

Calendar No. 409

116TH CONGRESS }
2d Session }

SENATE

{ REPORT
116-211 }

PROTECTING FIREFIGHTERS FROM ADVERSE
SUBSTANCES ACT OF 2019

R E P O R T

OF THE

COMMITTEE ON HOMELAND SECURITY AND
GOVERNMENTAL AFFAIRS
UNITED STATES SENATE

TO ACCOMPANY

S. 2353

TO DIRECT THE ADMINISTRATOR OF THE FEDERAL EMERGENCY
MANAGEMENT AGENCY TO DEVELOP GUIDANCE FOR FIRE-
FIGHTERS AND OTHER EMERGENCY RESPONSE PERSONNEL ON
BEST PRACTICES TO PROTECT THEM FROM EXPOSURE TO PFAS
AND TO LIMIT AND PREVENT THE RELEASE OF PFAS INTO THE
ENVIRONMENT, AND FOR OTHER PURPOSES



FEBRUARY 3, 2020.—Ordered to be printed

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PROTECTING FIREFIGHTERS FROM ADVERSE
SUBSTANCES ACT OF 2019

FEBRUARY 3, 2020.—Ordered to be printed

Mr. JOHNSON, from the Committee on Homeland Security and
Governmental Affairs, submitted the following

R E P O R T

[To accompany S. 2353]

[Including cost estimate of the Congressional Budget Office]

The Committee on Homeland Security and Governmental Affairs, to which was referred the bill (S. 2353), to direct the Administrator of the Federal Emergency Management Agency to develop guidance for firefighters and other emergency response personnel on best practices to protect them from exposure to PFAS and to limit and prevent the release of PFAS into the environment, and for other purposes, having considered the same, reports favorably thereon without amendment and recommends that the bill do pass.

CONTENTS

	Page
I. Purpose and Summary	1
II. Background and Need for the Legislation	2
III. Legislative History	4
IV. Section-by-Section Analysis	4
V. Evaluation of Regulatory Impact	5
VI. Congressional Budget Office Cost Estimate	5
VII. Changes in Existing Law Made by the Bill, as Reported	6

I. PURPOSE AND SUMMARY

S. 2353, the Protecting Firefighters from Adverse Substances Act of 2019, or the “PFAS Act of 2019”, directs the Federal Emergency Management Agency (FEMA), in consultation with the United States Fire Administration (USFA), Environmental Protection Agency (EPA), and the National Institute for Occupational Safety and Health (NIOSH), to develop and publish guidance for firefighters and other emergency response personnel on training, edu-

cation programs, and best practices to protect them and their communities from exposure to per- and polyfluoroalkyl substances, commonly referred to as PFAS. Specifically, this guidance is to include information on ways to reduce first responders' exposure to PFAS from firefighting foam and personal protective equipment, and limit, prevent, or eliminate the release of PFAS into the environment.

The bill also requires the development and issuance of guidance to identify safer alternative foams, personal protective equipment, and other firefighting tools and gear. In addition, the bill requires the creation of a regularly-updated online repository that includes resources for firefighters and emergency personnel on tools and best practices to help protect themselves and their communities from the release of and exposure to PFAS. FEMA is also required to consult with firefighters, communities affected by PFAS contamination, scientists, voluntary standards organizations, state fire training academies, state fire marshals, manufacturers of firefighter tools and equipment, and other relevant parties. FEMA, in consultation with the aforementioned Federal agencies, is required to review the guidance three years from the date of the bill's enactment and not less frequently than once every two years thereafter. The requirements set forth in this bill are exempt from the Federal Advisory Committee Act.

II. BACKGROUND AND THE NEED FOR LEGISLATION

PFAS are a class of more than 4,700 highly-fluorinated man-made chemicals that are widely used in everyday products, such as waterproof clothing, stain resistant fabrics and carpets, non-stick cookware, cosmetics, and firefighting foams.¹ PFAS have been in use since the 1950s and are commonly detected at low levels in the environment, including in people and wildlife, because of their extensive use.² PFAS contamination of ground and surface waters, including potential drinking water, are found at higher concentrations near military bases that have used firefighting foams, and around industrial sites that have used the fluorinated chemicals in manufacturing and in commercial products.³ Some studies indicate that high-level exposure to specific PFAS may lead to adverse health effects in humans, including increased risks of cancer; damage to the immune system; decreased fertility; birth defects; liver disease; and thyroid disease.⁴

The associated adverse health effects of human exposure to PFAS were first discovered as far back as 1950 when 3M, a major manufacturer of products containing PFAS, demonstrated that PFAS could pollute people's blood.⁵ In the 1980s, both 3M and DuPont identified links between PFAS and cancer, including finding elevated cancer rates among their own workers.⁶ In 2000, 3M announced a phase out of certain PFAS which was later expanded

¹ Perfluoroalkyl and Polyfluoroalkyl Substances, *Frequently Asked Questions*, Agency for Toxic Substances and Disease Registry, Centers for Disease Control, <https://www.atsdr.cdc.gov/pfas/index.html>.

² *Id.*

³ PFOA, PFOS, and Other PFASs, *Basic Information on PFAS*, United States Environmental Protection Agency, <https://www.epa.gov/pfas/basic-information-pfas#exposed>.

⁴ *Supra* note 1.

⁵ What are PFAS Chemicals?, Environmental Working Group, <https://www.ewg.org/pfaschemicals/what-are-forever-chemicals.html>.

⁶ *Id.*

due to further toxicity concerns. Following this action and concerns from stakeholders, the EPA, Food and Drug Administration, the Department of Agriculture, the National Institute of Health, the Centers for Disease Control and Prevention, the U.S. Department of Defense (DoD), as well as local and state governments and national organizations have worked to advance knowledge on potential exposure from food and the associated health risks of PFAS.⁷

In 2009, EPA included PFAS for monitoring under the Safe Drinking Water Act and issued a provisional health advisory for two PFAS compounds.⁸ In 2014, EPA published a draft health assessment aimed in part at identifying safe drinking water levels, and in 2016, established a non-enforceable Lifetime Health Advisory of 70 parts per trillion in drinking water.⁹

In 2010, Michigan became aware of PFAS contamination at the decommissioned Wurtsmith Air Force Base in Oscoda, Michigan.¹⁰ Similar contamination has been detected at many other DoD installations, both active and decommissioned, including Pease Air Force Base in New Hampshire.¹¹ PFAS were found in firefighting foams known as Aqueous Film Forming Foam that have been used by the U.S. Air Force since the 1970s.¹² As a result of the use of Aqueous Film Forming Foam, high-level contamination of PFAS was discovered at the Pease Air Force Base in April 2014. This contamination spread to neighboring civilians and caused the city of Portsmouth, NH to close the Haven well.¹³

In a November 2018 Subcommittee on Federal Spending Oversight and Emergency Management hearing titled, *The Local, State, and Federal Response to the PFAS Crisis in Michigan*, Brian Lepore, Director, Defense Capabilities and Management, U.S. Government Accountability Office, said that there are more than 401 active or closed military bases with PFAS groundwater contamination.¹⁴ To address PFAS contamination issues across its military bases and installations, Mr. Lepore further stated that DoD spent \$200 million for PFAS cleanup efforts as of December 2016, but added that it would take several more years to determine full environmental remediation costs.¹⁵

At the same hearing, Lieutenant Timothy Putnam, vice-president of the Tidewater Federal Fire Fighters, explained that firefighters and emergency response personnel face disproportionately high levels of PFAS exposure because the chemicals are key ingredients in

⁷Per and Polyfluoroalkyl Substances (PFAS), U.S. Food and Drug Administration, <https://www.fda.gov/food/chemicals-and-polyfluoroalkyl-substances-pfas>.

⁸Ground Drinking Water, *Drinking Water Health Advisories for PFOA and PFOS*, United States Environmental Protection Agency, <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>.

⁹*Id.*

¹⁰Former Wurtsmith Air Force Base, Iosco County, Michigan PFAS Action Response Team, Michigan Dept. of Environment, Great Lakes, and Energy, *available at* https://www.michigan.gov/pfasresponse/0,9038,7-365-86511_82704_83952--,00.html.

¹¹Poly- and Per-fluoroalkyl Substances, *Pease Tradeport Water System Investigation*, New Hampshire Department of Health and Human Services, <https://www.dhhs.nh.gov/dphs/investigation-pease.htm>.

¹²Perfluorinated-Compounds, *Air Force Response to PFOS and PFOA*, Air Force Civil Engineer Center, <https://www.afcec.af.mil/WhatWeDo/Environment/Perfluorinated-Compounds/>.

¹³Andrea Amico et al., *The PFAS Contamination at Pease: A Community Perspective* (2017).

¹⁴*Federal Role in the Toxic PFAS Chemical Crisis: Hearing Before the S. Homeland Sec. & Governmental Affairs Comm., Subcomm. on Fed. Spending and Emergency Mgmt.* (115th Cong.) (2018).

¹⁵*Id.* (testimony of Brian J. Lepore, Director, Defense Capabilities and Management, and J. Alfredo Gomez, Director, National Resources and Environment, United States Government Accountability Office).

firefighting foam and personal protective equipment.¹⁶ Firefighters are routinely exposed to PFAS during emergency responses and training activities.

This bill addresses a gap in Federal efforts and measures to reduce, limit, and prevent the disproportionate level of PFAS exposure to firefighters and emergency response personnel. As noted above, most PFAS regulation has been focused on environmental safety, and mainly related to drinking water. This bill helps fill a critical information gap that currently exists in addressing PFAS contamination by providing firefighters and emergency response personnel with important information on health impacts and the steps necessary to protect themselves and their communities from PFAS exposure. FEMA's partnership with relevant Federal experts to develop consensus, guidance, and a repository of information on best practices to reduce, limit, and prevent PFAS exposure and contamination will help safeguard the health and safety of firefighters and the communities that they serve. This information will help firefighters and other emergency responders reduce their exposures to PFAS and minimize or eliminate its environmental release.

III. LEGISLATIVE HISTORY

Ranking Member Gary Peters (D-MI) introduced S. 2353, the Protecting Firefighters from Adverse Substances Act of 2019, on July 31, 2019, with Senators Gardner (R-CO), Hassan (D-NH) and Sullivan (R-AK). The bill was referred to the Committee on Homeland Security and Governmental Affairs.

The Committee considered S. 2353 at a business meeting on November 6, 2019. The bill was approved by voice vote *en bloc* with Senators Johnson, Enzi, Hawley, Paul, Portman, Lankford, Romney, Scott, Peters, Carper, Hassan, Rosen and Sinema present.

IV. SECTION-BY-SECTION ANALYSIS OF THE BILL, AS REPORTED

Section 1. Short title

This section establishes the short title of the bill as the "Protecting Firefighters from Adverse Substances Act of 2019."

Section 2. Guidance on how to prevent exposure to and release of PFAS

Subsection (a) directs FEMA, in consultation with the USFS, EPA, NIOSH, and other relevant Federal agencies, to within 180 days of enactment, develop and publish guidance for firefighters and other emergency response personnel on training, education programs, and best practices, to reduce exposure to and limit the release of PFAS into the environment, as well as alternative tools and equipment that do not contain PFAS. FEMA is also required to create a regularly updated online public repository on methods for firefighters and other emergency response personnel to reduce and prevent the release of and exposure to PFAS.

Subsection (b) requires the FEMA Administrator to consult with interested entities when developing the guidance required under subsection (a), including firefighters and other emergency response

¹⁶*Id.* (testimony of Lieutenant Timothy Putnam, Vice-President, Tidewater Federal Fire Fighters).

personnel, communities impacted by PFAS contamination, and scientists who are studying PFAS or PFAS alternatives.

Subsection (c) requires the FEMA Administrator to review and issue updates to the guidance required under subsection (a) no later than three years after the guidance is issued, and no later than every two years thereafter.

Subsection (d) exempts the guidance development and consultation provisions outlined in this bill from the requirements established in the Federal Advisory Committee Act.

V. EVALUATION OF REGULATORY IMPACT

Pursuant to the requirements of paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee has considered the regulatory impact of this bill and determined that the bill will have no regulatory impact within the meaning of the rules. The Committee agrees with the Congressional Budget Office's statement that the bill contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

VI. CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, January 23, 2020.

Hon. RON JOHNSON,
Chairman, Committee on Homeland Security and Governmental Affairs, U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for S. 2353, the PFAS Act of 2019.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Jon Sperl.

Sincerely,

PHILLIP L. SWAGEL,
Director.

Enclosure.

S. 2353, PFAS Act of 2019			
As ordered reported by the Senate Committee on Homeland Security and Governmental Affairs on November 6, 2019			
By Fiscal Year, Millions of Dollars	2020	2020-2024	2020-2029
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	0	0	0
Spending Subject to Appropriation (Outlays)	*	2	not estimated
Statutory pay-as-you-go procedures apply?	No	Mandate Effects	
Increases on-budget deficits in any of the four consecutive 10-year periods beginning in 2030?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No
* = between zero and \$500,000.			

S. 2353 would direct the Federal Emergency Management Agency (FEMA), to develop and publish guidance for firefighters and other emergency responders for reducing exposure to PFAS.¹ The guidance would include information on best practices, training, and education that FEMA would develop in consultation with scientists, firefighters, manufacturers, and staff at other federal agencies.

For this estimate, CBO assumes that bill will be enacted in fiscal year 2020. Under that assumption, the agency could incur some costs in 2020, but CBO expects that most of the costs would be incurred in 2021 and later. Any spending would be subject to the availability of appropriated funds.

Using information provided by FEMA about the cost of similar efforts, CBO estimates that the agency would initially spend about \$400,000 to create guidance and training materials related to PFAS, and about \$100,000 each year thereafter to update those materials. The bill also would require FEMA to create an online repository with tools and best practices concerning PFAS, and to update its guidance and the repository biannually. CBO estimates that the agency would initially need about \$250,000 to create the repository, and about \$100,000 each year thereafter to update and maintain the system. To oversee the implementation of the guidance and repository, CBO expects that FEMA would need a program manager at an estimated cost of \$180,000 per year. In total, CBO estimates that implementing the bill would cost about \$2 million over the 2020–2024 period.

The CBO staff contact for this estimate is Jon Sperl. The estimate was reviewed by H. Samuel Papenfuss, Deputy Director of Budget Analysis.

VII. CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

Because S. 2353 would not repeal or amend any provision of current law, it would make no changes in existing law within the

¹ PFAS, perfluoroalkyl and polyfluoroalkyl substances, are chemical compounds used in certain fire suppressants.

meaning of clauses (a) and (b) of paragraph 12 of rule XXVI of the Standing Rules of the Senate.

