



## The Keystone Center

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### Memorandum

To: Dialogue Participants, Alternates, and Staff

From: Keystone Center Staff: Kristi Parker Celico, Janesse Brewer, Sid Cullipher, and Todd Barker

Subject: Dialogue Meeting Summary for March 14-15, 2000

Date: June 28, 2004

#### **Meeting Summary Structure and Deadlines**

The following meeting summary summarizes the discussions from the Dialogue on Assembled Chemical Weapons Assessment (ACWA) meeting, which occurred on March 14-15, 2000 in Portland, Oregon. This summary is comprised of:

- action items agreed to by the Dialogue at the meeting;
- an overview of topics addressed in the presentations; and,
- a summary of issues and concerns raised and discussed by the Dialogue.

For ease of reading, the meeting summary is organized by topic and is not necessarily chronological. Slides of presentations made at the meeting are available upon request by contacting Horne Engineering at 1-888-482-4312.

**ACTION ITEM:** A supplemental ACWA Dialogue meeting is scheduled for March 30-31, 2000 to clarify the Scope of the ACWA Environmental Impact Statement (EIS), discuss the analytical assumptions of the EIS, and determine the best strategy for public involvement during the acquisition and piloting process. Responsible Entities: The Keystone Center, ACWA, and Horne Engineering. Timeline: Meeting Dates are March 30-31, 2000.

**ACTION ITEM:** Dialogue members will provide DoD Public Involvement team with input on public involvement strategy and documents. Responsible Entities: Send input and recommendations to Carl Eissner at [carl.eissner@sbccom.apgea.army.mil](mailto:carl.eissner@sbccom.apgea.army.mil) or by telephone (410) 436-7353. Time line: By April 25, 2000.

**ACTION ITEM:** The Public Involvement team will work with Dialogue members at stockpile sites to create materials and presentations for upcoming scoping meetings. Currently those sites are Colorado, Alabama, and Arkansas. Note: since the Dialogue meeting, Kentucky law has been changed and Kentucky will be included as a site for scoping. Responsible Entities: Carl Eissner, Diane Affleck and Lynda Dubrow. Time line: On-going.

**ACTION ITEM:** Provide feedback to the Public Involvement team on the new ACWA Web Site. Responsible Entity: Send feedback to Diane Affleck at [diane.affleck@abcom.apgea.army.mil](mailto:diane.affleck@abcom.apgea.army.mil) or telephone (410) 436-3586. Time line: On-going.

**ACTION ITEM:** PM ACWA will notify Dialogue members when the ACWA and PMCD Environmental Impact Statements' Notices of Intent (NOIs) are published and will make copies available on the Web Site. Responsible Entities: Jon Ware of the ACWA Environmental Team. Time line: They were posted on April 14, 2000.

**ACTION ITEM:** The Keystone Center will circulate draft agenda topics to the Dialogue in advance of the next meeting, Dialogue participants are encouraged to make recommendations regarding agenda items, presentations, speakers, and discussions that would be helpful to the Dialogue in meeting its objectives. Responsible Entities: The Keystone Center Staff. Timeline: A month before the next Dialogue meeting.

**ACTION ITEM:** The CATT will send regular updates to the Dialogue during the Demonstration II and Engineering Design Studies (EDS) testing. Timeline: On-going.

### **SUMMARY OF MEETING**

The meeting summary is not intended to be a verbatim record of discussion, but rather to: provide a summary of the topics briefed and discussed; an overview of any concerns raised; and a record of decisions made. The following areas are outlined in the meeting summary:

- Opening comments by the Program Manager for the Assembled Chemical Weapons Assessment;
- Introduction, discussion and consensus regarding new Dialogue members and alternates;
- Program and funding overview;
- Overview and presentations of EDS for technologies from Demonstration I;
- ACWA Environmental update;
- Briefing and discussion regarding Public Involvement Strategy;
- National Research Council (NRC) update and ACWA response to NRC Supplemental Report;
- Overview and presentations for technologies and major milestones in Demonstration II;
- Planning for Dialogue advisory meeting on NEPA strategy
- Broad Agency Announcement (BAA) update
- Overview of new Dialogue communication system;
- Closing comments.



**Program and Funding Overview**  
**Bill Pehlivanian, Deputy Program Manager**

*Slides are available for Bill Pehlivanian's presentation. If you would like a copy of these slides, please request Attachment A from Horne Engineering at 1-888-482-4312.*

The program overview focused upon the Demonstration II testing mirroring Demonstration I and the EDS process laying the groundwork for piloting. The funding overview stressed the lessons learned from Demonstration I and examined the breakout of funding across Demonstration II, EDS, and acquisition and piloting activities.

*Question regarding schedule:* In response to a question regarding possible ACWA schedule delay, Pehlivanian emphasized that this is the original schedule for this stage of the Program, and that he believes it is achievable.

*Question regarding two-tiered Demonstration and EDS process:* In response to a question about the scheduling of Demonstration and EDS activities, Pehlivanian responded that separate legislation dictates these two processes. PL 105-261 dictates that the successful technologies demonstrated by the ACWA Program (the successfully demonstrated technologies thus far are those offered by General Atomics and Parsons Honeywell) be further developed and tested by the ACWA Program. Thus, until the technologies in Demonstration II are successfully demonstrated, they cannot be considered for further development. Pehlivanian anticipates that if technologies are successfully demonstrated in Demonstration II, then they will be considered for a future EDS effort by Congress.

*Question regarding funding levels and the potential for cost over-runs.* Pehlivanian confirmed that the current budget does not allow for cost over-runs and that the ACWA Program, like many Research and Development Programs, has experienced over-runs in the past. Additionally, Pehlivanian stated that he has briefed pertinent Hill staffers regarding this issue.

**Overview and Presentations of Engineering Design Studies for Technologies from Demonstration I**

**Scott Susman, ACWA; Irene Kornelly, CATT; Paul Walker, CATT; Jack Scott, Parsons Honeywell; Mike Spritzer, General Atomics**

*Slides are available for these presentations. If you would like a copy of these slides, please contact Horne Engineering at 1-888-482-4312.*

The EDS presentations were made up of an overview of the ACWA EDS program strategy, a presentation on the role of the CATT during EDS, and individual presentations by the Technology Providers on the two technologies that successfully completed Demonstration I.

*Explanation of CATT Monitoring Efforts for EDS:* Irene Kornelly and Paul Walker, CATT team members, discussed the CATT's involvement in the planning for EDS and their continued involvement as study and testing expands on Demonstration I results and leads toward permitting and building a pilot facility. They stressed that they are looking at longer term issues,

such as reliability, liability, and systemization. It was pointed out that it will be a challenge for the ACWA staff to simultaneously manage Demonstration II and EDS efforts.

*Concern regarding site-specific focus of EDS study parameters:* It was pointed out by a Dialogue member that a number of EDS study parameters are site-specific to Colorado and Kentucky, thereby appearing to make a decision about pilot siting before the NEPA Record of Decision. Susman stated that in Demonstration I the ACWA Program had originally created fictional sites instead of real sites, but that ultimately the ACWA Program, in consultation with the CATT, agreed it made better sense to use real sites. CO and KY offered the range of munitions and agents found at all sites and therefore data generated by these sites could be applicable to other stockpile sites. Susman stated that ACWA's EDS strategy is consistent with what was done in Demonstration I.

*Question regarding testing of 15 percent mustard hydrolysate:* A Dialogue participant asked if the Technology Providers already know if their technologies can sufficiently treat 15 percent mustard hydrolysate before ACWA tests this in EDS. Susman replied that there has been work on it before, but it has not been tested yet to six nines in the SCWO system. ACWA staff plan to validate this during EDS.

*Questions for Parsons Honeywell:* Jack Scott of Parsons Honeywell responded to questions following his presentation.

*Discussion regarding adding a stand alone reconfiguring step to the demilitarization process:* There were multiple questions about the addition of a stand alone reconfiguring step to the demilitarization process. In response, Scott stated that they did not believe this increased worker risk. It was pointed out by a Dialogue member that 100 percent of leaks at the Pueblo depot were from the fuse well, when the fuses are removed. This could be a problem during reconfiguration. It was suggested that representatives from the Pueblo Depot talk with Parsons Honeywell about their experience with pressure and temperature for chemical weapons washout. Parsons Honeywell and ACWA stated that analysis of reconfiguration will be done during EDS. The reason for wanting to operate reconfiguration separately is to increase flexibility, add multiple shifts, and get a demilitarization plant up and running quickly. In response to a question about the potential for increased risk from additional movement of weapons in the reconfiguration process, Mr. Scott agreed that there is an additional handling step, but emphasized that the explosives have been removed, so risk is not increased.

*Questions for General Atomics:* Mike Spritzer of General Atomics responded to questions following his presentation.

*Question about the effect of gelled mustard on cryofracture:* In regard to the effect of mustard gel on the cryofracture process, he pointed to a significant database from Aberdeen on the removal of gelled mustard from metal parts. In the munitions that are cryofractured, the agent will be separated from metal parts by tumbling during hydrolysis. The metal parts will be returned to ambient temperature following cryofracture through hot water sprays in the rotary hydrolyzer. In the case of rockets, the shearing process seems to work quite well, so cryofracture is not necessary. In that case, energetics are accessed by taking the bursters out in

the Reverse Assembly and the agent through shearing. The bursters will be fed into the process without the need for size reduction.

*Question regarding hard to remove bursters:* In response to a question concerning bursters that can't be removed during disassembly, Spritzer stated that they did not have a good answer for this yet, but they would not propose to put it in the cryofracture since it is not contained.

*Question regarding Brine Reduction AREA:* Mr. Spritzer addressed the issue of the Brine Reduction Area by responding that there were several applicable possibilities, and they would choose the most suitable to the process.

*Discussion regarding flexibility in reverse assembly processes:* Spritzer stated the the Baseline reverse assembly is the best possibility for munitions processing at Kentucky, with its complex mix of munitions and the presence of rockets, while a simpler process is being studied for Colorado. He noted that General Atomics is not alone in looking at a simpler process, PMCD and Parsons Honeywell are also studying this.

*Question regarding SCWO liner corrosion:* Spritzer stated that the problems with corrosion of the SCWO liner are being addressed through the use of platinum. General Atomics is a subcontractor to Parson Honeywell at Newport and the new liner will be going through a great deal of testing there.

*Questions regarding water use and secondary waste:* In response to a question concerning water recycling in the process, Spritzer said that extra water made from the process will be recycled and there should be no discharge from the plant. As for secondary waste issues, Spritzer stated that General Atomics is looking to characterize and determine the final disposition of those wastes.

## **ACWA Environmental Update**

### **Jon Ware, ACWA**

*Slides are available for this presentation. If you would like a copy of these slides, please contact Horne Engineering at 1-888-482-4312.*

The ACWA environmental update gave an overview of the upcoming ACWA National Environmental Policy Act (NEPA) activities. The presentation described the activities mandated by NEPA including: publishing the Notice of Intent (NOI); determining the scope of the Environmental Impact Statement (EIS); holding appropriate public hearings; and writing the draft and final EIS that is input into the ultimate Record of Decision (ROD) by the agency.

*Comments and questions following the slide presentation:* The discussion following the ACWA Environmental update focused upon: the scope of the EIS; the separate and parallel EISs of PMCD and ACWA; the analytical assumptions of the ACWA EIS; and a Dialogue NEPA Scoping meeting.

*Scope of the EIS:* Jon Ware clarified that, as of the Dialogue meeting, Alabama, Arkansas, and Colorado are the sites that must be considered during the NEPA process for piloting an alternative technology. There were a number of questions regarding the sites chosen for possible piloting, and why the other stockpile sites were not. Ware emphasized that this decision is based on a number of legal parameters. He explained that Umatilla and Deseret are currently excluded since the weapons required for demonstration will already be destroyed by incineration according to the current PMCD schedule. Ware said he expects Kentucky to be added to the EIS soon due to a change in the state law (note: as of April 1, 2000, the Kentucky law has been amended and Kentucky will be added to the EIS). Ware emphasized that the Notice of Intent (NOI) is written so both stockpile sites and alternative technologies can be added to the EIS in response to schedule changes and Demonstration II activities. This can happen while the EIS is being conducted or as a supplement to the Record of Decision (ROD). It was also clarified that the scope of the ACWA EIS is in no way connected to a potential decision to retrofit incinerators.

*Concern regarding the No Action option:* A Dialogue participant noted that the “No Action” option within the EIS was equivalent to either choosing incineration or continued storage. This raised the concern that the “No Action” option would then rely upon the PMCD EIS and therefore, a Dialogue member noted, any alternative to PMCD will be compared to PMCD’s own studies and schedules which have historically been unreliable.

*Mixing and Matching:* In response to a question regarding the potential of mixing and matching of technology components for the EIS, Ware stated the EIS is tied by law to the ACWA mission of demonstrating a total solution. Given that, the impact of each unit operation within a total solution will be studied.

*Concern regarding separate and parallel EIS Processes for PMCD and ACWA:* Dialogue participants raised concerns regarding the separate nature of the EIS processes and stressed that it may be confusing to communities. It was also noted that a dual track process may invite litigation. ACWA staff stated that while this bifurcated process was not their first choice, nor PMCD’s, DoD leadership had determined that the separate missions of PMCD and the ACWA Program merited the development of two separate EISs. ACWA’s EIS would focus on the technologies and location for a pilot, PMCD’s EIS would focus on the destruction of weapons for Pueblo.

The discussion moved into the possibility of increasing or in some way changing the scope of the EIS in an open fashion with the full involvement of the Dialogue. ACWA said this was a possibility, but the consequences would be a high probability of schedule delay for the ROD. This would have an effect upon the chances of an ACWA technology being incorporated into the PMCD EIS. The concern about the legal liability of using PMCD schedules to determine which sites go into the ACWA EIS was raised again. It was suggested that ACWA find some means to make independent judgements about PMCD schedules to mitigate legal vulnerabilities. There was another suggestion that some mechanism be created to solicit input from those sites not currently included in the ACWA EIS.

*Concern regarding the potential schedule issues associated with dual EIS tracks:* Dialogue participants expressed concern regarding the potential for EIS schedules to experience delays and, as a result, PMCD might be issued a ROD without pertinent information from the ACWA EIS. ACWA stated that they had every reason to believe that while schedule delays could be experienced by PMCD or ACWA in the EIS process, that RODs for both Programs would be released simultaneously.

*Analytical assumptions of the EIS:* There were a number of questions regarding the analytical assumptions of the ACWA EIS. Questions focused on the issues of cumulative impacts with other technologies and the mechanism by which the assumptions were decided. As a result, it was agreed that a supplemental meeting would be held March 30-31, 2000 to address these concerns.

*Concern regarding the transparency of the process:* Dialogue participants stressed that they will have some difficulty supporting the analytical assumptions, or the EIS process as a whole, without a better grasp of what they mean and how they were decided upon. Participants did feel that the March 30-31 meeting would help to address this problem in part. However, Dialogue members in general supported the concept of moving the EIS process forward as quickly as possible and noted a desire to avoid delays.

*Supplemental Dialogue meeting on NEPA:* The supplemental Dialogue meeting on NEPA took place at Edgewood, MD on March 30, 2000. For a copy of the March 30 meeting summary, please call Horne Engineering at 1-888-482-4312.

### **Briefing and Discussion regarding Public Involvement Strategy**

**Carl Eissner, ACWA**

*Slides are available for this presentation. If you would like a copy of these slides, please contact Horne Engineering at 1-888-482-4312.*

The Public Involvement presentation briefed the Dialogue on the changes in Public Involvement strategy and structure made necessary by the combined ACWA activities. The new ACWA Public Involvement plans for Demonstration II, EDS, and acquisition and piloting were outlined and input on this strategy was solicited.

*Request for input into the Public Involvement strategy:* During the Public Involvement presentation, Carl Eissner emphasized the desire of the Public Involvement Team to get input on the best strategies for conducting the NEPA process at the stockpile sites. It was pointed out by a Dialogue member that the Team needed to be specific on where input could be provided.

*Site Specific Feedback:* Dialogue participants commented on the need for site specific media strategies. ACWA representatives offered to involve the Dialogue in document review and a scoping dry run at applicable sites.

*Other suggestions to the ACWA Public Involvement Team:* A Dialogue member suggested that the ACWA Working Integrated Process Team (WIPT) be more inclusive in its membership.

Another suggested that individuals take advantage of the NEPA/RCRA background material and the Environmental Justice material on the EPA Web Site ([www.epa.gov/epahome/laws.htm](http://www.epa.gov/epahome/laws.htm)). Finally, it was suggested that the Public Involvement documents be three-hole punched so people could put them in notebooks.

**NRC Update and ACWA response to NRC Supplemental Report**  
**Bob Beudet, NRC Committee Chair; Scott Sussman, ACWA**

*Slides are available for this presentation. If you would like a copy of these slides, please contact Horne Engineering at 1-888-482-4312.*

Dr. Beudet presented the Findings and Recommendations from the NRC Supplemental Report that included the data from the ACWA Demonstration I testing. Dr. Beudet was joined by Scott Susman who presented the ACWA approach to addressing those Findings and Recommendations as those technologies moved into EDS.

*Questions regarding the future involvement of the NRC Committee in the ACWA process:* Dr. Beudet responded to questions about the involvement of the NRC Committee in future ACWA activities by stating that the Committee would not likely be involved in the EIS process and would not further consider the mix and match of alternative technologies. In regard to a question about bringing the NRC Committee into the BAA process, Dr. Beudet responded that was a possibility and he would be willing to talk to ACWA about giving input into the technical feasibility of BAA technologies. In response to a question about the ability of the NRC Committee to keep to a tight schedule on tasks, Dr. Beudet said he would need to know the relevant decision points of ACWA and Congress.

**Presentations for Technologies and Major Milestones in Demonstration II**  
**Darren Dalton, ACWA; Bob Palzer, CATT; Doug Hindman, CATT; Al Ahluwalia, Foster Wheeler; Fred Arnold, Eco Logic; Bill Burns, Teledyne Commodore; Terry Graham, AEA Technology**

The Demonstration II presentations were made up of an overview and major milestones of the ACWA Demonstration II program, a presentation on the role of the CATT during Demonstration II, and individual presentations by the Technology Providers on the three total system solution technologies that are included in the testing.

*Slides are available for these presentations. If you would like a copy of these slides, please contact Horne Engineering at 1-888-482-4312.*

*Role of the CATT:* Doug Hindman and Bob Palzer, of the CATT highlighted the more complex schedule for Demonstration II, while emphasizing that experience in Demonstration I with applying the criteria should make this effort run smoother. Palzer emphasized that the CATT Liaison Members and SBR Technologies, can provide oversight for the new Dialogue members and will continue to go to test facilities and ACWA meetings related to Demonstration II.

*Discussion and questions for Foster Wheeler and Eco Logic:* In response to a question about accessing gelled Mustard agent in their reverse assembly process, both Dalton and Fred Arnold of Foster Wheeler agreed that since they cannot manufacture a gelled agent heel, they will have to address that if they go to EDS. In response to a question about whether the demonstration will provide information on gas effluent from the process, Arnold stated information will come from the demonstration and they want to re-use the methane gas that is produced. It will be a batch process and they are looking at the amount of gas generated. Arnold clarified that there is no mixing or stirring of the load in the autoclave.

*Discussion and questions for Teledyne Commodore:* There was a question by a Dialogue member about using M60's and M61's in the demonstration for Teledyne Commodore. Dalton responded that M60's and M61's can get confused with M55's. The M60's and M61's are training rockets that the Army has agreed to destroy to satisfy the Chemical Weapons Convention (CWC). The training rockets will be used to demonstrate the Teledyne Commodore ammonia fluid jet access and washout technology. A Dialogue participant commented that it is important to characterize all waste streams, but also to keep in mind what we know about waste streams in an actual facility. That will be more complex than just monitoring what comes out of a demonstration.

*Discussion and questions for AEA Technology:* In response to a question about whether they have been successful in recycling the silver used in the process, Terry Graham said that recycling was successful in tests performed in England.

### **Broad Agency Announcement (BAA) Update and Discussion**

**Jim Richmond, ACWA**

**BAA Work Group members**

Jim Richmond provided general information about the schedule and funding of the BAA program. The Dialogue was informed that one million dollars has been made available to investigate promising partial solution alternative technologies.

A Dialogue participant suggested that current funding would likely be insufficient for the BAA and that ACWA try to identify additional funds for the BAA. Another participant suggested that ACWA engage PMCD baseline sites in the BAA process to see if there are potential technologies to fill in gaps. Jim Richmond clarified that ACWA has provided BAA information to PMCD and this was being assessed by Stone and Webster. In regard to a question about the role of the NRC in the BAA and to what extent can the NRC be involved as the process moves forward and contracts are awarded, ACWA responded that it would be partly determined by funding.

*Action Item on BAA:* It was decided that Dr. Beudet would participate in a conference call with ACWA, the Dialogue BAA Work Group, and SBR Technologies to respond to questions about the general potential of partial solution alternative technologies.

## **Overview of new Dialogue communication system** **Diane Affleck, ACWA**

*Feedback regarding the new Dialogue communication system:* Dialogue members requested an email notice of new content, the ability to have small discussion groups, site level information, and links to other appropriate Web Sites.

### **Public Comment**

*Public comments are provided each day during Dialogue Meetings.*

*Comment on ACWA technologies included in the PMCD site specific NOI:* During the first day's public comments one representative for a Technology Provider pointed out that NOI for PMCD includes two ACWA technologies, thereby bringing ACWA into the PMCD EIS. He stated that the point he was trying to make is that the two EIS processes are not separate and PMCD has to incorporate the two ACWA alternative technologies into its EIS because they are in the PMCD NOI.

*Concern about Demonstration II testing and the EIS schedule:* A representative for another Technology Provider involved in the Demonstration II testing expressed the concern that, due to the ACWA EIS schedule, their technology cannot reasonably be considered for a total solution or for their unit processes.

*Comment about ACWA and PMCD working within the EIS process:* An observer suggested that PMCD has their own schedule and does not care what ACWA is doing. A DoD representative responded that they attempted to find the most workable solution that does not put either program at too great a disadvantage.

*Time to review and comment on the NRC Supplemental Report:* A concern was raised that Technology Providers did not get a chance to see the NRC Supplemental Report in time to comment after the NRC presentation. An NRC representative responded that the NRC does not allow for general public review prior to releasing their documents.

*Question about opening the BAA to new proposals:* There was a question about whether the BAA can be opened up for more proposals now that the program was up again. There was a particular interest in the issue of secondary waste. An ACWA representative responded that anyone can submit an unsolicited proposal and it was recommended that a white paper explaining the proposal and the need it might fill be submitted before the actual unsolicited proposal.

### **Closing Comments**

#### **Bill Pehlivanian, Deputy PM ACWA**

In his closing comments Mr. Pehlivanian expressed the ACWA Teams' openness to exploring flexibility in the ACWA EIS process. He also reminded the Dialogue that they should not forget about the ongoing Demonstration II and EDS activities.

### **Discussion and agreement on next steps**

Next steps focused on clarifying the mission of ACWA, a discussion about new participants for more diverse perspectives, and planning for the next full Dialogue Group meeting.

*Expanding the Mission of ACWA:* In the course of discussion at different times during the Portland Meeting, it was suggested by multiple citizen Dialogue participants that the mandate and scope of ACWA might be broadened through legislation. These participants feel this would allow issues such as secondary waste, the bifurcated and inefficient implementation of chemical weapons destruction, and decommissioning of chemical demilitarization facilities to be addressed in a better fashion. The ACWA Program Manager responded that these items were clearly outside the Congressionally mandated limits of the ACWA Program.

*New Dialogue participants:* Dialogue participants discussed the different motivations for participating in the Dialogue, and agreed that the driving forces are different at particular stockpile states. A participant stated that the Dialogue needed to continue working on gaining consensus within the current Dialogue Group.

*Next Dialogue meeting:* The next Dialogue meeting is tentatively planned for October 2000. This may be adjusted to accommodate the needs of the Dialogue and the overall ACWA schedule.