In support of the safe storage and demilitarization of the Blue Grass Army Depot (BGAD) and Blue Grass Chemical Activity (BGCA) chemical weapon stockpile, the Kentucky Department for Environmental Protection (KDEP) Division of Waste Management (Division) has approved two work plans.

The first approval was for the “Chemical Munitions X-ray Work Plan,” which detailed the handling and assessment of mustard munitions. The non-intrusive assessment of 96 projectiles and over-packed leaker munitions will provide an estimate of potential problematic rounds that will need to be destroyed in a confined chamber classified as an explosive destruction technology (EDT). The alternative destruction of these munitions will improve worker safety by minimizing handling.

The “Chemical Stockpile Routine Maintenance Work Plan” was also recently approved. The work plan allows BGCA to re-palletize, re-warehouse, and over-pack chemical munitions. Re-palletizing and re-warehousing includes the replacement of degraded pallets and relocation of munitions inside the igloo. Over-packing involves the placement of leak or compromised munitions into a sealed container and movement of said munitions to a separate igloo. These activities help to maintain safe storage conditions for the munitions until they are destroyed at the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP).

Both work plans were made available at the facility’s repositories for comment from stakeholders. The division did not receive any comments during the public comment period and issued letters of approval.
BGCAPP UPDATE

Current construction at Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) is primarily focused on the munitions demilitarization building (MDB), the control and support building, the utility building (UB), and the Super Critical Water Oxidation (SCWO) building.

Ongoing construction in the MDB consists of placing interior wall panels and reinforced steel and embeds for the second level. They are also working on concrete placements. In the control and support building crews are currently installing cable trays and tray supports, HVAC transfer ducts and fire alarm conduits. They are working on boilers and support equipment, piping, and interior lighting in the UB, and have begun installing the concrete foundation in the SCWO building.

As construction continues, BGCAPP development employs 864 workers in Richmond, Kentucky, 668 of which are from the local area. Another 196 staff members exist from locations outside of Richmond, including Pasco, Washington; San Diego, California; Columbus, Ohio; and Frederick, Maryland. In addition to creating a great deal of local jobs, the project has contributed over $70.1 million to Kentucky companies with $42.5 being spent in Madison and surrounding counties. Projected economic contributions for the remainder of the project are very promising.

BGCAPP is committed to striving for a low negative economic impact. They intend to save approximately $10 million by reusing Enhanced On-site Containers (EONCs) from closing chemical stockpile disposal facilities in Arkansas and Alabama. EONCs protect the environment and workers in the unlikely event of a leak by containing the agent. Munitions will be placed in the EONCs to be transported from storage to the demilitarization facility. It has been confirmed that these EONCs were never exposed to chemical agent; however, before being shipped to Kentucky each will be emptied and cleaned in accordance with the regulations. BGCAPP began receiving EONCs in December 2010 in preparation for facility operation.

Many Agencies Combine to Achieve a Common Goal

The Blue Grass Army Depot (BGAD) is a diverse and active property covering over 23 square miles. Multiple tenant organizations including the Kentucky National Guard, Army Reserve, Contracting, Civilian Personnel, the Blue Grass Chemical Activity, and the Blue Grass Chemical Agent Destruction Pilot Plant (BGCAPP) work through the depot environmental office concerning environmental matters.

The primary mission of the Depot is to provide industrial support to the nation’s military in the form of conventional munitions, vehicle armor, and chemical defense equipment. Throughout the receiving, storage, manufacturing, and shipping processes, Depot employees and environmental regulators are mindful of good practices supported by the permits. Training programs ensure that employees abide by safe and environmentally friendly procedures while performing their job duties. Army regulations and standard operating procedures are the core of these good habits, but environmental regulations also provide the additional layer of protection similar to a hand wearing a glove.

The Kentucky Department for Environmental Protection partners with the BGAD environmental office by undertaking permitting activities through the state divisions of air, water, and waste management. Ongoing permitting actions, inspections, and sometimes corrective action ensure that our organizations are continually working toward the shared goals of protecting human health and the environment. Some recent accomplishments concerning BGAD include approval of the work plans for x-ray assessment of chemical projectiles, stockpile maintenance, and TNT washout lagoon corrective action. Recent submittals for the Research Development and Demonstration Permit for chemical weapons destruction include containment calculations for the hydrolysate storage area, and metal parts treater design drawings. The Division for Air Quality renewed title V permits for BGAD and BGCAPP, and the Division of Water issued a temporary permit concerning the TNT washout facility. Closure was recently granted for a molten salt oxidation unit and the Blue Grass Chemical Activity has been working toward a long term improvement for chemical agent monitoring.

Partnering meetings are held periodically between regulators, the Army Corp of Engineers, Department of Defense facilities, and contractors. These meetings help to facilitate permitting and cleanup activities.
BGAD Section Welcomes New Employee

In May, George Partridge started his new position as an Environmental Engineer Assistant for the BGAD Section of the Hazardous Waste Branch. The Tuscaloosa, Alabama native earned degrees at the University of Alabama and the University of Tennessee.

George brings a wealth of experience to the team with his previous work experience that includes the Kentucky Division of Water, Penn State, and Texaco Research & Development.

George and his wife Jan enjoy outdoor activities that include hiking, camping, visiting state and national parks. Home and their rescued pets are very special to them. Growing up with family in Kentucky, Georgia, and Alabama, George is delighted to be serving in the environmental field in Kentucky.

Welcome to the team George! We look forward to your contributions to the project.

KDEP Deputy Commissioner Retires

The Kentucky Department for Environmental Protection would like to wish Valerie Hudson, P.E. the best in her retirement from seven years as deputy commissioner.

Hudson began her career in 1979 in the water division of U.S. EPA - Region 4 writing NPDES Permits for facilities in Kentucky. Following that she worked for 12½ years in the Natural Resources and Environmental Protection Cabinet and served as the cabinet’s permitting coordinator. From 1994 to 2004, Valerie was the environmental manager at Gallatin Steel Co. located in Warsaw, Kentucky.

Hudson also served on the Kentucky State Board of Licensure for Professional Engineers and Land Surveyors from 1998 to 2005 as well as being a member of the Kentucky Emergency Response Commission and the Chemical Demilitarization Citizens’ Advisory Commission.
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Madison County as seen from the Pinnacles at Indian Fort Amphitheater

Photographs courtesy of ACWA, BGCAPP, CMA, and KDEP