

# Demil Dispatch

## Recent Progress on the Blue Grass Army Depot Demilitarization Effort.

*Kentucky Department for Environmental Protection (KDEP)  
Division of Waste Management (DWM)  
Hazardous Waste Branch (HWB)  
Blue Grass Army Depot Section (BGAD)*

### The National Research Council visits Richmond and the BGCAPP Site

What is the National Research Council (NRC)? As the operating arm of the National Academy of Sciences and the National Academy of Engineering, the NRC's mission is to improve government decision making and public policy, increase public understanding, and promote the acquisition and dissemination of knowledge in matters involving science, engineering, technology, and health.

Alternatives, (PEO, ACWA) wants to make sure to have a "Plan B" on the shelf in case the on-site technology does not perform as expected. This NRC study will give opinions on the situations in which they might have to shift to Plan B, and also what that Plan B might entail.

The NRC visited the BGCAPP site recently to talk about a study they are undertaking for the project: to review the criteria for successful treatment of hydrolysate for the Blue Grass project. This series of meetings and briefings kicked off the beginning of that study.

The visiting NRC committee hosted a multi-day meeting that included a tour of the site. Also invited were project team members to provide project briefings on the subject and discussed the study, its parameters, and how it will be conducted. Additionally, the committee took time to listen to community members and answer their questions by hosting a public meeting. The study will be available to the public when it is released, currently scheduled for September 2015.

While the Department of Defense reaffirmed a decision to treat hydrolysate onsite using supercritical water oxidation, The Program Executive Office, Assembled Chemical Weapons



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### Explosive Destruction Technology—Status Update

As reported in earlier editions of the Demil Dispatch, the Program Executive Office, Assembled Chemical Weapons Alternatives (PEO ACWA) has decided to use an Explosive Destruction Technology (EDT) system at the Blue Grass Army Depot to safely destroy mustard projectiles. The agent within the mustard projectiles is believed to have solidified and is therefore not suitable

for processing through the main Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP).

In the EDT, a Static Detonation Chamber (SDC) will use thermal destruction methods to destroy the mustard projectiles.

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Dynasafe Workshop in Sweden—building the SDC unit

## New Employees at the KY Department of Environmental Protection

### Meet Todd Powers – BGAD Permitting Section Environmental Engineer Consultant

A new environmental engineer consultant has joined the KDEP team. On May 18, Todd Powers began working with the Blue Grass Army Depot Section.

Todd earned a Bachelor of Science Degree in Chemical Engineering from the University of Kentucky. He earned his Professional Engineer certification in 2010.

Todd's KDEP career began in 2005 with the Division of Water (DOW), Facilities Construction Branch. For five years he focused on regulating wastewater transport and treatment.

He then spent four years as the supervisor of the DOW's Floodplain Management Section.

Todd's role will be changing dramatically — going from a high-volume program that spanned the entire state and focused on natural stream flow and insurance issues, to specifically regulating the Blue Grass Demil Project, which has numerous highly engineered unit processes. "I'm looking forward to using some education I haven't had to tap into for some time and hopefully developing new experience and skills. The KDEP DWM and BGAD teams have been

very welcoming and I'm looking forward to working with new groups of folks."

Todd lives in Lexington with his wife, Ashley, and two daughters, Blake (3) and Bryn (1). They enjoy swimming and riding bikes. Please join us in welcoming Todd into his new position.



### Meet Ted Malone – BGAD Permitting Section Environmental Engineer

A new environmental engineer has joined the KDEP team. On Feb. 2, Ted Malone began working with the Blue Grass Army Depot Section.

Ted earned a Bachelor of Science in Civil Engineering at the University of Kentucky. He is a licensed professional engineer (PE) in the field of civil engineering.

Ted is looking forward to the many challenges of working on the project at the Blue Grass Army Depot.

Please join us in welcoming Ted into his new position. He and his wife live in Estill County (CSEPP zone E2) and they are looking forward to the successful completion of the chemical demilitarization program.



### Meet Shaina Khan – BGAD Permitting Section Environmental Engineer

A new environmental engineer has joined the KDEP team. On June 16, Shaina Khan began working with the Blue Grass Army Depot Section.

Shaina has a Bachelor and Master of Engineering degrees in Biological and Environmental Engineering from Cornell University. Her studies focused on water engineering and waste management. After graduation, she joined the Kentucky Division for Air Quality as a permit reviewer. She also has some experience teaching math and science.

In her spare time, Shaina enjoys tutoring, gaming, and performing improv. A native of Frankfort, Shaina is glad to be back at KDEP and is looking forward to working with the BGAD team.



## New Employees at the KY Department of Environmental Protection

### Meet James Woodrow Friend – BGAD Environmental Inspector

A new environmental field inspector has joined the KDEP team for the Blue Grass Army Depot.

On April 1, James Woodrow Friend started his new position with the Frankfort Regional Office. The Richmond, Ky. native earned a Bachelor of Science Degree in Biology at Washington and Lee University.

Woodrow brings a great deal of experience to the team with his previous education and positions. Following his undergraduate work, he earned a Master's Degree in Biomedical Sciences within the Pharmacology Department at the University of Kentucky. He also spent four years doing lab research at UK's Markey Cancer Center in Lexington, Ky.

In previous positions, Friend was an Anatomy lab instructor at BCTCS, worked as a correctional officer, and managed a farming and rental business in Kentucky.

In his spare time, Woodrow enjoys volleyball, travel, and backpacking. He and his wife live in the Lexington area and he is excited for the opportunity to work with the KDEP team and local community to help resolve the unique challenges at BGAD.



### Explosive Destruction Technology—Status Update (cont.)

The SDC will be followed by more pollution control equipment to ensure air released back to the environment is clean. The SDC chosen for the Blue Grass Army Depot is being built by a company called Dynasafe, and is very similar to the one used successfully at the Anniston (Alabama) Army Depot.

An interesting aspect of the project is a required permit modification for sampling a number of the Mustard munitions as required by the Chemical Weapons Convention Treaty. This sampling will be closely supervised by many organizations and will require approvals by the Kentucky Department of Environmental Protection (KDEP) before the plan will be final.

Site work for the EDT facility began in December 2014, under a Temporary Authorization Request. An application for a permit modification to continue with construction and to operate the EDT has been submitted to and is being reviewed by KDEP's Hazardous Waste Branch.



Dynasafe Workshop in Germany—building the off-gas treatment unit



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**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.**



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## **Aerial Photo of the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) January 2015**



*All photographs courtesy of ACWA, BGCAPP, CMA and KDEP*