment. These analyses are PMACWA's response to that direction. They will be among several resources that Department of Defense decision-makers will use to further examine hydrolysate and secondary waste treatment options.

***Full Titles of Referenced Documents**

"Analysis of Off-Site Treatment of Hydrolysates from Chemical Agent-Destruction Pilot Plants," Mitretek Technical Report 2006-22, dated December 2006.

"Hydrolysate Shipment Analysis for Pueblo and Blue Grass Pilot Plants – A Lean Six Sigma Assessment," dated November 2006.

"Review of Chemical Agent Secondary Waste Disposal and Regulatory Requirements," National Research Council, Board on Army Science and Technology, dated July 26, 2007.

All documents can be found on the PMACWA Web site at http://www.pmacwa.army.mil/ip/reports.htm.