

DEMIL DISPATCH

BGAD Project

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Funding Ups and Downs for Blue Grass and Pueblo

By: John Jump

Currently, the nerve agents VX and GB, and the blister agent H are stockpiled at eight sites in the United States. The stockpile at the Blue Grass Army Depot consists of 8-inch GB projectiles, 155-millimeter VX projectiles, 155 millimeter H projectiles, GB/VX M55 and M56 warheads, one ton containers containing GB and 3 gallon VX/H DOT bottles. The Pueblo Chemical Depot's stockpile consists of HD cartridges and projectiles and HT cartridges. These munitions are required to be

destroyed by the Chemical Weapons Convention (CWC), an international treaty, by April 2012.

Neutralization was chosen as the method to destroy the stockpiled nerve and blister agents at Pueblo and Blue Grass. A Department of Defense (DOD) contract to begin the design of the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) was awarded in September of 2002 to Bechtel National. In June 2003, a contract was awarded by the Defense Department's Assembled Chemical Weapons Alternatives (ACWA) program to Bechtel National and Parsons Infrastructure and Technology Group to support the design and building of the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP).

Funding for the PCAPP was cut from \$151.7 million to about \$5 million in early 2004. Approximately \$50 million in funding was restored after negotiations with Congress late in 2004. The BGCAPP will share some of the design from PCAPP. The Army announced on Jan. 19, 2005 that it was directed by DOD to evaluate moving some of the chemical weapons stockpile to other disposal

sites with the goal of developing alternatives to meeting the April 2012 deadline to

destroy all of the chemical weapons stockpiles. As of
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Igloos like this one located at the Blue Grass Army Depot house Kentucky's share of the nation's chemical stockpile.

Barrett Leaves for Afghanistan

By: Shannon Powers

Tim Barrett, a geologist with the BGAD Project Team, was mobilized to active military duty recently. Barrett, who was promoted to lieutenant colonel with the Kentucky National Guard on April 14, has been deployed to Camp Shelby, Miss., with 96 other Kentucky guardsmen, senior officers and enlisted soldiers for the beginning of their 1 ½ -year tour of duty, which will take them to Afghanistan. At Camp Shelby, the soldiers, who should arrive in the Middle Eastern country in mid-July, will be completing mobilization training that will enable them to become

embedded with the Afghan National Army. Their mission is to assist, advise, and train Afghan infantry soldiers at the brigade, battalion and company levels.

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Geologist Tim Barrett

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There's Something About Air Permits

By: Brian Ballard

What is the purpose of an air quality permit?

This question can be answered by first defining what an air quality permit is. An air quality permit is a legal document issued by a governmental entity to an applicant that grants permission to construct or operate a source of air pollution. The permit is a contract between the source of air pollution and the community, where government represents the community. The permit translates broad regulatory requirements into specific requirements for individual emission units.

In Kentucky, the air quality permitting authority is the Kentucky Division for Air Quality (DAQ), which is part of the Kentucky Department of Environmental Protection (KDEP). The legal basis for DAQ to issue air quality permits is federal and state legislation designed to protect air quality. The Clean Air Act (CAA) is the statute or law passed by the U.S. Congress that establishes the scope of clean air management and provides authority to implement and control air emission standards. There are also statutes or laws established by the state of Kentucky and some local areas within the state that are designed to protect air quality. The statutes do not define how air quality is to be established and maintained. The "how" is defined in regulations.

Exercising control over air emissions by implementing statutory and regulatory requirements is the purpose of the air permit programs. The type of permit required for a given source is determined by the following three basic factors:

1. The source's potential-to-emit (PTE).
2. The type of emission(s) the source can emit.
3. The status of the area in which the source is located.

The typical permit will include a source description, emission limits, compliance demonstration methods, standard conditions and general conditions. The main part, or the heart, of the permit is the emission limits. The emission limits are a key factor in establishing the compliance demonstration methods.

Compliance demonstration is the mechanism in a permit used to make emission limits enforceable. Compliance is initial, continuous and/or periodic. Compliance demonstration methods are expressed in the permit through various ways such as initial performance tests, continuous emission monitors and parametric monitoring. The point of the permit is compliance. The permit contains provisions for monitoring, record keeping and reporting so that compliance can be verified by DAQ.

In conclusion, air quality permits are the result of federal and state legislation designed to protect air quality. Regulations define how air quality is to be established and maintained. Permits translate broad regulatory requirements into specific requirements for

individual emission units. The heart of air quality permits are emission limits. Emission limits are made enforceable through compliance demonstration. Compliance demonstration is accomplished through testing, monitoring, record keeping and reporting specified in the air permit.



Brian Ballard, an engineer with the Division for Air Quality (DAQ), goes over the air permits for the BGCAPP.

KDEP Attends Design Presentation

By: Eric Ringo

Kentucky Department for Environmental Protection (KDEP) representatives attended a design presentation on a portion of the proposed Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP). Bechtel Parson Blue Grass (BPPG) conducted the presentation on Feb. 15, 2005, and hosted the Kentucky attendees at the BPPG office in Richmond, Ky. The multimedia presentation

included a telephone conference link with sites across the country.

The subject of the 8-hour presentation was the intermediate (60 percent) design of the Munitions Demilitarization Building (MDB). The MDB, the heart of the BGCAPP, is where the chemical weapons are disassembled and neutralized.

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KDEP Attends Design Presentation

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The primary presenter was BPBG Design Build Manager Chris Haynes, who had support from other members of the BPBG team.

KDEP representatives were John Jump, Tim Barrett, Bill Buchanan and Eric Ringo from the Division of Waste Management, and Brian Ballard from the Division for Air Quality. Nationwide, there were representatives from Blue Grass Army Depot, the Program Manager for Assembled Chemical Weapons Alternatives (PMACWA), the National Research Council, the U.S. EPA Region 8, Colorado Department for Environmental Protection, Bechtel Parsons Blue Grass, the Army Corp of Engineers, FOCIS and Mitretek and Army Material Safety Analysis Activity.

FOCIS and Mitretek are support contractors to PMACWA. Mitretek is also performing an independent assessment of the BGCAPP design for the Department of Defense.

The presentation began with a site layout. Environmental permitting status was reviewed. Technical risk reduction programs for specific components were reviewed. Agent monitoring and analysis was covered. BPBG then presented a room-by-room design review. Three-dimensional modeling was used extensively to show the layout of process equipment, tanks, piping,

conveyors, pollution control systems and container storage areas. Multiple angles and “zoom-ins” of equipment were shown along with commentary on design issues and solutions. Several animations of equipment also were played.

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January 2005, approximately 34 percent of the U.S. stockpile has been destroyed. The public and Congress have been outspoken against shipment of chemical munitions. Republican and Democrats, representing their constituents in Kentucky and Colorado, have been very vocal in their desire to restore funding and get chemical munitions destruction at Blue Grass and Pueblo back on track. Locally, Richmond officials have passed an ordinance making it illegal to transport chemical weapons on city streets.

Funding was cut in early 2005 with concerns that the BGCAPP was exceeding original estimates of \$2 billion by as much as \$400 million and that the PCAPP was exceeding its original estimate of \$1.5 billion by as much as \$1 billion. Site work was not begun in January as planned. Work has begun to make changes to the designs of the PCAPP and BGCAPP to attempt to get costs back to the original estimates. Design

Many of the designs are improvements based on lessons learned from already built (and decommissioned) chemical demilitarization facilities, such as JACADS, located on Johnston Atoll. This intermediate design of the MDB involves approxi-

alternatives, such as downsizing, are being considered.

Although some funding was available to continue work, there was concern there would not be funding beyond March 31, 2005. Community organizations in both states voiced concerns to their respective senators and representatives, who helped to turn the funding problem around. U.S. Sen. Mitch McConnell (R-Ky.) recently tacked on a provision to a spending package that would require DOD to release past frozen funds.

Necessary funds are now flowing into the Blue Grass and Pueblo projects. During the next several months as Congress works on the President's 2006 budget, officials will reveal how much funding is available for the destruction of chemical weapons in Kentucky and Colorado and what priority the nation places on meeting its commitment to local and international communities.

mately 96,000 square feet of floor, 3,362 individual instruments, 107,000 feet of pipe, 12,000 cubic yards of concrete, and 1,400 tons of steel.

The Department of Defense has requested that PMACWA and BPBG revisit the design using new guidelines while looking for opportunities to cut costs of the BGCAPP. The presentation included discussions of where opportunities may exist to reduce cost. This included cutting a number of duplicate components, replacing some conveyor systems with forklifts. It also included scaling back the Dunnage Shredding and Handling System that is designed to treat some of the secondary hazardous waste generated during processing.

BPBG is currently working on a new, scaled-back MDB design. It is scheduled for intermediate design completion in early 2006.

KDEP found the presentation conducive to the understanding of the BGCAPP facility and neutralization process. Representatives were able to ask questions in order to understand the tremendous amount of information presented. KDEP appreciates the amount of thought, organization and engineering talent being put into designing a facility to treat Kentucky's very dangerous hazardous waste in the safest manner possible.



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Barrett Leaves for Afghanistan

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Barrett said that he will be a company team chief embedded with about 100 Afghan soldiers. He and a staff sergeant will be the only Americans with these troops 24 hours a day, seven days a week. They will be conducting combat and humanitarian missions on a routine basis throughout the country.

“We will be working every day to gain the trust of our Afghan soldiers, village leaders and citizens. Once I get into these missions, I would appreciate those back home assisting me with goodwill items to give to the Afghan people to show that Americans are trustworthy,” said Barrett.



The latest overall site plan for the BGCAPP, dated January 21, 2005. The plan is subject to change with redesigning efforts to lower the cost of the overall demilitarization of the chemical weapons.