

DATE: March 26, 2025 BILL NO: Senate Bill 253

BILL TITLE: Controlled Hazardous Substance Facility Permit - Research Facilities -

Chemical Warfare Material Requirements

COMMITTEE: House Environment and Transportation

POSITION: Support

Senate Bill 253 as amended modifies language in the Environment Article to provide exemptions from certain statutory restrictions on the incineration of chemical warfare material **only if** the incineration is done for research, development, or demonstration purposes at a research facility as designated by the U.S. Department of Defense (DoD) and allows the Maryland Department of the Environment (MDE) to issue a research, development, and demonstration (RD&D) permit with specific requirements under these circumstances. This legislation provides a solution to an issue noted by DoD that the current statute prevents the United States from being able to develop field-deployable technologies capable of destroying chemical weapons once recovered from enemies due to the data required in order to obtain a permit.

The existing statute dates to 1993 when the U.S. Chemical Stockpile Elimination Program was planning the destruction of chemical weapon stockpiles stored in nine locations around the U.S., including 1,818 mustard-filled ton containers at Aberdeen Proving Ground (APG). The language was written to ensure the Army had sufficient technical data and performed necessary emergency response planning with the local communities to facilitate the safe incineration of APG's stockpile. The Army instead decided to use chemical neutralization in lieu of incineration to destroy APG's stockpile. This effort was completed in 2006.

Under the current National Defense Strategy, the DoD considers the acceleration of research, development, prototyping, and testing of new capabilities, to include Weapons of Mass Destruction (WMD) defense technologies, a national defense priority due to its critical role in protecting our warfighters. To protect United States citizens and troops as well as our allies, the DoD must equip U.S. troops with the capability to defeat, disable, or destroy WMD in the field. To create such capabilities, extensive DoD research and development efforts must first take place.

APG-Edgewood Area is home to the U.S. Army Chemical Biological Center (CBC) and its Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) partners. The facility is a national asset for the research, development and demonstration of technologies to defend our nation against and combat chemical and biological warfare threats. APG is the world's leader in countering threats from chemical weapons, and it is CBC's mission to provide innovative support to identify and develop technologies for use by the civilian industrial base and warfighters that defeat, disable and/or dispose of chemical weapons.

Environment Article §7-239.1 to 7-239.4 made sense for the U.S. stockpile disposal mission in 1993, however, it understandably did not consider the potentially evolving needs of the nation over time. Many of the restrictions in the law have no practical applicability to current development and testing of new thermal destruction technologies but continue to hinder the innovation process to empower our Armed Forces. CBC is evaluating at least four new thermal destruction technologies to support warfighters' requirements to destroy chemical and biological agents in tactical environments; these evaluations are at risk for delay due to the permitting requirements. The current licensing process prohibits such activity, as it requires prospective permittees to supply extensive amounts of data that are not available for the novel technologies proposed. Senate Bill 253 makes minor updates to the statute to ensure this research can be done, while also ensuring permitting and regulatory protections stay in place.

The U.S. Army CBC possesses unique engineering expertise to accelerate the design, prototyping and fielding of chemical agent destruction solutions, and it maintains a robust field capability to identify, remove, and destroy recovered chemical materials. CBC has robust test facilities and environmental and safety programs to support chemical agent treatment testing. The Center has a long-demonstrated history of performing safe and environmentally compliant chemical agent operations, including the destruction of Syria's declared chemical stockpile and numerous development and testing efforts of chemical weapons destruction technologies. APG is unique as it possesses our nation's single small-scale facility, designated under the Chemical Weapons Convention as the only place in the country where chemical agents can be synthesized and stored at the quantities needed for defense research, development and testing programs.

CBC conducts chemical agent laboratory operations daily in accredited labs that are compliant with independent quality assurance programs and participate in quality system audits. Their chemical agent defense test facilities, located on the remote test ranges at Edgewood, operate under a "layers of protection" model that never relies on a single means to protect people and the environment. This layer of protection model has a proven track record at CBC. In 2023, CBC had an OSHA Recordable Incident Rate of 0.4, well below the North American Industry Classification System average of 6.3.

For more than a century CBC and its forerunner organizations at APG have demonstrated the ability to perform chemical agent operations with robust environmental and safety programs to protect the workforce, the community and the environment. Research on new technologies will produce systems and procedures to destroy or remediate chemical agents and weapons in a safer, more expedient, and less costly manner.

Explanation of amendments: The consensus amendments adopted in the Senate authorize MDE to issue an RD&D permit for the incineration of chemical warfare materials at a research facility. The amendments detail numerous requirements relating to such permits, which are in addition to general requirements for RD&D permits, including continuous near-real time air emissions monitoring during incineration. The amendments also create annual reporting requirements and impact assessments which must be completed by the research facility.

Commerce respectfully requests a favorable report Senate Bill 253 as amended.