



DEMIL DISPATCH

BGAD Project

Volume 5
Issue 1
March 2009

MD Building Concrete Pours Begin at Depot

By: Bill Buchanan

On Feb. 25, concrete pour number 12 for Blue Grass Chemical Agent-Destruction Pilot Plant took place for the Munitions Demilitarization Building (MDB). Division of Waste Management Inspector Bill Buchanan oversaw the early morning pour, which was the second in a series of pours expected to take place in the

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Getting a break in the weather, BGCAPP construction crews completed two concrete pours in February on the Munitions Demilitarization Building (MDB). Work on each of the pours began around 4 a.m. Between the two pours, over 600 cubic yards of non-blast concrete was placed in the MDB, the BGCAPP's main processing building.

Operation Swift Solution is Nearly Complete

By: Bill Buchanan

Operation Swift Solution (OSS), the operation to rid Blue Grass Army Depot (BGAD) of the three one-ton containers filled with GB (sarin) nerve agent mixture, is nearly complete. Approximately 160 gallons of mixture was treated under the authority of a Temporary Authorization Request (TAR), a provision in the Resource Conservation Recovery Act (RCRA) that grants authority to perform treatment of hazardous wastes without having to

modify the facility permit for a one-time activity. The treatment actions were performed by personnel from the Edgewood Chemical and Biological Center from Aberdeen Proving Ground in Maryland.

Treatment operations began on Nov. 12, 2008. Consisting of neutralent, decontamination solutions and rinsate, nearly 8,000 gallons of hydrolysate was generated during the process. The shipment of hydrolysate

to Veolia Environmental Services in Texas was completed on Feb. 26. Analytical testing showed that all liquids shipped off-site were below the agent destruction target levels of 99.9999 percent, required by KRS 224.50-130, which translates to a level of 60 parts per billion or less.

The solid wastes and one-ton container halves were decontaminated and air-monitored down to a level of (Continued on Page 2)

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<1 VSL (vapor screening level), which translates to 1 STEL (short term exposure limit) OR A LEVEL OF 0.0001 mg/m³. Over 50 drums of solid waste, generated during the process, were shipped to Veolia. The one-ton container halves

have been shipped to Rock Island Arsenal, Ill., for smelting and recycling.

Following treatment operations, decontamination rinsate samples were collected from the treatment equipment and secondary

containment berms and were analyzed for GB. All samples tested below the Army drinking water standard of 20 parts per billion.

BGAD submitted an OSS closure package to the Division of Waste Management (DWM) for final approval on March 25. Approval of the breakdown and removal of equipment and materials used during the operation has been given by DWM. The equipment and materials, including the chemical agent transfer system (CHATS), will be transported back to Aberdeen

Proving Ground for use in other government operations.

Once all equipment and waste has been removed from the site and clean closure has been established by site inspection, DWM will send BGAD a clean closure verification letter to officially complete OSS.

"Overall, this operation has demonstrated that chemical warfare agents can be effectively treated using the neutralization process," said DWM Inspector Bill Buchanan, who oversaw OSS for the division.

BGAD Briefings

—Lease Meyers has left the BGAD Section and the commonwealth of Kentucky after over a year of service. On March 3, Meyers started a new position in her home state of Missouri as an environmental engineer for the Division of Water.

—In February, Jim Fritsche retired as the site project manager for the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP). Ralph Collins, deputy site project manager, has assumed the duties as acting site project manager until Fritsche's replacement, Jeff Brubaker, arrives in Richmond, Ky. in late July. Brubaker is the site project manager for the Newport Chemical Agent Destruction Facility in Indiana where over 1,200 tons of VX nerve agent has been destroyed using a similar neutralization program as that proposed for BGCAPP.

—The National Resource Council has released a report on explosive destruction technologies (EDTs) that could possibly be incorporated into the BGCAPP design. The Program Manager for Assembled Chemical Weapons Alternatives (PMACWA) requested the study and subsequent report to see if any EDTs would be feasible for the processing of leaking munitions, mustard-filled projectiles, and noncontaminated rocket motors. The report highlights three vendor-supplied detonation technologies: DAVINCH (detonation of ammunition in a vacuum integrated chamber), CDC (controlled detonation chamber) and Dynasafe static kiln. PMACWA will seek formal input from the Richmond community regarding the implementation of the EDTs in the future.

MD Building

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construction of the MDB over the next two years.

This pour consisted of over 350 cubic yards of concrete being poured around a maze of rebar and structural steel. The pad, which was placed by a pump truck being continuously fed by more than 16 rotating concrete supply trucks, was over 3 feet thick and will provide non-blast support for processing in the MDB.

Once the concrete was placed, it was vibrated to ensure there were no void spaces in the sub-grade areas and to limit air pockets, which could lead to cracks or

failures in the future. All batch testing for parameters, such as air content, temperature and consistency, was performed at the plant by Bechtel Parsons Blue Grass and concrete plant representatives.

Quality assurance personnel and facility construction engineers oversaw the quality assurance portions of the pour, and the U.S. Army Corps of Engineers representatives were present to evaluate the engineering portions of the pour. In all, over 50 personnel from various participating agencies were on site to take part in the pour.



**Kentucky Department for
Environmental Protection
BGAD Section**

200 Fair Oaks Lane, 2nd Floor

Frankfort, KY 40601

PHONE: 502-564-6716

WEB: www.waste.ky.gov

E-MAIL: shannonl.powers@ky.gov

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BGCAPP Piping and Instrumentation Diagrams Submitted to KDEP

By: Leasue Meyers

On Jan. 22, the Kentucky Department for Environmental Protection (KDEP) received a large submission of piping and instrumentation diagrams (P&IDs) from the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP). The P&IDs were required to be submitted to KDEP under the

Research, Development and Demonstration (RD&D) Permit compliance schedule.

Approximately 300 P&IDs were submitted, representing the agent neutralization system, the energetics batch hydrolyzer, the Munitions Demilitarization Building HVAC system, the water system, the offgas treatment

systems, cooling systems and various other systems. KDEP is currently reviewing the diagrams.

The RD&D permit contains 30 compliance schedule items to be submitted and reviewed by KDEP. The majority of the compliance schedule items must be approved by KDEP before the

compliance action can proceed at BGCAPP. As design nears completion, BGCAPP will be submitting more compliance schedule items for review and approval.

At present, the engineering design packages for BGCAPP are 92 percent complete.