



March 4, 2021

The Honorable Paul G. Pinsky, Chair
Senate Education, Health, and Environmental Affairs Committee
2 West, Miller Senate Office Building
Annapolis, MD 21401

Re: Controlled Hazardous Substance Facility Permit - Research Facilities - Chemical Warfare Material Requirements

Dear Chair Pinsky and Members of the Committee:

The Maryland Department of the Environment (MDE or the Department) has reviewed Senate Bill 889 entitled *Controlled Hazardous Substance Facility Permit - Research Facilities - Chemical Warfare Material Requirements* and would like to provide the Committee with additional information regarding this bill.

Section 7-239.2 of the Environment Article specifies that, without exemption or waiver, MDE shall require that an applicant for a Controlled Hazardous Substance (CHS) Facility Permit for the treatment of chemical warfare materials by incineration shall comply with all the requirements in Title 7, Subtitle 2 of the Environment Article (i.e., the CHS Statute), and all regulations adopted under the CHS Statute. Senate Bill 889 would establish an exemption for a research facility, a facility designated by the U.S. Department of Defense (DOD) for the research, development, or demonstration of technologies related to chemical warfare materials, treating chemical warfare materials by incineration. Under the bill, the incineration of chemical warfare materials at a research facility would no longer be subject to the performance standards and operation conditions for a CHS Facility Permit established in §§7-239.3 and 7-239.4 of the Environment Article.

In 1993, the General Assembly passed Chapter 612 in response to public concerns about the possibility that a bulk stockpile of mustard agent stored by the U.S. Army at the Aberdeen Proving Ground would be destroyed using an incinerator to be constructed at the military installation. Under an international treaty, the United States Government had agreed to destroy its chemical weapons. Chapter 612 added §§7-239.1 through 7-239.4 to the Environment Article, deeming a chemical warfare material that is a solid waste a CHS and requiring the incineration of a chemical warfare material to be regulated under the CHS Statute.

Currently, §7-239.3 of the Environment Article requires that CHS Facility Permit applicants demonstrate that a proposed incinerator technology meets certain performance standards. This demonstration would likely not be possible if the incineration were being conducted for research, development, or demonstration purposes. For example, an applicant must demonstrate that the proposed incinerator technology has consistently met all applicable federal and State performance

standards, based on a comparable operational facility, and can achieve a destruction and removal efficiency of 99.9999% for each chemical warfare material to be incinerated at the facility. However, in most cases, for research involving an innovative technology, there will be no comparable operational facility nor data regarding the technology's destruction and removal efficiency. The application standards and facility operating conditions in §§7-239.3 and 7-239.4 of the Environment Article are intended to constrain the operation of an incinerator that would be operating over an extended period of time and processing large quantities of chemical warfare materials. Requiring that these standards and operating conditions be met for a research activity may, in some cases, stifle innovation by hindering research into chemical warfare material treatments, even though the research would be conducted in a laboratory setting with engineering controls in place to capture and treat any emissions from the incinerator technology under evaluation.

Existing §7-239.3(a) of the Environment Article states that “[a] chemical warfare material that is a solid waste is a [CHS]”. The bill proposes to exclude chemical warfare materials that will be incinerated at designated DOD research facilities from being regulated as a CHS. COMAR 23.13.02 “Identification and Listing of Hazardous Waste” uses the authority in §7-239.3(a) of the Environment Article to include waste chemical warfare material as a solid waste and hazardous waste. Currently, the incineration of any CHS for research, development, or demonstration purposes is regulated by MDE through either a CHS Facility Permit, a Research, Development and Demonstration (RDD) Permit, or a hazardous waste treatability study. MDE may issue an RDD Permit for any hazardous waste treatment facility that proposes to utilize an innovative and experimental hazardous waste treatment technology or process for which permit standards for the experimental activity have not been adopted in regulation. MDE regulations also contain specific requirements for a person involved in a treatability study being conducted in a laboratory or testing facility.

The Department does not object to the bill's proposed exclusion for a DOD research facility from the application standards in existing §7-239.3(b) of the Environment Article. However, the bill's proposal to exclude chemical warfare materials incinerated at a research facility from being a CHS under §7-239.3(a) of the Environment Article is of significant concern to the Department because if a chemical warfare material is not a CHS, then the treatment of the material by incineration would not be subject to the provisions of the CHS Statute or regulations adopted under its authority. Even if the incineration of chemical warfare materials at DOD designated research facilities are excluded from meeting certain application standards and adhering to certain operational conditions under §§7-239.3(b) and 7-239.4 of the Environment Article, the incineration of any chemical warfare material should still be conducted under an RDD Permit or treatability study. Moreover, all chemical warfare materials that are solid wastes should be regulated as a CHS, despite how the materials are managed.

The Department's concerns could be alleviated by placing the bill's proposed exemption in §7-239.3 of the Environment Article after existing subsection (a) and renumbering existing subsection (b) to be subsection (d) accordingly. Additionally, the proposed amendment should only exempt the incineration of chemical warfare materials at a DOD research facility done for research,

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development, or demonstration purposes from the application standards established in renumbered subsection (d) of §7-239.3 of the Environment Article.

Thank you for your consideration. We will continue to monitor Senate Bill 889 during the Committee's deliberations, and I am available to answer any questions you may have. Please feel free to contact me at tyler.abbott@maryland.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Tyler Abbott", with a long horizontal line extending to the left.

Tyler Abbott

cc: The Honorable J. B. Jennings
Ms. Kaley Laleker, Director, Land and Materials Administration

AMENDMENTS TO SENATE BILL 889
(First Reading File Bill)

AMENDMENT NO. 1

On page 2, line 2, strike “§ 7-239.3(B)” and substitute “§ 7-239.3(C)”; strike in their entirety lines 8 through 14, inclusive; in line 15, strike the brackets; in the same line strike “(C)”; and after line 16, insert:

“(B) IN THIS SECTION, “RESEARCH FACILITY” MEANS A FACILITY DESIGNATED BY THE U.S. DEPARTMENT OF DEFENSE FOR THE RESEARCH, DEVELOPMENT, AND DEMONSTRATION OF TECHNOLOGIES RELATED TO CHEMICAL WARFARE MATERIALS.

“(C) SUBSECTION (D) OF THIS SECTION DOES NOT APPLY TO THE INCINERATION OF CHEMICAL WARFARE MATERIALS AT A RESEARCH FACILITY IF THE INCINERATION IS DONE FOR RESEARCH, DEVELOPMENT, OR DEMONSTRATION PURPOSES.”.