

FINDING OF NO SIGNIFICANT IMPACT

ENVIRONMENTAL ASSESSMENT, PROPOSED INSTALLATION AND OPERATION OF AN EXPLOSIVE DESTRUCTION TECHNOLOGY FACILITY AT THE BLUE GRASS ARMY DEPOT, RICHMOND, KENTUCKY

BACKGROUND

Over 101,000 chemical munitions filled with a combined total of more than 520 tons of chemical warfare agents are currently being stored at the Blue Grass Army Depot (BGAD). The tenant organization, Blue Grass Chemical Activity (BGCA), is responsible for executing the storage mission. The chemical agents stored at the BGAD include nerve agents (designated as one of two types: either agent GB or agent VX) and vesicant/blister agent (designated as agent H, which is also called mustard agent). These chemical munitions include 115mm rockets filled with either agent GB or agent VX, 8-in. projectiles filled with agent GB, 155mm projectiles filled with either agent VX or mustard agent and standard Department of Transportation (DOT) 3A bottles filled with mustard agent. The mustard-filled 155mm projectiles and two DOT 3A containers are the subject of this Environmental Assessment (EA).

The mustard agent stored at the BGAD was manufactured between 1941 and 1943 at the Edgewood Area of Aberdeen Proving Ground in Maryland. This agent was subsequently used to fill the 155mm projectiles in the 1940s, and the projectiles have been in storage at the BGAD since that time. Difficulties in processing similar mustard projectiles experienced by other chemical destruction facilities prompted an X-ray assessment of the Blue Grass stockpile in 2011. This assessment confirmed that solidification of the mustard agent in many of the projectiles would inhibit automated processing by the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) currently under construction at the depot.

Most of the munitions are in good physical condition, but a few have developed leaks. All of the leaking items have been placed inside overpack containers and are stored separately from the other stockpile munitions. The condition of stockpile munitions is monitored through a regular inspection program. Of the total 15,492 155mm mustard projectiles in storage at the depot, less than 200 are in overpack containers. Under the action proposed in the EA, the depot's entire inventory of 155mm mustard projectiles – including those in overpack containers, along with the two DOT bottles – would be destroyed by an explosive destruction technology (EDT).

PROPOSED ACTION

The proposed action is to deploy and operate specialized EDT equipment for the safe and timely destruction of the mustard-filled 155mm projectiles and DOT bottles currently being stored at the BGAD in an environmentally acceptable and cost effective manner. The Army proposes to construct and operate an EDT facility within the boundaries of the BGAD to augment the planned operation of the BGCAPP and to address the agent solidification issues expected to be encountered during the processing of the mustard-filled munitions. Before the first nerve agent destruction operations begin at the BGCAPP, it is planned that the proposed EDT facility would process all of the mustard-filled items. The simultaneous processing of

different types of chemical agent is not desirable from the standpoint of logistics or resource and operational efficiency. Based on current schedule estimates, a 38-week period of operation for the proposed EDT facility would allow enough time between the processing of agent types to facilitate the overall schedule for the destruction of the entire BGAD stockpile. It is therefore envisioned that the destruction of the mustard-filled projectiles and the two DOT bottles would be completed by means of the proposed EDT before operations begin at the BGCAPP; nevertheless, the possibility does exist for the overlapping, simultaneous operation of the two facilities.

During the estimated 38-week operational lifetime of the proposed EDT facility, each of the four types of EDT units being considered under the proposed action in the EA must be capable of processing the entire BGAD inventory of mustard-filled 155mm projectiles and DOT bottles. The proposed EDT facility would consist of only a single type of EDT unit; however, multiple units of that type might be deployed. Consideration of the throughput rates of each type of EDT unit has been used to estimate the number of each type of unit that would be needed if only that single type of unit were to be used in the proposed EDT facility: one Static Detonation Chamber (SDC) unit, two Transportable Detonation Chamber (TDC) units, two DAVINCH (Detonation of Ammunition in Vacuum Integrated Chamber) units, or seven Explosive Destruction System (EDS) units.

REASON FOR PREPARING AN ENVIRONMENTAL ASSESSMENT (EA)

The Army's implementation of the National Environmental Policy Act (NEPA) Regulation, Title 32 Code of Federal Regulations (CFR) Part 651 paragraph 33 requires an EA to be prepared whenever a project involves the construction and operation of a major new fixed facility. The EA has been prepared by the Army in compliance with these regulations to determine whether significant impacts to the environment are likely to result from the construction and operation of an EDT at BGCAPP.

SUMMARY OF REFERENCE DOCUMENTS

Destruction of the BGAD stockpiled chemical agent munitions was addressed in previous NEPA documents as described below:

- ACWA (Assembled Chemical Weapons Assessment). *Final Environmental Impact Statement for Design, Construction, and Operation of One or More Pilot Test Facilities for Assembled Chemical Weapons Destruction Technologies at One or More Sites*, U.S. Department of Defense, Program Manager for Assembled Chemical Weapons Assessment, Aberdeen Proving Ground, Md., April. 2002
- Anniston Chemical Agent Disposal Facility (ANCDF), *Environmental Assessment for the Proposed Installation and Operation of an Explosive Destruction Technology at the Anniston Army Depot, Anniston, AL*, April 2009.
- PMCD (Program Manager for Chemical Demilitarization), *Final Environmental Impact Statement for the Destruction of Chemical Munitions at Blue Grass Army Depot, Kentucky*, December 2002.

DETERMINATION

The information and analyses presented in the EA indicate that the proposed action of

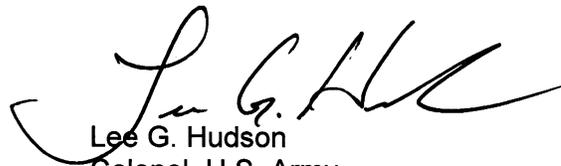
constructing and operating an EDT facility at the BGAD for the destruction of mustard agent-filled 155mm projectiles and DOT bottles would produce no significant environmental impacts. This finding applies to an EDT facility that incorporates any one of the four types of EDT units that were evaluated in the EA: the SDC unit, two TDC units, two DAVINCH units, or seven EDS units.

After an extended public comment period and several meetings on the documents to aid public review and understanding of the EA, seven persons or organizations provided comments on the EA. A discussion of each comment can be found on the ACWA website at <https://www.peoacwa.army.mil/bgcapp/bgcapp-edt>. I have considered all public and government regulatory agency comments, and determined that no additional analysis is necessary for this proposed action under NEPA.

Based on the analysis provided in the above referenced EA prepared by subject-matter experts, the Proposed Action will have no significant impact on land use, air quality, surface water resources, groundwater resources, human health and safety, aquatic resources and wetlands, terrestrial ecological resources, socioeconomic resources, aesthetics, cultural resources, environmental justice, noise, waste management, transportation of waste, or resource requirements.

I have determined that in accordance with the Army's implementing NEPA regulations in consideration of the analysis in the EA, prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information, the proposed action evaluated would create no significant impacts. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

This finding applies to the construction, operation, and decommissioning/closure of an EDT facility using any one of the commercial types of EDT systems (i.e., the SDC, the TDC, or the DAVINCH) at the proposed location at the southwest corner of the BGCAPP footprint, or the Army-owned EDS located at the alternate site just to the north of the BGCAPP.



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Commanding
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