



Inside

- BGCAPP Laboratory Readiness Review pg. 1
- The History of Chemical Weapons Destruction pg. 1
- Groundwater and Soil Protection pg. 2
- Meet Dale Burton pg. 2

Demil Dispatch

Recent Progress on the Blue Grass Army Depot Demilitarization Effort.

*Kentucky Department for Environmental Protection
 Division of Waste Management
 Hazardous Waste Branch
 Blue Grass Army Depot Section*

BGCAPP Laboratory – Readiness Review

How do you know if a lab is constructed well and works properly when testing the air for a dangerous substance like chemical agent? At the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP), this means testing many aspects of the lab before anything hazardous is brought into it. The lab manager explains that they will be using a diluted version of the already diluted analytical reference material to make sure that the lab equipment remains calibrated. A readiness review will occur during the summer of 2016 to ensure the lab is ready to receive the dilute-agent samples. This readiness review will include:

- ◆ Establishing safe, secure, consistent protocol and procedures for storing, accessing and using the samples.
- ◆ Fully testing and operating the lab heating, ventilation and air conditioning system to ensure it is working properly.
- ◆ Fully training lab personnel on use of respirators, protective clothing and safety equipment
- ◆ Lab contingency procedures to ensure personnel safety.

Once the readiness review is completed, they will do the tests all over again with the very diluted agent samples, to ensure all of the equipment is calibrated correctly. These tests will continue during the main plant demilitarization activities to ensure that the lab continues to work as de-



One of the Laboratory Facility rooms after construction was completed.

signed.



Laboratory testing is an important part of the BGCAPP process.

The History of Chemical Weapons Destruction

By 1985, with the rise of international concern regarding the effects of chemical warfare, Congress directed the Army to destroy the stockpile. The Program Manager for Chemical Demilitarization (PMCD) was the organization formed by the Army to carry out this mission. At the time, the only proven chemical weapons destruction technology was incineration. As plans for the destruction of the stockpile were developed, environmental organizations, community members living near stockpile sites, and government regulatory agencies began discussing other means by which the stockpile might be destroyed. In 1996, in response to these discussions, Congress established the Assembled Chemical Weapons Assessment program, known as ACWA, to identify and demonstrate at least two technologies as alternatives to incineration for the destruction of assembled chemical weapons (munitions containing chemical agent configured with fuzes, explosives and propellant).

(Continued on Page 3)

Groundwater and Soil Protection

Another environmental aspect regarding any hazardous waste disposal site is to determine existing, pre-operation soil and groundwater conditions. These are both part of the permitting process to determine conditions for use at closure and in case of the need for any corrective action.

In preparation for the anticipated Explosive Destruction Technology (EDT) construction, background soil samples and a groundwater monitoring plan have been proposed and are currently being executed by the Bechtel Parsons Blue Grass (BGBP) team and their associates. Based on the needed space for the addition of the EDT and associated support buildings, one of the existing wells (Monitoring Well No. 13) was identified as potentially interfering

with the new buildings. Therefore, BPBG requested to remove and replace Monitoring Well No. 13. At the time of this publication, Monitoring Well No. 13 has been removed and the final location of a newly proposed well is being identified. Soil samples to be used for establishing background conditions for the EDT area have been taken and are currently being analyzed. BGBP and the Division of Waste Management are working together to establish a comprehensive monitoring plan for use during operations and for closure.



Crews working at the site of Monitoring Well No. 13.

Meet Dale Burton – BGAD Section Supervisor



Dale Burton joins the Hazardous Waste Branch as the new BGAD Permitting Section Supervisor, beginning Jan. 5, 2015. Dale is no stranger to the Hazardous Waste program. He worked in Kentucky's Hazardous Waste Branch from 1990 to 2008, most of that time as supervisor of the Corrective Action Section, which reviews and coordinates site cleanup plans for soil and groundwater at Resource Conservation and Recovery Act (RCRA) hazardous waste facilities. He also is very familiar with the Blue Grass Army Depot facility, having served

as project manager and then as supervisor over the review of site investigation and cleanup plans for various sites, known as Solid Waste Management Units (SWMUs), scattered across the entire installation.

Dale received a Bachelor of Arts in earth science from Berea College and a Master of Science in geology from Eastern Kentucky University. He started his working career with a seven-year stint with a major oil company in Houston, Texas. He then moved to Kentucky state government as a coal permit reviewer in the Division of Mine Permits in 1986. Following his work in Hazardous Waste, Dale retired from the state for one year, then started back in the Kentucky Division of Mine Permits in 2010, where he has worked until this transfer to the BGAD Section.

Dale will be in a very different role from his previous position in the

Hazardous Waste Branch; operating permits have different requirements than cleanup plans and post-closure permits. Dale is looking forward to the new challenges and steep learning curve with his new position. He has said that he believes that one of his more important duties will be to keep communication channels open between all of the stakeholders for the chemdemil and other permitting actions at the installation.

Dale and his wife Thelma live in Frankfort with their son, Mark.

Please join us in welcoming Dale into his new position.

History of Chemical Weapons Destruction (cont.)

Congress directed that the ACWA program be conducted independently from the Army's chemical demilitarization effort under PMCD, and further stipulated that the ACWA program manager report directly to the Office of the Secretary of Defense. Upon ACWA's successful demonstration of several alternative technologies from 1997 to 2000, the Department of Defense selected neutralization followed by biotreatment for destruction of the stockpile at the U.S. Army Pueblo Chemical Depot in Colorado in 2002, and neutralization followed by supercritical water oxidation (SCWO) in 2003 for the stockpile at the Blue Grass Army Depot in Kentucky.

Here are a few other milestones that have occurred over the years:

- 1993: Public law establishes Citizens' Advisory Commissions
- 1995: Public law prohibits the transport of chemical stockpile munitions across state lines
- 1996: Outreach offices open in Kentucky and Colorado, and Public law establishes Assembled Chemical Weapons Assessment (ACWA) program
- 1997: The Chemical Weapons Convention treaty is ratified, which directs all member nations to destroy their chemical weapons and production facilities
- 2000: ACWA successfully demonstrated three additional incineration alternative technologies
- 2003: The ACWA program changes its name to Assembled Chemical Weapons Alternatives to better reflect its newly expanded role: overseeing the full-scale pilot testing of neutralization technologies to destroy the chemical weapons stockpiles in Colorado and Kentucky, and Bechtel Parsons Blue Grass team is awarded contract to design, build, and operate the Blue Grass pilot plant, and Chemical Destruction Community Advisory Board (CDCAB) is established in Kentucky
- 2006: Blue Grass Chemical Agent-Destruction Pilot Plant conducts groundbreaking ceremony
- 2008: Operation Swift Solution begins
- 2013: Explosive Destruction Technology system approved by ACWA, Bechtel Parsons Blue Grass (BPG) selected the Static Detonation Chamber

Other information, milestones and a timeline video can be found at the following website:
www.peoacwa.army.mil/about-peo-acwa/program-timeline

*The treaty directs
all member nations
to destroy their
chemical weapons
and production
facilities.*



Members of the CDCAB touring the BGCAPP construction site in 2010.



Groundbreaking ceremony at the Blue Grass Chemical Agent-Destruction Pilot Plant, 2006

*Kentucky Department for
Environmental Protection*

Blue Grass Army Depot Section
200 Fair Oaks Lane
Frankfort KY 40601

Phone: 502-564-6716 ext. 4507
Web: waste.ky.gov
E-mail: heather.alexander@ky.gov

The mission of the Kentucky Division of Waste Management is to protect human health and the environment by minimizing adverse impacts on all citizens of the Commonwealth through the development of fair, equitable, and effective waste management programs.



Printed on recycled paper with federal or state funds when printed.

The Kentucky Department for Environmental Protection does not discriminate on the basis of race, color, religion, sex, ancestry, age, disability or veteran status. The department provides on request, reasonable accommodations necessary to afford an individual with a disability an equal opportunity to participate in all services, programs and activities. To request materials in an alternate format, please call (502) 564-6716. Persons with hearing and speech impairments can contact the agency using the Kentucky Relay Service, a toll-free telecommunication device for the deaf (TDD). For voice to TDD, call 800-648-6057. For TDD to voice, call 800-648-6056.



Aerial Photo of the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) Winter 2014



All photographs courtesy of ACWA, BGCAPP, CMA and KDEP