

### Chemical Demilitarization Citizens' Advisory Commission Chemical Destruction Community Advisory Board 105 5<sup>th</sup> Street, Suite 206 Richmond, KY 40475 859.624.4700 / 859.986.7565



Kent Clark Craig Williams Co-Chairs

Doug Hindman Chair

Chemical Demilitarization Citizens' Advisory Commission (CAC) and Chemical Destruction Community Advisory Board (CDCAB) Meeting Summary of Action Items and Discussions

Dec. 13, 2011

Eastern Kentucky University
Richmond, Kentucky

### **Attendees**

Kentucky Chemical Demilitarization Citizens' Advisory Commission (CAC): Doug Hindman, Robert Miller, Sheila Pressley and Craig Williams

Chemical Destruction Community Advisory Board (CDCAB): Tim Barrett, Lt. Col. Steven Basso, Dan Bayens, Jeff Brubaker, Jeanne Hibberd, Doug Hindman, Mike Hogg, Steve Karcher, Mark Klaas, Tom McKinney, Ramesh Melarkode (for Col. Brian Rogers), Robert Miller, Bill Nave, Kevin Regan, Carl Richards, David Rowlette, April Webb (for Tim Hubbard), Craig Williams and Todd Williams

#### **Media Attendees:**

The Richmond Register: Ronica Shannon Lexington Herald-Leader: Greg Kocher

### **Meeting Synopsis**

The meeting provided information on the following:

- Recent Developments within the Chemical Weapons Convention
- Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) and Bechtel Parsons Blue Grass Year-in-Review Update
- Final X-ray Assessment Results and Explosive Destruction Technologies (EDT) Path Forward
- Anniston EDT Data Presentation
- Madison County Emergency Management Agency (EMA) Year in Review

### **Meeting Summary Structure**

This meeting summary is not intended to be a verbatim record of conversations, but instead will provide an overview of the discussions and next steps committed to by the government and various members of the CAC and CDCAB. Key action items identified in the meeting and a synopsis of the major questions and comments discussed during the various updates are noted below. Copies of slides and handouts presented during the meeting can be obtained from the Blue Grass Chemical Stockpile Outreach Office (ORO) at (859) 626-8944 or bgoutreach@iem.com.

### **Action Items**

Action Item: EDT Working Group and CAC/CDCAB to provide recommendation on EDT

to BGCAPP project.

Responsible Entity: Doug Hindman, CAC chair, and Craig Williams and Kent Clark,

CDCAB co-chairs.

**Timeline:** Jan. 31, 2012.

Action Item: Distribution of Anniston EDT Static Detonation Chamber lessons learned

and emissions data reports.

**Responsible Entity:** BGCAPP personnel.

**Timeline:** When complete.

### **Outline of Key Issues and Discussions**

### Welcome and Introductions - Chris Higginbotham, ORO, Outreach Manager

Chris Higginbotham welcomed the attendees, reviewed the meeting agenda and noted the following action items from the Sept. 13 CAC/CDCAB meeting:

Action Item	Steps Taken	Date/Status
Finalize the X-ray assessment data and present to the CAC/CDCAB.	Brubaker provided this information to CAC/CDCAB members at the Dec. 13 meeting.	Dec. 13, 2011
Re-form the EDT Working Group (EDTWG).	This group has met twice since the last CAC/CDCAB meeting.	Oct. 11 and Dec. 9, 2011

Dec. 13, 2011 (Page 2 of 10)

Reconvene the Economic Development Working Group (EDWG).	Core group has met twice since last CAC/CDCAB meeting; entire group will reconvene after funding is obtained for the planned economic study.	Dec. 13, 2011
Proposal of 2012 meeting dates to CAC/CDCAB members for comment.	Dates approved at the Dec. 13 meeting: March 13; June 13; Sept. 12; Dec. 11, 2012.	Dec. 13, 2011

# Opening Remarks — Doug Hindman, CAC Chair, and Kent Clark and Craig Williams, CDCAB Co-Chairs

Hindman welcomed members and attendees.

Williams also welcomed members and noted Kent Clark would not be attending the meeting due to his attendance at the gubernatorial inauguration.

### **Key Updates**

Recent Developments within the Chemical Weapons Convention – Craig Williams, CDCAB, Co-Chair

Slides of this presentation are available by contacting the ORO at (859) 626-8944 or bgoutreach@iem.com.

Williams updated the group on his attendance at the recent meeting of the Organisation for the Prohibition of Chemical Weapons at The Hague, Netherlands. Williams gave background information on the treaty, explaining the signatories, convention prohibitions and timeline. He said the primary issue at the conference was how to deal with the inability of some signatories to meet the 2012 chemical weapons destruction deadline. Williams said the purpose of his participation at the meeting was to emphasize U.S. commitment to the destruction operation in Kentucky. Williams clarified that per executive council recommendation, no sanctions or penalties will be undertaken against the U.S. due to breaching the treaty deadline. The action passed almost unanimously, with the one negative vote cast by Iran. He noted pressure from the international community toward the destruction of the weapons has not diminished as a result of these decisions.

Dec. 13, 2011 (Page 3 of 10)

### BGCAPP and Bechtel Parsons Blue Grass Year-in-Review Update — Jeff Brubaker, BGCAPP, Site Project Manager (SPM) and Tom McKinney, Bechtel Parsons Blue Grass, Project Manager

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Brubaker and McKinney gave a recap of the major activities and accomplishments of the BGCAPP project in 2011. They highlighted major milestones such as BGCAPP's receiving notification as participating in the Occupational Safety and Health Administration's (OSHA) Voluntary Protection Program (VPP) as a Star-designated site, construction completion now at 45 percent, and the installation of core process equipment. McKinney said five of the last six months at the site have been accident-free, and said OSHA recognized 17 safety best-practices at BGCAPP site. He said OSHA would be distributing BGCAPP information to other sites to help in their safety programs. Brubaker said six chemical demilitarization sites before BGCAPP were successful in earning Star status, and that the Blue Grass Army Depot is seeking the designation as well. The two then covered other key accomplishments, including the first elevated concrete placement on the Munitions Demilitarization Building (MDB) and the Agent and Energetics Neutralization Reactors installation, and gave look ahead for 2012, noting the upcoming placement of the Energetics Batch Hydrolyzers and the workforce ceremony to celebrate the OSHA VPP award.

Robert Miller asked if the increased complication of construction will slow down progress. Brubaker answered that 2012 will mark a significant change at the BGCAPP site—the concrete and structural steel will be finished and new craft will come on for jobs, including wiring and pipefitting. Miller asked if weather would be a significant factor going forward. Brubaker said it would not, as a lot of work will be under cover.

Williams congratulated Brubaker and McKinney on the project's Star status and said it was very encouraging for the workforce. He then asked if the rocket shipping and firing tubes would be included in the standard destruction process. Brubaker answered no, that they will be removed as part of Rocket Cutter Machine operations, moved into the Rocket Motor Shipping Room, then monitored and cleared for off-site disposal. Williams asked if any shipping and firing tubes would be processed through the Metal Parts Treater. Brubaker replied yes for residue from the EBH operation to destroy an overpack or leaker, and that an entire rocket could be processed through the plant, if necessary. He said typically, the rocket motor can be successfully separated from the warhead and the motor assembly monitored for disposal outside of the MDB. Wiliams noted he had received questions on processing PCB's, or Polychlorinated Biphenyls, which can be found in the rocket shipping and firing tubes, from members of the community.

Williams queried current and future workforce needs, asking if there had been any challenges in recruiting thus far or if any were anticipated in the future. Brubaker said there had been no challenges to date and the project was working closely with the building trades on future needs. He noted electricians may be a pinch point, and they

may have to come from a wider area or be hired at higher skill levels. Williams asked if employees from other sites would come to the BGCAPP project. Brubaker replied yes, that Bechtel Parsons Blue Grass and URS have already taken great strides in communicating with the three remaining U.S. Army Chemical Materials Agency (CMA) demilitarization sites to determine which of their personnel would be interested in relocating, and the interest appeared to be sizeable. He said workers with previous startup experience have already been transitioning to the site. McKinney said Bechtel Parsons Blue Grass is doing labor surveys to determine competition in the area for craft and is looking at incentives to keep craft workers from going to other projects. Williams then said there was a lot of interest from the community in the project's local hiring efforts and asked if the project was considering reaching out to the local schools for control room operators, maintenance, robotics and other personnel. Brubaker replied that the current focus was more on engineering personnel, and the project is working with the University of Kentucky and other nearby engineering schools. He noted that what Williams described would happen as the project moves forward, and that the three major functional areas of laboratory, maintenance and plant operations would be good areas for recruitment for local personnel, particularly if they have previous experience. He said new personnel in those areas will be a mixture of local hires and personnel brought in from other projects.

Miller asked what project policy is on wage structure and hiring, and how much flexibility the project has in recruiting people. McKinney noted the project offers competitive salaries and benefits and said the prevailing wages are fixed. If a new plant comes in and needs similar personnel to those employed at BGCAPP, there may be some flexibility the project can use to keep workers on the project.

Final X-Ray Assessment Results and Explosive Destruction Technologies (EDT)
Path Forward — Jeff Brubaker, BGCAPP, SPM

Slides of this presentation are available by contacting the ORO at (859) 626-8944 or bgoutreach@iem.com.

Brubaker briefed the group on the recent X-ray assessment, including background and methodology, and discussed the results compiled upon completion of the assessment. He noted about 40 percent of the mustard munitions can be expected to have greater than 59 percent heel. Brubaker discussed three options that the EDT working group is considering for processing the mustard munitions: 1) use the current BGCAPP design/facility, 2) make design modifications to BGCAPP facility, and 3) use an EDT; and gave the pros and cons of each. He then gave his insights for the path forward and discussed the feasibility study the Assembled Chemical Weapons Alternatives program asked Bechtel Parsons Blue Grass to complete regarding Blue Grass use of EDT. The feasibility study found integration of an EDT is feasible, all three of the considered systems could likely handle the number of munitions projected, and the site location would need to address some issues such as utilities and explosive safety separation distance. He noted the depot and chemical activity have been supportive in looking at

siting requirements for this operation. Brubaker reiterated his commitment of transparent discussions to the community on this topic and asked the CAC/CDCAB for their recommendation on the use of EDT at Blue Grass by the end of January.

Jeanne Hibberd said the EDT working group had discussed potential of EDT and wondered if it could be of benefit to the depot after demilitarization operations, or if other items would be brought in to make use of it. Brubaker said the equipment could potentially be used to support the destruction of conventional munitions. He said he did not foresee items being shipped here as the depot has limits on the types of munitions it can store. Williams reminded the group of the law prohibiting the importing of chemical weapons into Kentucky and said unless non-stockpile items (items not held in the known U.S. stockpiles) were discovered in Kentucky, outside chemical weapons will not come here. He said from the environmental and public health standpoint, the future use of EDT for destruction of conventional weapons is a plus. Hibberd wondered if other toxic weapons could be brought in to the Blue Grass. Williams the important issue for the long-term is that the community remain vigilant and engaged no matter which way things go.

Hindman asked if a feasibility study had been done on making modifications to the base plant process. Brubaker answered that no formal engineering evaluations have been done on modifications to the existing plant process.

Robert Miller asked why there was a five-percent agent processing restriction for the Metal Parts Treater (MPT), because the Tooele facility had no such restriction. Brubaker explained Tooele was using incineration through a Metal Parts Furnace. The Blue Grass MPT was not designed to primarily process agent. He said the five-percent limitation comes from testing done in the late 1990's – early 2000's, where the assumption was a two-percent heel remaining after the wash-out period and the number was adjusted to five percent for the permitting process.

Williams said he hopes the EDT working group will try to meet again after the holidays, to receive more information from ACWA and CMA, draft the group's recommendation and circulate to the CAC/CDCAB for review, comment and input.

Hindman said he did not realize there was a feasibility study underway and asked to see a copy of it. Brubaker said he would look into providing a copy when the study was complete, but it could be procurement-sensitive, so he was not able to give a complete answer at this time.

Sheila Pressley asked about where the contaminated waste would go after operations were over. Brubaker replied that decision has not been made yet, but due to the types of waste and waste codes that would apply to this operation, the project has a good idea of the types of facilities required. There is still a ways to go before specific decisions can be made, and wherever possible, the project is looking to minimize transfer of waste offsite.

# Anniston Chemical Agent Disposal Facility (ANCDF) EDT — Tim Garrett, ANCDF, SPM

Slides of this presentation are available by contacting the ORO at (859) 626-8944 or bgoutreach@iem.com.

Garrett provided information to the group on his project's experience with the Dynasafe 1200 Static Detonation Chamber. He explained the rationale for choosing the unit, as well as its requirements, and stated his personal policy regarding this project was, "Walk, crawl, run," meaning going through the steps logically and in order. He said utility requirements for the project were natural gas, water and a power source. Garrett emphasized that the primary benefit of using an EDT at Anniston was protecting personnel. He then gave some information about the European EDT process said the Europeans did not monitor continuously for agent throughout their process. Garrett then discussed the setup, operation and filtration of the unit and said it performed exceptionally well, despite the need for some initial adaptations. He said the project did extensive voluntary emissions testing, including conventional, surrogate and chemical munitions, that met extremely stringent requirements. Garrett said Dynasafe did an exceptional job of working with ANCDF to resolve challenges and were incorporating the changes into their next design. A lessons-learned report will be generated and distributed when the work is complete. The chamber at Anniston will be tested with conventional munitions for the next year to gain reliability information for future design and planning. Garrett noted challenges encountered during use of the system, including agent migration into the secondary chamber, carbon monoxide generation during processing, rapid loading and depletion of the process charcoal filters and system reliability. He said it was a very successful system, but was in no way a turn-key operation; a lot needed to be learned and addressed before it was productive, and it requires significant operator knowledge.

Miller asked about the European experience without continuous monitoring. Garrett said the Europeans did not do process monitoring but did demonstrate process reliability, and their problem was mostly dust from heavy metals. Miller asked if the United States systems must do continuous monitoring. Garrett said it was all about protecting the workers and he felt the monitoring ANCDF conducted was absolutely essential to guarantee that protection. He noted the system had never been applied for this use stateside prior to the Anniston project.

Carl Richards asked what the shelf life was of the unit, referring to the replacement of the consumable fragmentation shield. Garrett said the European system has not required replacement yet, and noted modeling would give an idea of when failure could be expected—the larger the munition (net explosive weight), is thought to result in shorter time to replace the inner liner. He said the SDC 1200 chamber is permitted for 6.6 pounds of explosive weight, so it would not be possible to dispose of an 8-inch projectile in it. Richards said there were 15,400 rounds in the total stockpile and asked if the fragmentation shield would need to be replaced for that number. Garrett replied Anniston

did not process that many, and the Europeans processed tens of thousands of rounds but did not have to replace the shield. He wants to do more testing to get that data.

Richards asked what a sprung structure was, and Garrett replied it was a membrane covered building similar to high-tech tent, which Anniston modified to allow air going through a carbon filter system. Conrad Whyne noted the European models did not have that structure, and having it here would make it easier to guarantee containment.

Pressley referenced the report Garrett mentioned and asked if it were available now. Garrett said there are a couple reports—the one he referred to was the Anniston lessons-learned report and it is being written now. The emissions data went to the state and is available. He said the project has to decontaminate the unit and it was more of a challenge than they expected, so it will likely take until the end of January to finalize the report.

Pressley then asked where the system operators came from. Garrett said they took the best operators and trained them for Anniston SDC operations. He said it was not an intuitive job, and that his operators may be available after their study is complete.

Williams referenced the photo of the burster removal on slide four of Garrett's presentation and asked if the end cap had been unscrewed. Garrett said it was removed as part of the cutter operation, and as there is no tool to extract a burster, they had to improvise.

Williams asked if there was a wait for the temperature to drop in the unit before the next round could be fed in. Garrett replied the upper loading chamber stayed pretty consistent at about 220 degrees.

Williams asked if there were any Automatic Continuous Air Monitoring Systems placed after the Thermal Oxidizer. Garrett said no, agent monitors were strategically placed to sample process air and to sample the air in the various work areas within the sprung structure.

Williams asked about the challenges on slide 25 and asked about the agent migration issue. Garrett said the problem came from having pressure changes when the loading chamber doors were opened, which created a backflow from Chamber Two to Chamber One. Plant air was introduced to combat this issue. He said the project took a time-out at that point to look at the engineering impact of the change.

Williams asked how many conventional munitions the system might process in the allotted year. Garrett replied he would like to do tens of thousands, and the system would have to demonstrate it can handle a 6.6 pound round. It was done in Europe and he wants to verify that here in the U.S. He will then process items the installation has on hand; the more the better.

Williams asked if the emissions report was available electronically and Garrett said he would send it to Chris Higginbotham for distribution. Williams then asked what the TRAM study that Garrett had referred to was and Garrett said it was a Throughput, Reliability and Maintainability study. He said they had not come close to taxing the system. Williams reminded the group that state law for use of EDT requires previous experience with a system, and thanked Garrett for his information.

### Madison County EMA Year in Review - Carl Richards, Madison County EMA, Director

Slides of this presentation are available by contacting the ORO at (859) 626-8944 or bgoutreach@iem.com.

Richards updated the attendees on the progress of EMA programs in 2011. He discussed several topics:

- Public outreach Richards noted the 2011 safety fair had one of the biggest crowds ever. He gave information about several events put on by the EMA and said their media campaigns continue.
- Exercises and training Almost 2,000 first-responders were trained in 2011.
- Tone-alert radio upgrade Upgrade is almost complete, with nearly 30 thousand distributed so far.
- New program mass casualty buses These can handle larger numbers of victims of incidents or accidents and were built on older school buses, saving money over buying new ones.
- New Everbridge mass notification system This system is for longer-term disasters like an ice storm. It will notify residents via land lines through the 911 database and opted-in cell phones.
- Weather warnings issued to the county Warnings were up this year, but there have been no major weather-related events in Madison County so far in 2011.
- Hazardous-materials accident responses.

Richards then gave a look forward to 2012 and said the next annual Chemical Stockpile Emergency Preparedness Program annual exercise will be Sept. 19, 2012.

There were no questions.

## Closing Remarks — Doug Hindman, CAC Chair, and Craig Williams, CDCAB Co-Chair

Hindman said the EDT decision at the end of January is important, and to let him or Craig know if any CAC or CDCAB members would like to be involved in the process.

Dec. 13, 2011 (Page 9 of 10)

Williams thanked Richards for an outstanding job and said his efforts on behalf of the community are exceptional. He thanked Garrett and Whyne for attending the meeting and said he looks forward to receiving the Anniston data. He then the EDT recommendation is moving along as quickly as possible, and thanked everyone for attending.

Higginbotham noted a comment card left with a question about how to find employment on the project, and directed the group to the employment cards on the table at the back of the room for that information.

### Next CAC and CDCAB Meeting

The next meeting is scheduled for March 13 at 1:30 p.m. at the Eastern Kentucky University's Carl D. Perkins Building, Rooms A and B.

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