

## Maryland Legislative Change to Support the Combat Capabilities Developments Command's (CCDC's) Chemical Biological Center (CBC) Mission

### Background:

Maryland statutes enacted in 1993 to regulate the environmental impact of the elimination of the chemical agent stockpile at the Edgewood area of the Aberdeen Proving Ground (APG) have now created the unforeseen result of adversely impacting the Department of Defense's (DoD's) ability to develop and demonstrate new technologies to manage and control chemical warfare materiel in tactical environments and emergency response situations.

In short, technological advances over the past 30 years require the creation and destruction of small amounts of diverse hazardous materials for research and development purposes. By contrast, the 1993 law was drafted and designed to address the destruction of large amounts of mustard gas. Today, the State of Maryland needs an updated law that will provide sufficient environmental safeguards while permitting CCDC CBC to carry out its mission of researching and developing strategies to dispose of current and new forms of chemical weapons, in smaller quantities. To accomplish that goal, the MRD Coalition proposes a legislative change to be introduced during the 2021 Maryland General Assembly.

### The Goal:

The U.S. Army CBC is the nation's premier provider of innovative chemical and biological defense solutions. CBC has a unique role in technology development that cannot be duplicated by private industry or research universities. CBC also fosters research, development, testing, and application of technologies for protecting warfighters, first responders and the nation from chemical and biological warfare agents. Additionally, it possesses unique engineering expertise to accelerate the design, prototyping and fielding of protective equipment; and it maintains a robust field capability to identify, remove, and destroy recovered chemical materials. Employing 1070 Department of Army civilians, three military personnel, and 329 contractors, CBC staff cover all of the scientific, engineering, and operational skill sets required for mission success.

CBC is the DoD's designated organization for the research, development and demonstration of, among other things, technologies to destroy chemical and biological warfare materials. This includes new and novel incineration technologies. However, the 1993 Maryland statute did not contemplate this developing mission. Many of the specific restrictions listed in the 1993 law,

which pertain to stockpile elimination, have no practical applicability to current research, development and demonstration of these new incineration technologies.

Maryland SB 612, codified as Section 7-239.1 through 7-239.4 of the Environment Article in 1993, established rigorous requirements for the permitting of a thermal incineration technology to destroy 1,818 ton containers of bulk mustard agent stockpiled at the Edgewood area of APG. Although the stockpiled mustard agent was eventually destroyed by a different (aqueous neutralization) technology in 2006, the 1993 legislation still requires the same extensive preparation and inputs to secure a permit for the incineration of any amount of chemical agent, even small amounts required for research and development purposes, rather than the elimination of tons of bulk stockpile materials.



### THE MARYLAND DEFENSE RESEARCH (MDR) COALITION

#### SUPPORTING CCDC CBC

The [Maryland Defense Research \(MDR\) Coalition](#) is an organization established to update current Maryland State statutory language to allow CCDC CBC, the nation's provider of innovative chemical and biological defense solutions, to conduct much needed and critical research and development activities that they are equipped to safely execute.

CBC is currently evaluating at least four new incineration technologies to support the warfighter's need to destroy chemical and biological agents in tactical environments, and to enhance our nation's capability to destroy recovered chemical munitions or other U.S. and foreign stockpiles, all of which are at risk for delay because of the requirements of current Maryland law. CBC staff have discussed the legislation with Maryland Department of Environment (MDE) staff and believe a change to the wording of 7-239.2(c) would enable permitting for research, development and demonstration of new technologies that incorporate some form of incineration. The proposed change is narrowly tailored to accomplish this specific purpose, as follows:

**Current Law:** "Since these chemical warfare materials are highly toxic or carcinogenic, in addition to any other applicable requirements at law, the State shall require without exemption or waiver that an applicant for the treatment by incineration of the chemical warfare materials shall comply with all the requirements of this subtitle and all regulations adopted under this subtitle."

**Proposed Change:** "Since these chemical warfare materials are highly toxic or carcinogenic, in addition to any other applicable requirements at law, the State shall require that an applicant for the treatment by incineration of the chemical warfare materials shall comply with all the requirements of this subtitle and all regulations adopted under this subtitle unless for research, development and demonstration purposes."

CBC cannot lobby the Maryland General Assembly directly for a legislative amendment. In January 2020, the CBC Director and his staff explained the problem and the impact of MDE's inability to issue permits for research, development and demonstration of incineration technologies due to the existing legislation to members of the MDR Coalition and accepted the Coalition's offer of advocacy. The Army Alliance, an advocacy group whose sole purpose is to promote public policies that support the mission of the Aberdeen Proving Ground and other members of the MDR Coalition are working closely with the Coalition's leadership on this initiative. However, this legislation could benefit certain operations at other Maryland military installations as well.



The MDR Coalition has decided to approach the 2021 legislative cycle by recruiting members, businesses, organizations and individuals to show broad support and to advocate for this legislative change. The MDR Coalition is a single purpose organization that will exist during the legislative process for this initiative. Bryson Popham, who serves as the Maryland registered lobbyist for the Army Alliance, will also advise the Coalition and provide administrative services to the Coalition. It is important to emphasize that the Maryland Department of the Environment (MDE) will retain regulatory and compliance responsibility over this process upon securing the desired change in the Maryland statute.

### **Facilities and Protective Systems:**

The CBC is the United States' designated capability for research, development and demonstration of technologies to destroy chemical and biological warfare materiel and is recognized world-wide for expertise in this area. For over 100 years CBC has conducted research, development and test operations which has led to robust environmental and safety programs (procedures, facilities, training) to protect the workforce, the community and the environment. They have a demonstrated ability to perform safe and environmentally compliant chemical agent operations. Examples include the destruction of the Aberdeen Chemical Agent Disposal Facility (ABCDF) Stockpile of bulk mustard gas, the Syria Chemical Stockpile Destruction on the MV Cape Ray and the Munitions Assessment and Processing System (MAPS). The Center has accredited laboratory operations that are compliant with independent quality assurance programs and they participate in both internal and external quality system audits. Their remote test facilities operate under a "layers of protection" model that never relies on a single means to protect the workforce, community and environment. Their facilities have robust engineering control systems and filters that direct, contain, treat and capture any unanticipated emissions.

CBC has an exceptional safety record as evidenced by their twice earning one of the U.S. Army's highest safety awards. In 2015 they won the award for successfully destroying 600 metric tons of Syria's declared chemical warfare material aboard the MV Cape Ray using the Field Deployable Hydrolysis System. Safety was a critical component of the mission, which was completed without any reportable accidents or releases to the environment. In 2018 they won the award for establishing new approaches to strengthening laboratory safety practices.