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**Kentucky Chemical Demilitarization Citizens' Advisory Commission (CAC) and
Chemical Destruction Community Advisory Board (CDCAB) Meeting
Summary of Action Items and Discussions
Dec. 9, 2020
Microsoft Teams Virtual Meeting
Richmond, Kentucky**

Attendees

CAC: Doug Hindman, Harry Moberly, George Ridings, April Webb (for Tammi Hudson) and Craig Williams

CDCAB: Robert Blythe, Dr. Candace Coyle, Col. Stephen Dorris, Judy Greene-Baker, Dustin Heiser, Jeanne Hibberd, Doug Hindman, Ron Hink, Leslie Kaylor, Tara Long, Darcy Maupin, Harry Moberly, Stephanie Nelson (for U.S. Sen. Mitch McConnell), George Ridings, James Stephens (for U.S. Sen. Rand Paul), Judge-Executive Reagan Taylor, April Webb (for Tammi Hudson), Craig Williams, Lt. Col. Edward Williams and Ethan Witt

Media Attendees:

WEKU-FM: Stu Johnson

WTVQ-TV: Steve Rogers

Meeting Synopsis

The meeting provided information on the following:

- Remarks from the Assembled Chemical Weapons Alternatives (ACWA) Program Executive Officer
- Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) Year-in-Review and Project Update
- Kentucky Department for Environmental Protection (KDEP) Permitting Updates
- Economic Impact Working Group (EIWG) Update

Meeting Summary Structure

This meeting summary is not intended to be a verbatim record of conversations; instead, it will provide an overview of the discussions and action items of government representatives 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 documents 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: Coordinate with other signatories to determine if the Supercritical Water Oxidation (SCWO) Memorandum of Agreement (MOA) may be shared with CAC/CDCAB members.

Responsible Entity: Michael Abaie, program executive officer, ACWA.

Timeline: By March 3, 2021.

Outline of Key Issues and Discussions

Welcome and Introductions – Sarah Marko, Communications Manager, ORO

Marko performed a roll call, welcomed the attendees, provided virtual meeting best practices and reviewed the meeting agenda.

Opening Remarks – Doug Hindman, Chair, CAC; Reagan Taylor, Co-Chair, CDCAB; and Craig Williams, Co-Chair, CDCAB.

Taylor said it was great to see everyone virtually, but he cannot wait to get back to the Perkins Building and see everyone in person. He wished everyone a merry Christmas and happy holidays.

Hindman said he was glad to see everyone and hopes everyone is staying safe. He recognized the BGCAPP workforce for staying safe and keeping the program on track, which he considers an accomplishment during the current pandemic situation.

Williams welcomed everyone and said he appreciates the continued engagement. He mentioned what a terrific job the outreach personnel do in providing the virtual meeting. He echoed Hindman's comments about ACWA and BGCAPP continuing to operate with the COVID-19 challenges and said he hopes everyone, and their families are well.

Marko then noted the following action items from the Sept. 23, 2020, CAC/CDCAB meeting:

Action Item	Steps Taken	Date/Status
Determine dates for 2021 CAC/CDCAB meetings	The dates were included in the pre-meeting email and provided at this meeting and no dissent was noted: March 3, June 9, Sept. 8 and Dec. 8.	Complete.
Clarification of hazardous waste shipment information	Information provided in this briefing.	Complete.
Status of actions from the CAC/CDCAB SCWO Letter of Intent (LOI)	Information provided in this briefing.	Complete.

Key Updates

Remarks from the ACWA Program Executive Officer – Michael Abaie

Abaie said it was a pleasure to be with the group and while he wished it could be in person, he noted the pandemic has its own plans. He hopes all remain well. Abaie said COVID-19 has had a significant impact on the program and acknowledged the workforce and leadership teams at BGCAPP for minimizing the impact to the mission and the facility. He said ACWA had early on implemented a pandemic plan coordinated with the Centers for Disease Control and Prevention (CDC), which is in compliance with their recommendations. He noted one of those recommendations was that the plants should remain operating, as an operating plant is much safer than a non-operating one and said everyone has done a phenomenal job to ensure that posture is maintained. Abaie said there were some significant COVID spikes recently at both sites and because of the number of infections within the workforce, ACWA has decided to delay the start of the VX 155mm projectile campaign from early December to early January to ensure the workforce is proficiently trained for operations. He said the start date will obviously be dynamic as they move forward but he is confident in the workforce remaining safe to execute the start in early January. Abaie then said ACWA personnel have very diligently been working on the SCWO LOI recommendations, with an update to come in the BGCAPP update presentation. He said he has been working hard to make sure ACWA meets the intent of the letter and updates will be provided as they move forward. Abaie said closure planning has already begun. He thanked members of the CAC and CDCAB for their participation in the recent tour and their input so far. He said plans will be aligned with the group as time progresses. He wished everyone a merry Christmas and a

safe and peaceful holiday season. He noted, as Taylor did, the technology is great, but he would really like to be back together in person and said everyone will weather the storm and get back together in the future.

Marko then played the four-minute *Kentucky Chemical Weapons Destruction: 2020 Year in Review* video (<https://www.youtube.com/watch?v=22mmXxtTC9o>).

BGCAPP Project Update – Dr. Candace Coyle, Site Project Manager, BGCAPP, and Ron Hink, Project Manager, Bechtel Parsons Blue Grass (BPPG)

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

Coyle commended the ORO for the year-in-review video and said she was impressed with the ability of the workforce to remain steadfast and safe and able to proceed with the mission at hand during the pandemic. She began the Year-in-Review presentation with the seasonal highlights:

Winter

- Explosive Destruction Technology (EDT) – the first emissions test and the processing of overpacked munitions.
- Main plant – the start of nerve agent operations with the first eight-inch projectile destroyed Jan. 17, the first batch of chemical agent processed and the first nerve agent treaty sampling operations.
- Static Detonation Chamber (SDC) 2000 – start of site utility work and the facility reached 60% design completion. She noted there was significant work in the January through March time frame and said there were two significant events, the first being the main plant start of operations, with the second being the impact of the COVID-19 pandemic. Coyle said the project went right into pandemic planning and she thanked the Blue Grass Army Depot (BGAD), Blue Grass Chemical Activity (BGCA) and the Joint Venture (JV) for working with the project on plans and moving forward successfully. She said they continue to manage and monitor trends at local, state and national levels and make adjustments as necessary.

Hink said they implemented the CDC's recommended protocols guidance and track how effective they are. He said the spread of the disease on the site has largely been eliminated and most infections come from personnel's lives outside work. Hink said as they start the next campaign, the way it begins has some built-in workforce protection due to the slow, methodical start-up on day shift only for the first four weeks. This will give more depth in workforce positions and they can backfill for those who might be out from the COVID impact. They will then see how quickly they will be able to come out of that posture after those four weeks and will make that decision as a team. Hink emphasized management is very focused on the health of the workforce as they head

into this campaign. Coyle said the government personnel are in lockstep with that approach and she is appreciative of the partnership in working on this.

Spring

- EDT – found a successful locking ring seal solution to be able to process more mustard munitions and design started on an upgraded off-gas treatment system. When the mustard munition destruction is complete, changes will be made for the SDC to process nerve agent (drained rocket warheads), including the off-gas treatment system, and it will then be known as the SDC 1200.
- Main plant – completion of the first munitions campaign, which she said was a great moment not only for ACWA and the U.S., but for the site to complete one of five campaigns; the decision was made to process VX projectiles next instead of GB rockets due to the projectile line being up and running and the workforce being proficient in projectile destruction, plus there was still a lot of work to be done on the rocket line; changeover from GB to VX agent munitions processing started; new rocket line equipment was moved in; and factory acceptance testing of the Rocket Warhead Containerization System (RWCS) was completed. She noted the amount of work that went into the new rocket line and was actually accomplished in the space of one year.
- SDC 2000 – site and utility work and construction of the Earth-Covered Magazine (ECM) and Personnel Support Facility (PSF).

Summer

- EDT – the first leaker event on site where two mustard projectiles in the EDT Service Magazine (ESM) were isolated and overpacked, plus the first carbon filter changeout for the ESM. She gave credit to the workforce, BGCA and BGAD for their partnering efforts in performing the changeout.
- Main plant – continuation of decontamination, installation of new rocket line equipment and reception of RWCS equipment at the off-site training center.
- SDC 2000 – site and utility work, continued construction of PSF and ECM and main facility and off-gas treatment system foundation placement.

Fall

- EDT – more than 64% of the mustard munitions were destroyed and the workforce is preparing for the changeout of the 16K carbon filters. She said the age of the mustard agent being destroyed may have affected the filter system more than anticipated. Hink said it was a first-time evolution for the changeout, with a lot of people involved, and they will do it with supplied air for safety. He noted they are performing demonstrations today and they expect it will take a couple weeks to restore the system to operating status.
- SDC 2000 – the ECM was covered, and components of the off-gas system arrived, with the thermal oxidizer unit coming at the end of this week.

- Main plant – the Operational Readiness Review process is ongoing and the Vertical Rocket Cutting Machine (VRCM) has been completed, factory tested and shipped to the site for installation. The change to this equipment was made this year after a visual inspection of rockets in the storage igloos showed some warping that the previous equipment was not ideal for handling. She said a non-destructive scanning tool was also added to check for leaks within the rocket shipping and firing tubes before processing. Coyle thanked KDEP for their assistance in processing all the permit modifications, said there are still a few compliance-schedule items that need to be completed before the VX-processing permit is complete and noted the in-process Class 3 permit modification request for the off-site shipment of hydrolysate. Hink said they are targeting early January for the start of the VX projectile campaign and the Integrated Operations Demonstration (IOD) will begin the week of Dec. 14. He noted the IODs will be a little different due to the pandemic, with fewer visitors coming for observations. Hink said BPBG will likely declare readiness Dec. 21, but they won't make the declaration until they are confident the crews are ready, and they are keeping a close eye on the COVID-19 status of the crews, as well. He said the VX projectile campaign should be completed in the late spring-early summer timeframe. Hink informed the group the campaign delay provided the opportunity to finish the installation of the new rocket line equipment, as there were a lot of craft workers on that project and they are not trained chemical workers. He said all the equipment was installed and cables have been run but not yet terminated, which he expects to be complete by Dec. 18. Hink said after a few weeks of VX destruction they should be able to get back into the rocket area and systemize the equipment, as it is a different part of the plant with little risk of contamination and that work will be done by an agent-trained workforce better able to deal with any issues. He said VX rocket destruction will follow the VX projectiles, as the current conveyor system is needed for the projectiles, but a lot of the schedule is contingent on COVID-19 impacts. He reassured the group the project will make the right decisions moving forward.

Coyle provided a destruction update and said 87.3 U.S. tons of chemical munitions have been destroyed as of Nov. 27. She said one of five campaigns have been completed and the plant is about 64% done with mustard munitions. She noted the decision to not use the SCWO system and said a lot of planning and conversations have been happening regarding the off-site shipment of hydrolysate. Hink said the plan now is to ship the hydrolysate for off-site disposal and the discussion now is on how to arrive at the appropriate criteria to safely release the hydrolysate from the plant, noting the permit requirements obviously need to be met, as well as health-based safety requirements. He said the bottom line was that they selected the lowest, or safest, levels under the permit and health-safety requirements. He provided information on the levels and requirements and explained what parts-per-billion meant. Hink said the levels at which hydrolysate will be released are very conservative and much lower than the toxicity levels. He explained there is nothing in the permit that restricts EA-2192, a caustic neutralization destruction product, but they have established a lower level and will use that. Coyle said discussions have been held with the CDC on the release criteria and they understand them and are in agreement, and initial discussions have been started with KDEP on the subject.

Coyle shifted to the SCWO LOI actions and said:

- 1) SCWO evaluation/transition - The MOA has been signed by all parties from the U.S. Army and Department of Defense (DOD) partners and a two-year study will be conducted by the U.S. Army Combat Capabilities Development Command Chemical Biological Center to evaluate the SCWO system to determine future use. She said the program plan and statement of work are underway and she anticipates execution of the study to begin January 2021, based on availability of funding. Coyle said extensive preliminary information has been provided, with a site visit scheduled for 2021.
- 2) Liquid waste stream reduction - Hink said their intent has always been to reduce the generation of liquid waste and they already plan to reduce generation of Spent Decontamination Solution (SDS) waste by using SDS as 'makeup' water in the VX neutralization process. He said he appreciates the CAC/CDCAB members asking about this but wanted to say they will never encourage workers to use less decontamination solution because it adds risk of contamination when the workers are cut out of their suits. Hink said the project will use the waste generated in that process in response to the LOI request.
- 3) Technology options for treating off-site waste – Coyle said based on current available commercial technologies for treatment of hydrolysate, ACWA is in the process of performing an evaluation of incineration, deep-well injection and bio-treatment for a programmatic recommendation to BPBG by the second quarter of Fiscal Year 2021. Abaie said the bio-treatment option is unlikely because that technology is not mature enough to support treating VX hydrolysate. Also, based on initial reviews, he said it appears that deep-well injection will not be a viable option. He said it looks like incineration is the most likely option. Williams asked if it was correct the Organisation for the Prohibition of Chemical Weapons does not consider deep-well injection as the final end to the destruction process. Abaie said that was correct and getting the proper agreements to do so will probably not meet the program deadline.
- 4) Public outreach plan and execution process – Coyle said there are already discussions underway to examine current treatment, storage and disposal facility and transportation company public outreach processes and they are working this along with the other items. Abaie said, to manage expectations in this area, not a lot of organizations have outreach components like ACWA does. ACWA has developed a very robust program over the years to work with all the stakeholders, and everyone needs to understand this as ACWA works with the different organizations to come to a solution.

Williams asked for a copy of the final, signed MOA. Abaie emphasized that this MOA was just for the study and path forward for the SCWO system and outreach is not a part of this MOA. He said he will need to check with the other signatories for their approval before release to the group.

Hink provided an update on the waste shipment clarification action item from the last meeting and said the project needs to ship certain wastes that cannot be processed in the plant, like contaminated personal protective equipment, dunnage and carbon from the filter banks. He said if they can decontaminate certain materials to a particular level and monitor them as clear, which they do, those materials will not be disposed of in this manner, but some materials do have to be shipped off-site for proper disposal. Hink said the materials are shipped under specific requirements and monitored before and after shipment and may not contain liquid agent or hydrolysate.

Coyle then provided information on closure and said the CAC/CDCAB closure briefing and tour happened Oct. 14 and she met with Hindman and Williams Nov. 4 to answer any questions they had on the subject. She said the discussion on closure is only beginning and it will take years to plan. When the VX campaign is over, they will be able to start closure activities in that area and clean out parts of the plant that are not necessary at that point, and they will progress closure activities concurrently with operations going forward from there. [NOTE: Permitting activities and approvals are required before any closure activities commence].

Hink gave a safety update and said the project has a pretty incredible workforce that stays focused and delivers, which he considers remarkable for what they do. He said of the Bechtel projects around the world, this one is the safest, even through construction and chemical agent processing. For economic impact, he said staffing will stay around 1,400 for operations, and the project's diversity closely mirrors Kentucky statistics, which he likes to see. He provided minority information as a reference. Hink noted starting in September the project shifted to virtual recruiting events. Williams asked how hiring was going and if there were any specific challenges in any areas. Hink said they have never stopped hiring, as the project has a significant attrition rate, driven by an aging chemical demilitarization workforce. They have been able to replace those who leave, which has gone better than he expected. He said the project is always prepared for additional hiring challenges, but they have kept the process up and running. Hink said the open positions are from highly to lesser skilled and some require more formal training than others. Some positions can be trained for, but some require experienced personnel. He said Parsons is almost always hiring for positions at some level and the project is still looking for a doctor and a purchasing lead, among others. He then provided the BPBG hiring process and said it is online and positions can be applied for there.

Coyle said it has been a very busy year, with the start and end of the GB projectile campaign, with great progress on the difficult mustard campaign, and the addition of the new rocket line. She provided a look ahead and pointed out the plant will start its first rocket destruction operations, progress for the SDC 2000 site and the start of closure planning activities.

Williams asked if there had been any interaction with the Department of Health and Human Services (DHHS) on the level of prioritization for the BGCAPP workforce in regard to distribution of COVID-19 vaccine and wondered where the BGCAPP workforce falls on

the list of essential workers. Abaie said there had been a lot of dialogue on this within DOD and he has just signed a letter that requests the plant workforces be put on the list to be submitted. He said they cannot mandate that workers get the vaccine, but they can offer it. He said they are working on this process right now and they have to gain endorsement from DHHS. Abaie said the ACWA mission is vital and the workforce is at the tip of the spear, so they need to be protected.

KDEP Permitting Update – Dale Burton, BGAD Section, KDEP

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

Burton said KDEP has recently approved a number of Temporary Authorization Requests (TAR), which allow the U.S. Army to move forward with construction or installation of equipment before having a formal permit to do so. These include extending the TARs for SDC 2000 construction and installation of RWCS equipment, initial construction of a new building for the SDC 1200 Off-Gas Treatment System and installation of VRCM and Rocket Non-Destructive Examination equipment. He said the review of applications for permits for the above continues. Burton said KDEP has approved several Class 3 modifications including for the VX projectile campaign and additional EDT Enclosure Building storage, as well as the VX demonstration test plan and other VX Class 1 changes. He said the demonstration test plan is important, as it covers details and testing of emissions to prove the plant is meeting the six nines of destruction (99.9999% destruction efficiency). Burton then said KDEP has sent comments to BGCAPP regarding the VX demonstration test plan, the upgrade of the EDT off-gas treatment system to destroy nerve agent, a Class 1 modification for additional changes for VX projectile operations and the rocket warhead transport and storage application. He discussed several major reviews in progress, including an application for 29 additional igloos for buffer capacity for uncontaminated rocket motors, the off-site shipment of hydrolysate, storage of containerized warheads in Chemical Limited Area (CLA) igloos and resubmittal of the SDC 2000 permit application, which he said is a very significant document to review.

Williams asked if the additional 29 igloos for uncontaminated rocket motor storage did not have to be in the CLA. Burton said correct, they will not be in the CLA, and it will be up to 29 igloos depending on capacity needed until the decision is made on the final demilitarization of the motors.

EIWG Update – Craig Williams, Co-Chair, CDCAB

Williams said he wanted to point out how certain issues being discussed—the economic piece, the Process Working Group, closure and the SCWO challenges—are coming together as a coordinated process of trying to work through those issues. He said he appreciates everyone's engagement in the process. He said the National Defense

Authorization Act passed the U.S. House of Representatives with an overwhelming majority and he hopes it will maintain its progress forward. For economic impact, he feels some of the items are starting to integrate, especially closure and the economic impact process. Williams said he was able to have language added to the committee report that provided increased awareness to include local communities in decisions to be made as to what to do with the project workforce and infrastructure, as the earlier version did not include that. He said when that omission was seen, he interacted with Senate Majority Leader Mitch McConnell's office and asked them to provide the directive that the community be allowed to have formal involvement in the closure process, and they did so. Williams noted significant progress has been made with the Blue Grass Area Development District (BGADD) relationship as well as welcome input from the Kentucky Commission on Military Affairs (KCMA) on initiating contact with the DOD Office of Economic Adjustment (OEA). He said KCMA had been extremely helpful in helping frame the initial contact with the OEA and the group has a final letter to be sent to the OEA next week, a final consensus between BGADD, KCMA and the CAC/CDCAB. He said his effort has been to generate letters from local, state and federal delegations in support for the request for OEA funding for job training, job transitioning and other employee assistance for closure. He said he has commitments from everyone on the list with the exception of the state, but he is confident they will commit soon. Williams said the first indication that there are funds coming through state and area development districts that will assist in seeking other funding sources will add to the group's capabilities to prevent a post-demilitarization economic downturn.

Closing Remarks – Doug Hindman, Chair, CAC; Craig Williams, Co-Chair, CDCAB; and Michael Abaie, Program Executive Officer, ACWA

Williams thanked Abaie for his leadership and for taking the time to join the meeting. He said he appreciates everyone's time and asked everyone to stay safe and protect their families and friends by following protocols, noting it is not all about ourselves; it's about others.

Hindman echoed Williams' comments.

Abaie wished everyone happy, joyous peaceful and safe holidays and thanked the group for the opportunity to have the conversation.

Next CAC and CDCAB Meeting

The next meeting is scheduled for Wednesday, March 3, 2021, at 1:30 p.m. The meeting format has yet to be determined.

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