

DEMIL DISPATCH

BGAD Project

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NRC Hosts Public Forum on Possible Hydrolysate Shipments

By: Leasue Meyers

The National Research Council (NRC) hosted a public forum in Washington, D.C., on Nov. 20. The forum included presentations by Assembled Chemical Weapons Alternatives (ACWA), NRC and Noblis. Letters written by the Kentucky and Colorado Citizens' Advisory Commissions and Madison County elected officials were also presented. Representatives from Kentucky congressional

members, Bechtel Parsons Blue Grass Team, Citizens' Advisory Commissions, and Kentucky Department for Environmental Protection (KDEP) attended the forum. The focus of the public forum was to provide briefings on the future shipments of secondary waste from the Blue Grass Agent-Destruction Pilot Plant (BGCAPP) and the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP). All reports, statements, and briefing materials from the forum are on ACWA Web site.

The NRC briefing focused on their new report: *Review of Secondary Waste Disposal Planning for the Blue Grass and Pueblo Chemical Agent Destruction Pilot Plants*. The report focused on the shipment of all secondary wastes from the pilot plants, not just the possibility of shipping hydrolysate. In the report, the NRC reported 22 findings and 17 recommendations for ACWA to consider for BGCAPP and PCAPP. The NRC found that shipment of certain secondary wastes to offsite disposal facilities would provide cost and time
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These reactors are a part of the chemical agent transfer system (CHATS) used for Operation Swift Solution. They mix the chemical agents with caustic materials to make hydrolysate.

Operation Swift Solution Begins

By: Bill Buchanan

Operation Swift Solution, the process using the Chemical Agent Transfer System (CHATS) to destroy the three ton containers holding GB (Sarin) nerve agent and its breakdown byproducts at the Blue Grass Army Depot (BGAD), began on Nov. 12 and was operational daily through Dec. 19 except for a six-day break for Thanksgiving. So far, over 130 gallons of agent have been treated and destroyed to below the destruction target level of 60 parts per billion. Most of all free liquids have been removed from all three containers, and the discrepancy between what liquid volume has been treated and what was expected to be in the

containers currently exists as precipitated solids and a sludge called "heel" in the bottom of the oldest container.

Once the agent has been destroyed, it becomes neutralent, which is then sampled for Resource Conservation and Recovery Act characteristics like heavy metals and volatile organic compounds. When this neutralent is cleared below the GB treatment levels mentioned above, it is transferred from an interim bulk container to the isotainer, a large shipping container, and is termed hydrolysate. Over 2,000 gallons of hydrolysate have
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savings; however, on the shipment of hydrolysate there is citizen opposition that will need to be considered. A main finding by the NRC said the communities around Blue Grass Army Depot (BGAD) have not expressed serious concern about the disposition of secondary wastes, other than the hydrolysate, but the communities do want technical assurance the materials are not contaminated with agent before transport off-site. The NRC provided recommendations for ACWA and BGCAPP to pursue submitting the required waste analysis plan to KDEP earlier than required in the RD&D permit, continue working to identify all secondary waste streams and identify and factor into the decision-making processes the potential consequences of public opposition to shipment.

The Noblis report focused specifically on the cost of off-site shipment of agent hydrolysate. The report started with the approved 2007 acquisition program baseline, which stretched destruction out to 2023 for BGAD. After the Congressional law was changed, Noblis also developed a life cycle cost estimate for destruction to be completed by 2017. Both are presented within the report. Noblis based their assumptions for BGAD on

the current BGCAPP explosive containment room redesign and that an explosive destruction technology would be used for processing the mustard projectiles at BGCAPP. The use of an explosive destruction technology has been discussed with the communities and regulators around BGAD, but it is not a decided issue. This assumption relies on KDEP and community to add an explosive destruction technology to the permit. In determining the cost savings, Noblis performed a market survey for technologies available. Deep-well injection was presented as providing the most savings, while the cost for incineration varied greatly. After this report, a number of questions were raised on how the costs were determined and if stakeholder concerns were adequately addressed in terms of cost and position.

The Citizens' Advisory Commissions from

Kentucky and Colorado presented a joint statement that they will not compromise on the issue of shipping agent hydrolysate. The elected officials representing Berea, Richmond and Madison County presented a letter during the forum recommending abandoning all consideration of shipment of agent hydrolysate and to execute the total solution of neutralization followed by super-critical water oxidation.

Overall, the public forum provided an opportunity in gaining insight on how the NRC puts together reports, the process the reports undergo, and the opportunity to ask questions specifically to the report authors and allow interaction between the stakeholders to hear concerns and questions raised. While questions remain with all stakeholders on the shipping of secondary wastes, including the hydrolysate, the public forum

provided the opportunity to meet, present, and discuss the issues.

Operation

(Continued from Page 1) been generated so far throughout the treatment process. The isotainer will be shipped to Veolia Environmental Services, an incinerator near Port Arthur, Tx., where the hydrolysate will be incinerated in a mixture with other wastes. Only two isotainers, holding nearly 8,000 gallons of hydrolysate, are expected to be generated.

When operations resume after the holidays, the ton containers will be rinsed, decontaminated and cut in half. Once the containers are decontaminated and prepared for shipment, they will be recycled at a smelter in Illinois. All wastes generated from previous operations related to the containers as well as waste generated during this treatment operation also will be processed through the CHATS, and the resulting liquids will be disposed of in the same manner as the hydrolysate. All solids will be placed in drums and disposed of properly as well.

Operation Swift Solution is the first time that chemical agents have been destroyed at BGAD and is the first step in destroying the nearly 523 tons of chemical agents stored there.

BGAD Stores the Last of the Country's VX Stockpile

By: Shannon Powers

On Christmas Eve, the U.S. Army Chemical Materials Agency (CMA) destroyed the last VX nerve agent land mine at the Anniston Chemical Agent Disposal Facility in Anniston, Ala., making the Blue Grass Army Depot (BGAD) the location

of the last of the country's VX stockpile.

Besides Anniston, CMA and its contractors have successfully destroyed VX munitions at five other

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New People Working with BGAD Section

Keith Metzker Hired as Section Supervisor

Keith Metzker joined the BGAD Section as supervisor on Oct. 16. Previously, he worked for six years as a permit reviewer with the Division for Air Quality and for five years as a reviewer of proposed water lines and treatment plants with the Division of Water. He passed both the engineer-in-training and professional engineer exams in 2007.

The Greenup County native spent three years at

Morehead State University before transferring to the University of Kentucky where he received a B.S. in chemical engineering. He has lived in Lexington ever since.

In his spare time, Metzker enjoys traveling, whitewater rafting, bowling, racquetball, the National Hot Rod Association, science programs, science fiction programs, and University of Kentucky sports.



Keith Metzker joined the BGAD Section as supervisor on Oct. 16. He had previously worked for the Division of Water and the Division for Air Quality.

Cliff Hall to Help Section

Cliff Hall was recently promoted to an environmental scientist III within the Hazardous Waste Branch. Currently, he works with hazardous waste regulation updates, branch training, contained-in determinations, delistings, permit consistency, and maintains a project manager role at a large chemical plant in Calvert City. As part of his new position, he will be working more closely with the Blue Grass Army Depot Section and the Paducah Gaseous Diffusion Plant Section.

The Franklin native graduated from Western Kentucky

University in 1992 with a B.S. in geology and from Eastern Kentucky University in 1996 with a M.S. in geology.

His work experience includes a year at GeoSciences Design Group in Nashville, Tenn. and 10 years with the Hazardous Waste Branch as a Resource Conservation and Recovery Act corrective action project manager and an environmental scientist II.

In his spare time, Hall enjoys college football, college basketball, golf, fishing, running, and remodeling his house.



Cliff Hall was recently promoted to an environmental scientist III within the Hazardous Waste Branch. As part of his new duties, he will be assisting the BGAD Section.



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disposal sites located in Umatilla, Ore.; Newport, Ind.; Pine Bluff, Ark.; Tooele, Utah; and Johnston Island approximately 800 miles southwest of Hawaii.

CMA continues to store the remaining VX weapons at BGAD, but another Department of Defense organization, the U.S. Army

Element Assembled Chemical Weapons Alternatives, is charged with their destruction along with the stored GB and blister agent munitions.

VX is the least volatile but most potent of all chemical warfare agents. It attacks the nervous system, causing the muscles to convulse uncontrollably. Exposure can

result in loss of consciousness, convulsions, paralysis and respiratory failure resulting in death. VX is chemically similar to pesticide. It was originally developed in the early 1950s, and the original stockpile of approximately 4,400 tons was produced at Newport Chemical Depot between 1961 and 1969.

On Feb. 29, 2008, BGAD became home of the country's last remaining stockpile of nerve-agent-filled M55 rockets after Pine Bluff's facility destroyed its last one.

All 523 tons of the nerve and blister agent munitions stored at the depot are scheduled to be destroyed by 2023.