



Blue Grass Chemical Agent-Destruction Pilot Plant

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**A Partnership for Safe Chemical Weapons Destruction**



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## **Preliminary assessment shows solidified mustard agent in Blue Grass chemical weapons stockpile**

*Army briefed community stakeholders at public meeting today*

Army leadership at the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) has long been aware that aging mustard munitions could pose a problem with the current plan for destroying the agent utilizing neutralization followed by supercritical water oxidation. Preliminary results of an assessment of the mustard projectiles indicate that destruction of this portion of the Blue Grass stockpile using current plans could be difficult.

On Sept. 13, Army officials briefed the Kentucky Chemical Demilitarization Citizens' Advisory Commission and the Chemical Destruction Community Advisory Board (CAC/CDCAB) on the preliminary results of the X-ray assessment conducted at the Blue Grass Army Depot. The assessment, which began in May, analyzed a sample of mustard (H) projectiles to understand what portion has the presence of solidified mustard agent, or "heel," in the weapons. The preliminary data conservatively shows 85 percent of non-leaker weapons sampled had at least 30 percent solidification. The final X-ray assessment results are expected to be available in October 2011.

The presence of heel in mustard projectiles stored at other facilities across the country has led to complications and delays in the destruction process because solidified mustard agent is difficult to remove. Specifically at Blue Grass, the presence of solidified agent could pose a technical challenge for BGCAPP agent removal technology — a fully automated process using robots and machines designed to combine agent access, draining and washout into a single operation. If the presence of heel makes the removal of agent challenging, complications with the neutralization process equipment are likely to result, thereby significantly lengthening the overall destruction process timeline.

The Assembled Chemical Weapons Alternatives (ACWA) program provided the CAC/CDCAB a briefing on explosive destruction technologies (EDTs) as a possible means to process problematic munitions. ACWA began discussions with the CAC/CDCAB about the potential use of an EDT application at Blue Grass in early 2009. These discussions will continue now that the preliminary X-ray assessment data shows a large percentage of mustard projectiles contain a significant amount of solidified agent.

Now that Army leaders better understand the extent of heel in the weapons, they can use this information to detail a plan for a safe and efficient demilitarization approach for the mustard projectiles. To accomplish this, the Army will reach out to the scientific community and industry experts at other chemical demilitarization sites and to the local community.

"Community involvement has always been the cornerstone of the ACWA program," said Jeff Brubaker, BGCAPP site project manager. "Just as the community was involved in the decision-making process for BGCAPP's main demilitarization technology, we want everyone to be able to understand and provide feedback on every step of the decision-making process."

In the meanwhile, the BGCAPP team is almost 40 percent complete with plant construction. The data described above will not alter construction plans in the near term as more than 85 percent of the Blue Grass stockpile contains agent other than mustard, which should not exhibit solidification.