Blue Grass exchange
A Partnership for Safe Chemical Weapons Destruction

Safety and Security Essential

continued on page 2

Fall 2005
In This Issue

Blue Grass Chemical Stockpile
Outreach Office
301 Highland Park Drive
Richmond, KY 40475
(859) 626-8944
Hours 8:30 a.m.–5 p.m., M–F
Other hours by appointment
outreach@bechtel.com

Blue Grass Chemical Activity
Public Affairs Office
(859) 779-6897

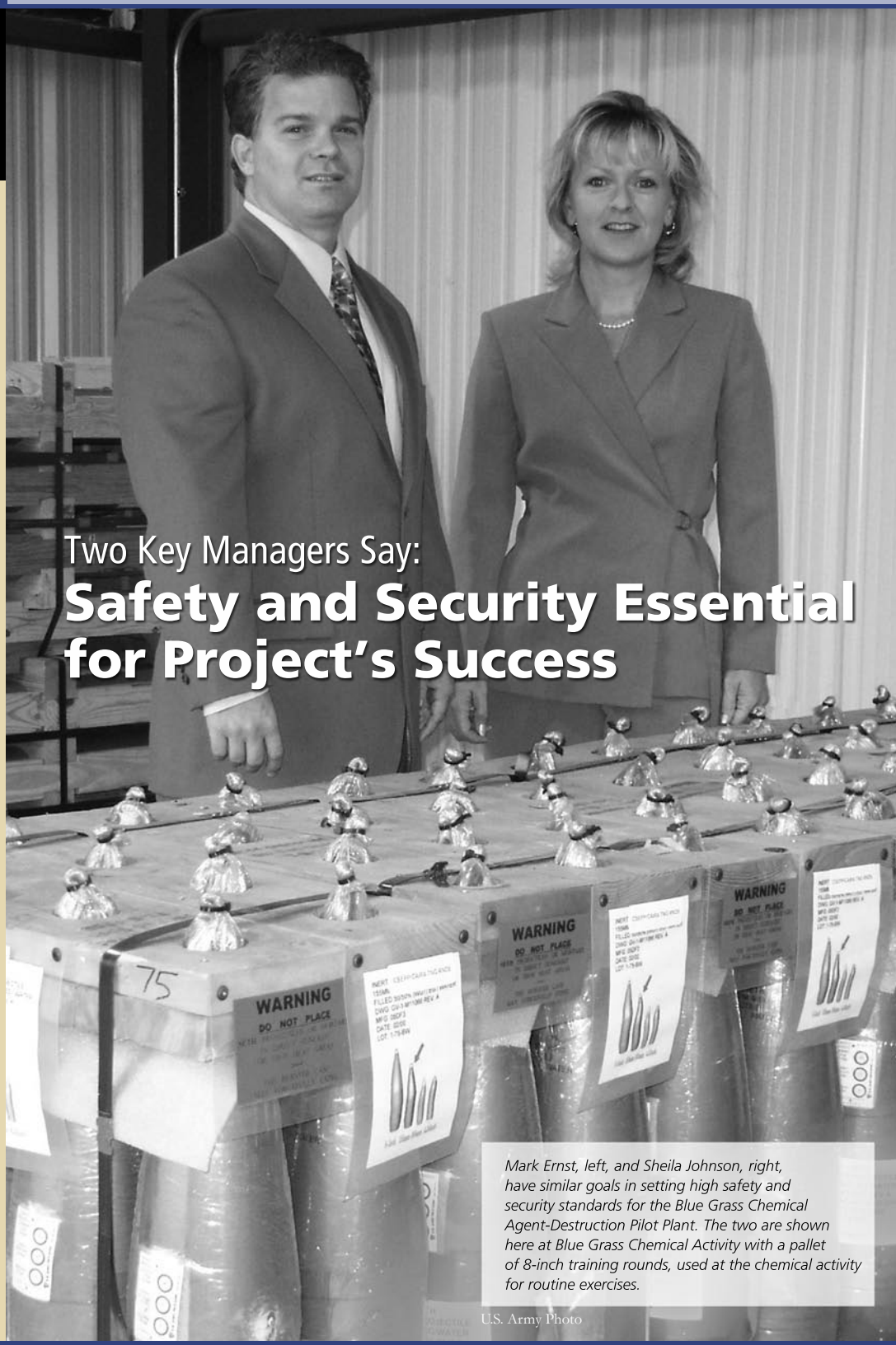
Blue Grass Army Depot Public Affairs Office
(859) 779-6221

Bechtel Parsons Public Involvement Office
(859) 625-1291

BGCAPP

Blue Grass Chemical Agent-Destruction Pilot Plant

www.pmacwa.army.mil



Two Key Managers Say:

Safety and Security Essential for Project's Success

Mark Ernst, left, and Sheila Johnson, right, have similar goals in setting high safety and security standards for the Blue Grass Chemical Agent-Destruction Pilot Plant. The two are shown here at Blue Grass Chemical Activity with a pallet of 8-inch training rounds, used at the chemical activity for routine exercises.

U.S. Army Photo

A Publication of the Blue Grass Chemical Stockpile Outreach Office

Two Key Managers Say:
Safety and Security Essential for Project's Success

"Safety and security go hand in hand in getting the job done," said Mark Ernst, safety and occupational health manager for the Assembled Chemical Weapons Alternatives (ACWA) team.

"Safety is priority one and security is equally important," said Ernst, who recently joined the government's Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) site project management staff.

Sheila Johnson, security and surety manager for the systems contractor, Bechtel Parsons Blue Grass, is one of Ernst's colleagues in "getting the job done." Both Ernst and Johnson come to the Blue Grass Project with years of experience in their areas of expertise. And both chose to live and work in Madison County because of the opportunity to do challenging work in a community of their choice.

Ernst's and Johnson's careers have intersected even before their current assignment. "As a surety specialist I was tasked with monitoring day-to-day operations and ensuring the safety and security of the stockpile [at Blue Grass Chemical Activity]," Ernst said. "Sheila used to perform chemical surety inspections at all the chemical weapons sites for the Army Inspector General's team, and we were one of the sites she inspected."

In his new role, Ernst says his priority is to identify the hazards of the Blue Grass chemical demilitarization facility and to eliminate or reduce to the lowest acceptable level any associated risks to the workers and the community. "Safe disposal of the chemical munitions will be very rewarding for all of us in Madison County," he said.

Johnson's job involves security of the workforce and the chemical demilitarization facility itself. "Mark and I both have the same goal. We will team together to make sure that BGCAPP is safe and secure."

Ernst's career at Blue Grass Army Depot and at Blue Grass Chemical Activity has been one of increasing responsibility in monitoring and inspecting both conventional and chemical weapons. When selected for the position with ACWA, he was serving as the chemical surety officer for the chemical activity and before that as safety and occupational health manager.

A native of Savanna, Ill., Ernst earned his B.S. degree from the University of Wisconsin at Platteville. He selected placement at Blue Grass Army Depot in August of 1990 after completing a rigorous 18-month formal classroom and practical hands-on, weapons-based quality assurance program with the Department of Defense (DoD). He recalls that the curriculum included all aspects of the life cycle of DoD conventional munitions, guided missiles, large rockets, toxic chemicals and nuclear weapons.

In a 15-year career, Ernst has received many awards. Perhaps the most meaningful was a worldwide award in 1996, when he was selected as quality assurance specialist of the year.

Johnson came to the project in December 2004 from an assignment with the Department of the Army Inspector General's Office at the Pentagon in Washington, D.C. She served as the Army's lead security inspector for all chemical agent demilitarization plant surety inspections, and she developed a training program for all chemical agent stockpile sites, which resulted in an increased security posture in the aftermath of Sept. 11, 2001. Additionally, she has authored articles on security at Army installations and chemical stockpile sites.

Johnson joined the U.S. Army one week after completing high school in her hometown of Rural Retreat, Va. During her 21-year military career, she was trained and has had experience in all aspects of law enforcement and physical and industrial security. While serving a tour of duty with the Army in Hawaii, she was

Continued on page 5

Citizens View Posters, Exhibits at Public Information Session

Photo by Diane Osbourne

Sixty internal and external stakeholders participated in the July 26 public information session at the Madison County Extension Center to hear project updates by the government site project manager and the systems contractor project manager and to ask questions. During the poster sessions before and after the presentations, attendees interacted with representatives from the government and the systems contractor as well as the Kentucky Chemical Demilitarization Citizens' Advisory Commission, Chemical Destruction Community Advisory Board, Blue Grass Chemical Activity, Blue Grass Army Depot, Madison County Chemical Stockpile Emergency Preparedness Program, Kentucky Division of Emergency Management and the Kentucky Department for Environmental Protection. The session was covered by the Richmond Register *and the* Lexington Herald-Leader.

Managers' Quarterly Update

By JIM FRITSCHE
Blue Grass Chemical Agent-Destruction Pilot Plant Site Project Manager

and CHRIS MIDGETT
Bechtel Parsons Blue Grass Project Manager

One of the most gratifying aspects of our work is the level of community involvement in all phases of the project and in the decision-making process. As we go about our lives and work in the community, we often meet and talk with individuals and groups who ask good questions and provide good input into the process.

We welcome your interest and involvement and hope that this column is proving to be a useful supplement to the information that you receive through other channels such as one-on-one meetings, advisory group meetings, speaking engagements and regular meetings with elected officials.

Let's begin by talking about recent project accomplishments. First, the government and contractor team are fully committed to maximum safety. We have maintained a "zero accident" safety record since the contract award just over two years ago. (Please see the feature article on page 2 that provides more detail about our goals regarding both safety and security and the people who help make this happen.)

Many of you ask, "Where is the project today?" In brief, we are evaluating 10 primary design considerations that could potentially reduce costs and improve efficiencies without compromising safety. To date, the government has accepted eight of these primary design considerations for incorporation into a redesign of the facility. This redesign has been directed by the government in order to save costs and align the program with expected out-year funding profiles. As we go forward with the redesign, we are continuing to lower the life-cycle cost of the project. We are forecasting that the systems contractor's subsequent recalculation of the design cost and schedule, or "rebaselining," will be presented to the government by the end of October. Completion of the design task is now forecast for September 2007.

In addition, the government and other key team members have evaluated the separation of rocket motors from rocket warheads as a risk reduction effort, which we referred to as "expedited removal of the rocket motors" or ERRM. We are now incorporating a rocket motor removal system as part of the design of the BGCAPP facility.

Perhaps the most frequent question that we get is, "When will you start construction?" The answer depends on funding considerations, but we anticipate that the U.S. Army Corps of Engineers will begin to cut harvestable trees on the construction site at Blue Grass Army Depot in November. We also expect that early construction on an access road into the construction site and a new depot access control facility may start sometime next year.

Let us close by expressing our appreciation to Kentucky Department for Environmental Protection (KDEP) for their teamwork and diligence in the environmental permitting process. On Aug. 30, we attended the department's public hearing on permits required for the planned destruction of chemical munitions stored at Blue Grass Army Depot. The first part of the hearing, conducted by the Division of Air Quality, sought public comment on the air quality permit for BGCAPP. Construction cannot begin until the air quality permit is issued.

Next on the agenda, the Waste Management Division presented information and asked for comment on both a modification of the hazardous waste permit and on the research, development and demonstration (RD&D) permit. The RD&D permit contains a comprehensive compliance schedule requiring submittal of additional information and approvals at set times prior to processing of hazardous wastes. One member of the public gave oral testimony and several others provided written comments.

This public hearing was an important step in the permitting process. After review and incorporation of comments, KDEP issued the permits on Sept. 30.

Near-Term Path Forward for BGCAPP

How to Get Information on Chemical Weapons Online

Are you interested in getting more information on programs related to the safe storage and destruction of the chemical weapons stockpile? The following is a list of Web sites.

Organisation for the Prohibition of Chemical Weapons

The Organisation for the Prohibition of Chemical Weapons (OPCW) is the international organization that was established in 1997 by the countries that have joined the Chemical Weapons Convention (CWC) treaty to make sure that the Convention works effectively and achieves its purpose.

http://www.opcw.org/

The U.S. Centers for Disease Control and Prevention

The Centers for Disease Control and Prevention provide independent oversight to the U.S. chemical weapons elimination program and serve as an important element in ensuring the safe destruction of chemical warfare material for protection of public health.

http://www.cdc.gov/nceh/demil/

National Academy of Sciences' National Research Council

The "Assembled Chemical Weapons Alternatives Committee to Assess Designs for Pueblo and Blue Grass Facilities" is an NRC assessment of the design of the Blue Grass Chemical Agent-Destruction Pilot Plant. The committee is part of the NAS' Board on Army Science and Technology, which serves as a convening authority for the discussion of science and technology issues of importance to the Army and oversees independent Army-related studies conducted by the National Academies. In its study oversight role, the board takes into account public policy, as well as scientific and engineering considerations.

http://nationalacademies.org/

Program Manager for Assembled Chemical Weapons Alternatives

Known as ACWA, this U.S. Department of Defense program's mission is to safely destroy the chemical weapons stockpiles located at the Pueblo Chemical Depot, Colo., and Blue Grass Army Depot, Ky. ACWA is headquartered at the Edgewood Area of Aberdeen Proving Ground, Md.

http://www.pmacwa.army.mil/

U.S. Army Chemical Materials Agency

The U.S. Army's Chemical Materials Agency (CMA) is the world leader in programs to store, treat and dispose of chemical weapons safely and effectively. The agency develops and uses technologies to safely store and eliminate chemical weapons while protecting the public, its workers and the environment. CMA also provides support to National Defense and the American Soldier through its industrial base missions. The CMA was created to incorporate the former Program Manager for Chemical Demilitarization and portions of the Soldier Biological and Chemical Command into one agency.

http://www.cma.army.mil/

Kentucky Department for Environmental Protection

The Kentucky Department for Environmental Protection's mission is to protect and enhance Kentucky's environment. The department will oversee the permitting process and final permit approval of the Blue Grass Chemical Agent-Destruction Pilot Plant.

http://www.dep.ky.gov

Chemical Stockpile Emergency Preparedness Program

The Chemical Stockpile Emergency Preparedness Program, or CSEPP (cee-sep), involves Clark, Estill, Fayette, Garrard, Jackson, Laurel, Madison, Powell and Rockcastle counties. It also involves the Kentucky Division of Emergency Management in Frankfort. Kentucky's CSEPP has received federal funding to enhance the emergency preparedness of the state, affected counties and cities. This funding has been used for equipment, personnel, training and public awareness.

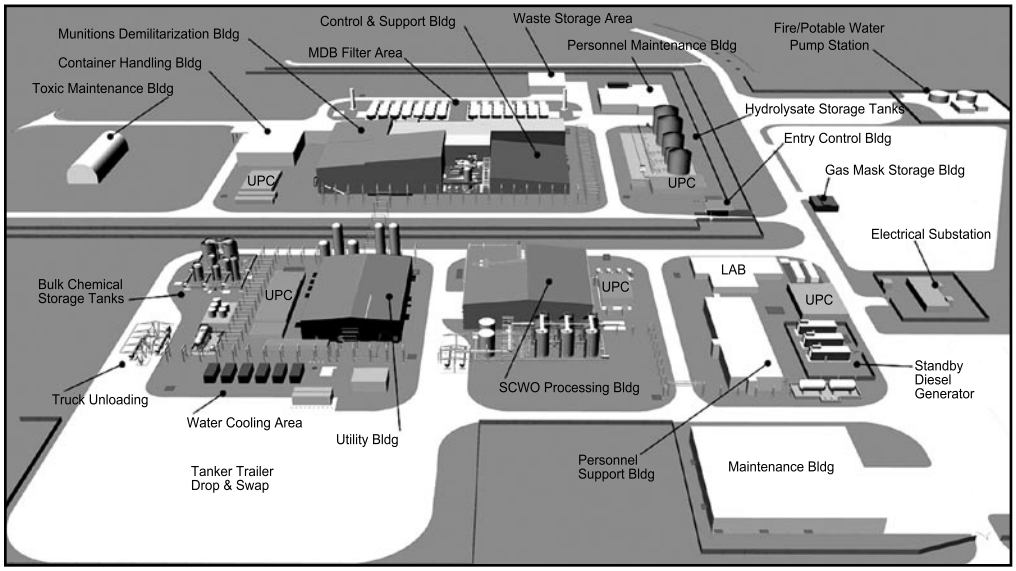
http://www.madison-county-ema.com/csepp.htm

http://kyem.dma.ky.gov/csepp

Bechtel Parsons Blue Grass

The Bechtel Parsons Blue Grass team is the systems contractor that was selected by PMACWA to design, build, test, operate and close the Blue Grass Chemical Agent-Destruction Pilot Plant. The initial task, awarded in June 2003, is the development of a design-build plan, followed by completion of the design. Subsequent phases will include construction, systemization, pilot testing, operations and closure.

http://www.bechtelparsonsbgcapp.com/



Blue Grass Chemical Agent-Destruction Pilot Plant Site Plan
September 2005

Project *News Briefs*

Employees' Good Work Earns Recognition

During this last quarter several Bechtel Parsons Blue Grass employees earned recognition for their contributions to the Blue Grass Chemical Agent-Destruction Pilot Plant. Specific instances are described below.

Successful On-Site Review for Government Property System

An on-site review Aug. 2-3 in the Richmond office by Deborah L. Totemeier, the government property administrator from Headquarters, Army Field Support Command, was a successful follow-up to approval of the Blue Grass Team's Government Property System that was issued in January 2005.

In fact, the Bechtel Parsons Blue Grass Government Property Manager, Julia Landreth, was acknowledged by Totemeier for her commitment to the project's "excellent control of government property."

As a government contractor, one of Bechtel Parsons' key responsibilities is to ensure proper use and maintain accountability of government property. Government property includes virtually all items procured with government funds: computers, vehicles, permanent plant equipment, maintenance and operations manuals, etc.

Project Team Makes Presentation at Tri-Services Conference

Gary Cough and Bob Kistler, both Bechtel Parsons Blue Grass engineers, and a colleague, Wes Turner, with the Corps of Engineers, Huntsville Center, delivered a presentation, "Minimizing Construction Rework During Process Facilities Design" at the National Defense Industry Association's Tri-Services Conference in St. Louis, Mo., on Aug. 3. The Tri-Services Conference, held annually, promotes exchange of ideas and knowledge within the technical community and includes representatives from the Department of Defense, other government agencies and the private sector.

Cough is a construction project field engineer and Kistler is a systemization engineer. Turner is the Corps' Blue Grass Project facility design liaison. All three have extensive experience in chemical demilitarization and have worked at Anniston, Ala.; Johnston Island in the South Pacific and on the Russian project.

Team Wins Award for Innovation

Washington Group International's prestigious Lion's Award for Innovation was presented to Ron Hawley, Roger Dickerman, Bob Kistler, Bruce Ratcliff, David Richards, John Dawson, and Dennis Caplette of the Bechtel Parsons Blue Grass Team. The award was presented for innovative input to the design team for the Blue Grass Chemical Agent-Destruction Pilot Plant. This team used knowledge of chemical weapons processing, gained by hands-on experience and lessons learned from other demilitarization facilities, to improve the safe and efficient design of the main processing facilities. These innovations have resulted in improved operability and cost savings to the pilot plant project. The awards were presented to the Bechtel Parsons team members in Washington, D.C., July 28.

Photo by Sandra Plant

Three Madison County students were selected to receive Bechtel Parsons Blue Grass corporately funded scholarships. Left to right are Laura Cook, Kristeena Winkler, and Ashley Hurlburt, each of whom received $1,000 for the current academic year. Each student is a 2005 graduate of Madison Central High School and currently attends Eastern Kentucky University. A reception was held recently at the Bechtel Parsons Blue Grass project office for the students and their families. They met with project staff, who offered encouragement for a successful first year in college.

Safety and Security *Continued from page 2*

nominated by the provost marshal from among 500 other security professionals as the command's "TOP COP" in the Hawaii State Law Enforcement Officers Association annual awards program. She is an active member of the American Society of Industrial Security (ASIS) and is board certified as a Physical Security Professional by the Professional Certification Board of ASIS International.

Ernst and his wife, Carrie, are expecting their first child in February. The two are sports enthusiasts and enjoy attending football and basketball games at both Eastern Kentucky University (EKU) and the University of Kentucky. You might also see them at Lexington Legends games and at Keeneland Race Course during the season.

Johnson bought a home near her work site that she shares with daughter, Aereal, a student at EKU. "We specifically wanted to come here because of the community and the small town atmosphere," she said.

Ernst and Johnson are working closely with all project partners who have responsibility for safety, security and surety. Bill Fischlein, Director of Law Enforcement & Security for Blue Grass Army Depot, is a key player. They will also be interacting with at least two other systems contractor officials: Nevin Thomas, Bechtel Parsons safety manager, and Roger Dickerman, Bechtel Parsons operations manager.

Citizen Board Members Give Views on Design Considerations

Nineteen members of the Chemical Destruction Community Advisory Board (CDCAB) met on July 19 as an ad hoc working group to review and provide public input on two important design considerations. The working group discussed the option of shipping chemical agent hydrolysate and energetics hydrolysate off-site for further treatment and assessed a proposal for expedited separation of the rocket motors from the warheads as a risk reduction effort.

Jim Fritsche, the government's site project manager, and Chris Midgett, the systems contractor project manager, provided the group with a technical overview on the approach to separate rocket motors containing propellant from warheads that contain nerve agent. The presentation also included a list of potential methods for destroying and disposing of the rocket motors and propellants.

At the conclusion of the meeting, two formal recommendations were approved by the CDCAB and submitted to the Program Manager Assembled Chemical Weapons Alternatives for use in the decision-making process.

1. "All agent and energetic hydrolysate generated at the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) should be treated on-site via the secondary treatment process (super critical water oxidation – SCWO) identified in the 2003 Record of Decision."

2 "If, based on a preponderance of evidence …, the conclusion is reached that it is necessary to separate the rockets, the CDCAB will work with the Army to facilitate accomplishment of that objective."

The group also expressed their appreciation of the government's continued commitment to public involvement.

CDCAB Co-Chair Kent Clark, Madison County judge-executive, told the group, "We want to make sure that this [process] will be in the best interest of the depot, the workers and the community. If a decision is made, we [CDCAB working group] want to be a part of it. We want to know what is going on."

Photo by Diane Osbourne

L to R: Jeanne Hibberd, Berea civic representative; Doug Hindman, Citizens' Advisory Commission representative; Craig Williams, Chemical Weapons Working Group; Madison County Judge-Executive Kent Clark; and Carl Richards, Madison County Emergency Management Agency. Judge Clark and Williams are co-chairs of the advisory board.

Photo by Diane Osbourne

Dr. Robert Miller, standing at center, makes a point during the Chemical Destruction Community Advisory Board meeting on Sept. 13.. To Dr. Miller's right are the two advisory board co-chairs, Judge Kent Clark and Craig Williams. To his left is Tim Thomas, deputy commissioner of the Kentucky Public Protection Cabinet. The group heard project and design consideration updates.

Stay Informed; Stay Involved

Public Invited to Next Advisory Board Meeting

December 6, 1:30 - 3:30 p.m. The Chemical Destruction Community Advisory Board (CDCAB) will hold its eighth quarterly meeting in Studio A on the first floor of the Perkins Building at Eastern Kentucky University.

The Kentucky Chemical Demilitarization Citizens' Advisory Commission will meet following the CDCAB meeting. The public is invited.

Citizen *Exchange*

Citizen Exchange focuses on questions frequently asked by members of the community. If you have a question you would like to have answered in this section, please send it to Editor, Blue Grass ***Exchange***, ATTN: Bechtel Parsons Blue Grass, 301 Highland Park Drive, Richmond, KY 40475. You may also send questions via e-mail to outreach@bechtel.com. We hope you find this section informative and useful in understanding the efforts to safely destroy the chemical weapons stored at the Blue Grass Army Depot.

Question: What is the status of the environmental permits for the chemical munitions stored at the Blue Grass Army Depot?

Answer: There are three main permitting activities that affect the chemical weapons stockpile. The draft Research Development and Demonstration permit was issued for Public Comment July 17. The draft Clean Air Act Permit was issued for Public Comment July 29. These two permitting actions are for construction, systemization and pilot testing phases of the Blue Grass Chemical Agent-Destruction Pilot Plant. A third permit modification to the Blue Grass Army Depot's existing hazardous waste permit will cover the storage of the chemical weapons and related hazardous waste. A public hearing for all three permit actions was hosted by the Kentucky Department for Environmental Protection Aug. 30. The public comment period closed Aug. 31. The Commonwealth of Kentucky awarded the RD&D permit and a modification to the hazardous waste storage permit on Sept. 30.

Question: Do you have any updated information related to the fires that have occurred during the destruction of M55 rockets at chemical weapons destruction plants in Arkansas and Oregon?

Answer: Preliminary investigations on nine disassembled rocket motor assemblies sent from the Umatilla Chemical Depot, Ore., to Picatinny Arsenal, N.J., have confirmed the migration of nitroglycerin (NG) through the inhibitor layer on the exterior of the rocket motor grain to the annular space between the rocket motor and the steel tube housing. While yet to be confirmed as the root cause of the increased frequency of fires, NG is very sensitive and a potential cause of the fires when pinched between the steel case and rocket grain during shearing operations. Fires, if related to the presence of NG, appear to be random events. Other preliminary data indicated that the rockets are safe in storage, transport and handling in support of the demilitarization process. Further analysis is under way and must be completed before a definitive conclusion can be stated.

Preliminary conclusions on the tests conducted to date show a migration of diluted NG in all nine cases. While this migration renders the inhibitor layer more sensitive, testing also found that the propellant grain and inhibitor layer are insensitive to friction and electrostatic discharge. Residual stabilizer is well within required levels.

In addition, a second group of nine rocket motor assemblies were separated from their corresponding M55 rockets at Pine Bluff Arsenal in August and shipped to Picatinny Arsenal, N.J., for testing. At Picatinny, they will undergo tests similar to the nine rocket motor assemblies that arrived from Umatilla Chemical Depot, Ore., in June.

All testing is a part of the ongoing investigation conducted by the U.S. Army Chemical Materials Agency's rocket task force that is performing an in-depth investigation into fires that occurred at its Umatilla Chemical Agent Disposal Facility (UMCDF) in Oregon and Pine Bluff Chemical Agent Disposal Facility (PBCDF) in Arkansas. The fires occurred while processing drained GB-filled M55 rockets in an Explosive Containment Room designed specifically to contain such an event.

A diversified team at Picatinny Arsenal is conducting tests on the M28 propellant grain.

Continued on page 8

Neighbors Get Update at Roundtable Luncheon

Photo by Diane Osbourne

Representatives of neighboring businesses around the project office at 301 Highland Park Drive in Richmond were guests at the September 8 community roundtable luncheon. After a brief project update from Chris Midgett, Bechtel Parsons Blue Grass project manager, the neighbors had the opportunity to talk with and ask questions of Midgett; Jim Fritsche, ACWA site project manager; Col. Rick Mason, commander of Blue Grass Army Depot; and Lt. Col. George Shuplinkov, commander of Blue Grass Chemical Activity. From left to right are Col. Mason; Elizabeth Robinson and John Rader, both of Kentucky Farm Bureau; and Lt. Col. Shuplinkov.

Citizen Exchange

Continued from page 7

The tests will involve compositional analysis, sensitivity (friction and impact) testing, inhibitor layer testing, and other tests on the M62 igniter. A preliminary report on the Umatilla findings was issued in August 2005 A similar report can be expected on the Pine Bluff rockets this fall, with both reports eventually combined into a final report.

The in-depth investigation started after fires at the Umatilla and Pine Bluff facilities in April and May 2005. Since then, these sites have experienced more fires. Umatilla had one on July 29; Pine Bluff had two, one during maintenance operations on July 17 and another with rockets on Aug. 13. In all cases, there was never any danger to personnel or any release of agent to the environment.

Question: I understand that there was a leak involving mustard agent?

Answer: Blue Grass Army Depot officials have confirmed the detection of mustard agent vapor in a second chemical weapons storage structure (igloo) containing projectiles in early August. The agent vapor was detected and confirmed using gas chromatographs that detect agent at extremely low levels.

This was the second mustard agent leak detected recently. Army officials later confirmed that two projectiles filled with mustard agent were located and placed in leak-proof overpack containers. The leak was detected July 19 inside a chemical weapons storage structure (igloo) containing several thousand projectiles.

The overpacked projectiles remained inside the igloo for three days while the filtered igloo was repeatedly monitored with a gas chromatograph to ensure that no other projectiles were leaking. The overpacked munitions were then moved to another storage igloo used specifically for the storage of overpacked mustard munitions.

During these events there was no danger to the community and local and state emergency preparedness officials were kept informed of the situation at all times.

The mustard projectiles were first shipped to Blue Grass Army Depot in 1944.

Blue Grass Chemical Stockpile
Outreach Office
301 Highland Park Drive
Richmond, KY 40475

Blue Grass Chemical Agent-Destruction Pilot Plant