

## ACWA PROGRAM Update

This is the 27th update, in a series of updates, provided by PMACWA to enable the Dialogue to stay abreast of the latest information regarding the many activities currently underway.

### ENGINEERING DESIGN STUDY (EDS I)

#### EDS I Testing -

Parsons/Honeywell. All 85 of the HD mortars have been processed through the Projectile Washout System. The system has been very successful in washing out the heels present in the munitions. No visible mustard remains after 60 to 90 seconds of washing. All of the HD munition bodies have been run through a metal parts treater to thermally decontaminate them. HT mortars (85) will be tested in October. PMACWA is providing information on the Projectile Washout System to PMCD for potential future use. Continuous Steam Treater (CST) testing has been completed after running both wood dunnage and demilitarization protective ensemble (DPE) suit material through the system. The CST has been disassembled for post test inspection. The analytical data is currently being gathered and analyzed.

General Atomics. The 500-hour GB hydrolysate and GB hydrolysate simulant supercritical water oxidation run has been successfully completed. As with the previous three 500-hour runs, this run was conducted with a titanium liner instead of the originally proposed platinum liner. Corrosion was a little more prevalent with this feed, but can be run for 66 hours at this scale before a liner change is needed. Additional testing of VX hydrolysate simulant is being conducted. This is an addition to the original test plan. This work is being coordinated with the Program Manager for Alternative Technologies & Approaches (PM ATA) to share resources and benefit both the ACWA and Newport programs.

### ENGINEERING DESIGN STUDY (EDS II)

#### EDS II Testing -

AEA Technology. Initially, AEA Technology had experienced some delays during systemization of the 12kW system at Aberdeen Proving Ground due to mechanical/ physical plant problems (i.e., cracked catholyte vessel, anolyte

pump seal, power outages, etc). Testing of the 12kW system has been initiated with the successful destruction of DNT (an energetic simulant) and the energetic combination of Comp B and M28. The DMMP (an agent simulant) run is scheduled for early October. Several laboratory scale studies are being conducted concurrently. The testing of a hydrocyclone, high shear mixer, and silver recovery in these studies has been completed. The organic transfer test has successfully shown the destruction of DNT, Comp B and Comp B/M28 mixture. The cell membrane life test has accumulated 2064 hours of operation and continues.

Eco Logic. The Gas Phase Chemical Reduction (GPCR) Analytical Methods Development and the Explosivity, Elastomers, and Metallurgy Trade Studies have been completed. The M28 Propellant Grinding System has also been successfully completed, as the propellant was successfully size-reduced.

Foster Wheeler. Modifications to the Demonstration II SCWO system have been completed and systemization was initiated. However, it was determined that the oxygen/nitrogen system (provided by the test facility and their contractors) needs further modification in order to provide the necessary oxygen/nitrogen throughput to the SCWO. This has resulted in significant delays to the test program. Concurrent to these modifications, Foster Wheeler continues to conduct systemization on the Transpiring Wall SCWO. The long term Operability Testing (500-hour runs) is now expected to begin in mid October and last until February.

Engineering Design Packages (Blue Grass) -

- The Initial Engineering Design Package (EDP) was received from the three Blue Grass Technology Providers: AEA Technology/CH2MHill, Eco Logic/Foster Wheeler, and General Atomics, on June 29, 2001.
- PMACWA conducted a Design Review with each of the technology providers. In addition, a separate meeting was conducted where the Technology Providers made a presentation to the independent evaluators including the National Research Council (NRC), Mitretek, and the Army Materiel Systems Analysis Activity (AMSAA). Many questions and issues were discussed and resolved.
- The Draft EDP was received from the three Blue Grass Technology Providers: AEA Technology/CH2MHill, Eco Logic/Foster Wheeler, and General

Atomics, on September 28, 2001. Another set of Design Presentations with the independent evaluators and Design Reviews with PMACWA is scheduled for late October and mid November.

- The Final EDP is due on December 14, 2001.

#### Acquisition/Piloting Activities

##### Colorado -

\* A Colorado Environmental Working Integrated Product Team (WIPT) meeting has not been held since the last update. Meeting minutes for previous WIPT meetings are available at the Colorado Environmental WIPT web site at: <http://www.cdphe.state.co.us/hm/PCDWIPT.asp>. The next meeting is scheduled for October 30 in Pueblo, Colorado and will be open to the public.

\* Work is ongoing to modify the Request for Proposals (RFP) for Pueblo from the A/B approach to a systems contractor approach and incorporate performance-based specifications.

##### Kentucky -

\* A Kentucky Environmental WIPT meeting took place on July 31, 2001 in Richmond, KY. Items discussed included: National Environmental Policy Act update; Defense Acquisition Board update; and Resource Conservation and Recovery Act, Air, and Toxic Substances Control Act permitting. The next meeting is scheduled for October 23. The meeting will be conducted via video teleconference and will be open to the public.

\* Representatives from PMACWA attended the August and September Citizens Advisory Commission (CAC) meetings to discuss technology schedules and maturities respectively. A public information guide was distributed at the September meeting for distribution to the general public. This guide will also be distributed at any future meetings addressing the stockpile destruction where the public is in attendance.

#### ENVIRONMENTAL ACTIVITIES

##### National Environmental Policy Act/Draft Environmental Impact Statement -

\* The comment period for the ACWA Program Draft Environmental Impact Statement (DEIS) ended on 9 August. The DEIS examines the potential impacts

of the design, construction, and operation of one or more pilot test facilities for assembled chemical weapons destruction technologies at one or more chemical weapons stockpile sites.

\* PMACWA received approximately 974 comments on the DEIS. Comments are now being reviewed and will be addressed in the Final EIS.

\* The Final EIS is scheduled for publication in December 2001.

#### Resource Conservation and Recovery Act and Clean Air Act Permits -

Development of Resource Conservation and Recovery Act (RCRA) and Clean Air Act (CAA) permit applications for the Chemical Agent Pilot Plant in Pueblo is on-going. Mitretek Systems is developing an input/output model to be used at all sites for the projection of effluent and emission characterizations. These characterizations of effluents use demonstration and engineering design studies test data and mass/energy balance to predict the outputs of each ACWA technology at each site. These effluent characterizations are a further refinement of previous output predictions. The output predictions will be the common database used in the RCRA and CAA permit applications and the Health Risk Assessments.

#### Agricultural Assessment Work Plan -

PMACWA and PMCD are preparing an Agricultural Assessment Work Plan (AAWP) to satisfy Pueblo County's Certificate of Designation requirements. The purpose of the AAWP is to outline the process for assessing the impact, if any, to the agriculture and the environment surrounding Pueblo Chemical Depot before, during and after operations of a destruction facility. The Army and the facility operators will implement the final AAWP.

#### DEFENSE ACQUISITION BOARD (DAB) REVIEW

The DAB Review has been split into two phases due to the extended public comment period for the Environmental Impact Statements. The first phase of the Review will address the cost, schedule, and Chemical Weapons Convention (CWC) compliance status of each Chemical Demilitarization program element. The second phase will address the technology selections for Blue Grass and Pueblo.

The first phase of the DAB Review was held on September 6. The cost, schedule, and CWC compliance status of each Chemical Demilitarization

program element, excluding Pueblo and Blue Grass, was presented to Mr. Pete Aldridge, the Defense Acquisition Executive (DAE). The results of this DAB, which are documented in an Acquisition Decision Memorandum (ADM), are available on the login section of the ACWA website at <http://www.pmacwa.org>.

- The second phase of the DAB Review will occur in 2002. The technology decision for Pueblo is tentatively scheduled for January 2002; the technology decision for Blue Grass is tentatively scheduled for June 2002. The future management structure regarding PMACWA will also occur during the January 2002 DAB.

#### NATIONAL RESEARCH COUNCIL

- The National Research Council (NRC) Assembled Chemical Weapons (ACW) Committee released their report, Analysis of Engineering Design Studies for Demilitarization of Assembled Chemical Weapons at Pueblo Chemical Depot, on August 28. The report states that both technologies, neutralization/biotreatment and neutralization/supercritical water oxidation, are highly effective in destroying the chemical agents and the energetic materials found in the munitions. However, the committee had some concerns with some of the secondary treatment steps.

- The National Research Council Chemical Stockpile Committee also released the report, A Modified Baseline Incineration Process for Mustard Projectiles at Pueblo Chemical Depot, on August 28.

- Copies of these reports are available on the National Academies website at <http://www.national-academies.org>.

- The National Research Council Assembled Chemical Weapons Committee will release the report, Evaluation of Demonstration Test Results of Alternative Technologies for Demilitarization of Assembled Chemical Weapons - A Supplemental Review for Demonstration II, on October 12. This report will provide the results of an in-depth review of the data, analyses, and results of the Demonstration II tests.

- Copies of this report will be available on October 12 on the National Academies website at <http://www.national-academies.org>.

11 October 2001

Message to the Dialogue from the CATT (Doug, Irene, Bob, and Paul)

It's been nine months since our last full ACWA Dialogue meeting, so we wanted to send a note to reassure everyone that we continue to participate in regular conference calls with PMACWA, Keystone, and our technical advisors, SBR Technologies, in order to stay on top of ongoing engineering design studies (EDS). SBR, and occasionally one or more of us, also participates in weekly EDS calls to review timely technical matters of the testing program.

In short, the testing by Parsons, Foster-Wheeler, EcoLogic, AEA/CH2M Hill and General Atomics has gone well. Testing has also not been without a few glitches over recent months -- equipment failures, extreme weather in Maryland, lack of feedstocks, and most recently security lockdowns after September 11th. But on the whole, ACWA testing has kept to schedule and we are looking forward to reviewing the results in the coming months.

At the same time, the Defense Acquisition Executive (DAE) review has been ongoing -- since renamed the Defense Acquisition Board (DAB). This process was delayed for several reasons, September 11th amongst them, and has just released its first brief report on schedules and costs which is now on the ACWA website. We would urge all Dialogue members to read this carefully. Note that some OSD/CAIG (Cost Analysis Improvement Group) schedules have now been pushed out to 2011 (Anniston and Umatilla), Pueblo and Blue Grass are listed as "to be determined," and the overall U.S. chem demil program cost is projected in the press now at \$20-24 billion, some ten times the initial estimates. We also want to point out that the DAB will continue to meet and plans on making technology recommendations for Pueblo in January 2002 and Blue Grass in July 2002. We may also see some recommendations in January on chem demil reorganization. To date there has been no public involvement in the DAE/DAB, although we have contacted the key players and urged them to develop a plan for public input.

Right now, PMACWA is planning the next Dialogue meeting in February 2002 when full details will be available on this year's testing and a technology

decision from the DAB may be available on Pueblo. We may have an all-Dialogue conference call before then. Also, PMCD is holding its annual "Environmental Forum" on October 16-17 in Atlanta at the Sheraton Gateway Airport Hotel. This is open to the public, so all Dialogue members are welcome to attend. In the meantime, please feel free to contact any of us below with questions, concerns, and recommendations.

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