

Department of Legislative Services
 Maryland General Assembly
 2020 Session

FISCAL AND POLICY NOTE
Enrolled - Revised

Senate Bill 420

(Senator Elfreth, *et al.*)

Education, Health, and Environmental Affairs

Health and Government Operations

Environment – Use of Fire-Fighting Foam and PFAS Chemicals

This bill generally prohibits, beginning October 1, 2021, the use of “Class B fire-fighting foam” that contains intentionally added “PFAS chemicals” for testing purposes, with specified exceptions, or training purposes. Nonfluorinated training foam must be used for fire-fighting training purposes. The bill does not apply to fire-fighting foams used at the Baltimore-Washington International Thurgood Marshall Airport, nor does it restrict the manufacture, sale, distribution, discharge, or use of Class B fire-fighting foam that contains intentionally added PFAS chemicals in emergency fire-fighting or fire prevention operations. A person who violates the bill’s provisions is subject to a civil penalty of up to \$500 for a first violation and up to \$1,000 for a second or subsequent violation.

Fiscal Summary

State Effect: General fund expenditures increase by \$46,600 in FY 2021, by \$49,400 in FY 2022, and by \$10,700 in FY 2023. The bill’s civil penalty provision is not expected to materially affect general fund revenues.

(in dollars)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Revenues	\$0	\$0	\$0	\$0	\$0
GF Expenditure	46,600	49,400	10,700	0	0
Net Effect	(\$46,600)	(\$49,400)	(\$10,700)	\$0	\$0

Note: () = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate increase; (-) = indeterminate decrease

Local Effect: Local government expenditures may increase minimally for some jurisdictions to acquire alternative products and/or to implement containment, treatment, and disposal measures. Local revenues are not affected.

Small Business Effect: None.

Analysis

Bill Summary: “Class B fire-fighting foam” means a foam designed for flammable liquid fire. “PFAS chemicals” means a class of fluorinated organic chemicals that (1) contain at least one fully fluorinated carbon atom, including perfluoroalkyl and polyfluoroalkyl substances and (2) are designed to be fully functional in Class B fire-fighting foam formulations.

Class B fire-fighting foam that contains intentionally added PFAS chemicals may be used for testing purposes if (1) the use is required by law or by the agency that has jurisdiction over the testing facility and (2) the testing facility has implemented appropriate containment, treatment, and disposal measures to prevent releases of foam into the environment.

Current Law/Background: State law and regulations are silent with regard to PFAS.

PFAS, or Perfluoroalkyl and Polyfluoroalkyl Substances

PFAS are a group of synthetic chemicals that include PFOA, PFOS, GenX, and many other chemicals. PFAS have been manufactured and used in a variety of industries in the United States since the 1940s. PFAS can be found in firefighting foam, nonstick cookware (*e.g.*, Teflon), fast food wrappers, and stain-resistant sprays. PFAS manufacturing and processing facilities, facilities using PFAS in the production of other goods, airports, and military installations are some of the contributors of PFAS releases into the air, soil, and water. PFAS are persistent in the environment and the human body, which means they do not break down easily and can accumulate over time. Most people in the United States have been exposed to PFAS. There is evidence that exposure to PFAS can lead to adverse human health effects, including low infant birth weights, effects on the immune system, cancer, and thyroid hormone disruption.

Aqueous film-forming foams (AFFF) are used to extinguish hydrocarbon-fuel fires (*e.g.*, jet fuel fires), but they can contain PFAS, particularly in older formulations of AFFF. The identification of one class of fluorinated surfactants in groundwater impacted by firefighting activity has created an awareness of the potential environmental issues resulting from the use of AFFF agents. The Federal Aviation Administration (FAA) requires that certified airports use foams that meet military specifications; all such foams contain PFAS. The FAA Reauthorization Act of 2018 directed the FAA to stop the use of fluorinated foam by October 4, 2021. As a result, FAA is conducting research on the use of (1) testing equipment that does not require foam to be dispensed onto the ground and (2) fluorine-free firefighting foams. In addition, the U.S. Department of Defense (DOD) is

working with the Strategic Environmental Research and Development Program (a partnership of DOD, the U.S. Environmental Protection Agency (EPA), and the U.S. Department of Energy) to develop nonPFAS AFFF alternatives.

Protecting Human Health and the Environment from Chemical Exposure

Federal laws such as the Clean Air Act, the Clean Water Act, and the Safe Drinking Water Act, many of which are enforced at the State level, aim to reduce chemicals in the environment. EPA regulates the introduction of new or already existing chemicals under the federal Toxic Substances Control Act (TSCA) of 1976. EPA has taken a range of regulatory actions to address PFAS substances in manufacturing and consumer products. EPA also developed an industry-implemented global stewardship program.

On May 19, 2016, EPA established drinking water health advisories for PFOA and PFOS (two of the most widely produced and studied types of PFAS). Health advisories provide information on contaminants that cause human health effects and are known or anticipated to occur in drinking water. These advisories are nonenforceable and nonregulatory, but provide drinking water system operators, and state, tribal, and local officials who have the primary responsibility for overseeing these systems with information on the health risks of these chemicals. EPA is also currently evaluating PFOA and PFOS pursuant to the Safe Drinking Water Act.

EPA has taken several actions under TSCA related to PFAS, including issuing multiple significant new use rules (SNURs). SNURs generally require any person who intends to manufacture or process an affected chemical to provide EPA with notice at least 90 days before starting or resuming use of the chemical. Most recently, on January 21, 2015, EPA proposed a SNUR, which would require any person who intends to manufacture or process affected chemicals to notify EPA at least 90 days before starting or resuming new uses of these chemicals in *any products*. Past SNUR action on PFAS was related to use in specific products. EPA has also been evaluating substitutes for certain PFAS for new chemicals pursuant to EPA's New Chemicals Program under TSCA since 2000.

Certain PFAS chemicals are no longer manufactured in the United States as a result of phase-outs that were agreed upon by major chemical manufacturers based on the evidence that PFAS pose significant health risks (see the [PFOA Stewardship Program](#)). However, some of these chemicals are still produced internationally and can be imported into the United States in certain consumer goods.

In 2019, the Maryland Department of the Environment (MDE) announced the formation of a task force involving several of the department's administrations. In addition, MDE

established a three-step approach to the challenges of PFAS in the State, which includes (1) understanding the risk through science, inspection, and assessment; (2) communicating the risk through public education; and (3) managing the risk through appropriate funding, regulation, and agency coordination. As part of the first step, MDE has initiated a project to develop a GIS-based map to identify potential sources of PFAS in the State and to prioritize water sources for PFAS sampling. According to DOD, PFAS contamination in groundwater has been identified on at least eight military installations in the State.

According to the [National Conference of State Legislatures](#), several states are also starting to address PFAS chemicals.

State Expenditures: General fund expenditures for MDE increase by \$46,635 in fiscal 2021, which reflects the bill's October 1, 2020 effective date. This estimate reflects the cost of hiring one contractual environmental health specialist for two years to conduct outreach and enforce the bill's provisions. It includes a salary, fringe benefits, one-time start-up costs (including testing equipment), and ongoing operating expenses, including travel.

Contractual Position	1
Salary and Fringe Benefits	\$33,669
Operating Expenses/Equipment	<u>12,966</u>
Total FY 2021 State Expenditures	\$46,635

Future year expenditures reflect a full salary with annual increases and employee turnover, ongoing operating expenses, and termination of the contractual employee in fiscal 2023.

This estimate does not include any health insurance costs that could be incurred for specified contractual employees under the State's implementation of the federal Patient Protection and Affordable Care Act.

Pursuant to current law, MDE must enforce the provisions of the Environment Article. This analysis assumes that as users of affected fire-fighting foam become aware of the bill's provisions and come into compliance, the need for active enforcement decreases. Thus, it is assumed that after October 1, 2022, MDE no longer needs the contractual environmental health specialist. To the extent actual experience under the bill indicates a need for ongoing contractual assistance, MDE can request additional resources through the annual budget process.

Additional Information

Prior Introductions: None.

Designated Cross File: HB 581 (Delegate Love, *et al.*) - Health and Government Operations.

Information Source(s): Anne Arundel, Baltimore, Charles, Montgomery, and Prince George's counties; Maryland Association of Counties; cities of Baltimore, Bowie, and Havre de Grace; Maryland Municipal League; Maryland Higher Education Commission; University System of Maryland; Department of Natural Resources; Maryland Department of the Environment; Department of State Police; Maryland Department of Transportation; Department of General Services; American Chemical Society; U.S. Department of Defense; U.S. Environmental Protection Agency; Federal Aviation Administration; National Conference of State Legislatures; Department of Legislative Services

Fiscal Note History: First Reader - February 7, 2020
mc/lgc Third Reader - March 15, 2020
Revised - Amendment(s) - March 15, 2020
Revised - Updated Information - March 15, 2020
Enrolled - April 1, 2020
Revised - Amendment(s) - April 1, 2020

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