118TH CONGRESS
1ST SESSION

S. 466

To provide for the National Academies of Sciences, Engineering, and Medicine to study and report on a Federal research agenda to advance the understanding of perfluoroalkyl and polyfluoroalkyl substances, and for other purposes.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 16, 2023

Mr. PETERS (for himself, Mr. MORAN, and Mrs. SHAHEEN) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

---

A BILL

To provide for the National Academies of Sciences, Engineering, and Medicine to study and report on a Federal research agenda to advance the understanding of perfluoroalkyl and polyfluoroalkyl substances, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Federal PFAS Research Evaluation Act''.

SEC. 2. FINDINGS.

Congress finds that—

(1) perfluoroalkyl and polyfluoroalkyl substances are a group of manmade chemicals that have been used in a wide range of products since the 1940s, including firefighting foam, carpeting, packaging, and cookware;

(2) there are more than 5,000 types of registered perfluoroalkyl and polyfluoroalkyl substances;

(3) perfluoroalkyl and polyfluoroalkyl substances are not currently regulated at the Federal level;

(4) perfluoroalkyl and polyfluoroalkyl substances—

(A) have been detected in air, water, soil, food, biosolids, and more, where they persist for a long time;

(B) can accumulate and remain in the human body and in wildlife and other biota for a long time; and

(C) can lead to serious health effects, including cancer, low infant birthweight, liver and kidney issues, reproductive and developmental problems, and more;

(5) there remains much unknown about—

(A) the toxicity, human and environmental health effects, exposure pathways, and effective

removal, treatment, and destruction methods of perfluoroalkyl and polyfluoroalkyl substances; and

(B) safe alternatives to perfluoroalkyl and polyfluoroalkyl substances;

(6) Federal research efforts have been fragmented at various Federal agencies and have struggled to effectively address the full scope of challenges presented by perfluoroalkyl and polyfluoroalkyl substances;

(7) regulatory action and cleanup with respect to perfluoroalkyl and polyfluoroalkyl substances depend on—

(A) scientific analysis of toxicity data of perfluoroalkyl and polyfluoroalkyl substances;

(B) decision making on how best to deal with the thousands of perfluoroalkyl and polyfluoroalkyl substances; and

(C) understanding the significance of the many exposure pathways for perfluoroalkyl and polyfluoroalkyl substances that exist; and

(8) a consensus study by the National Academies would help inform decisions by the Federal Government, State governments, industry, and other

stakeholders on how to best address perfluoroalkyl and polyfluoroalkyl substances.

SEC. 3. DEFINITIONS.

In this Act:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the Environmental Protection Agency.

(2) DIRECTOR.—The term ''Director'' means the Director of the National Science Foundation.

(3) NATIONAL ACADEMIES.—The term ''National Academies'' means the National Academies of Sciences, Engineering, and Medicine.

SEC. 4. NATIONAL ACADEMIES REPORTS.

(a) RESEARCH ASSESSMENTS OF PFAS EXPOSURE AND TOXICITY.—

(1) IN GENERAL.—Not later than 90 days after the date of enactment of this Act, the Director, in consultation with the Administrator, the Secretary of Defense, the Director of the National Institutes of Health, and the heads of other Federal agencies with expertise relevant to understanding exposure to and toxicity of perfluoroalkyl and polyfluoroalkyl substances, shall enter into an agreement with the National Academies—

(A) to conduct a 2-phase study in accordance with this subsection to identify research and development needed to advance human exposure estimations and toxicity and hazard estimations of individual perfluoroalkyl and polyfluoroalkyl substances or perfluoroalkyl and polyfluoroalkyl substances collectively; and

(B) to submit reports describing the results of the studies in accordance with this subsection.

(2) PHASE I STUDY AND REPORT ON HUMAN EXPOSURE ESTIMATION.—

(A) IN GENERAL.—The phase I study under paragraph (1) shall, at a minimum—

(i) consider lifecycle information on the manufacture, use, and disposal of products containing perfluoroalkyl and polyfluoroalkyl substances to identify potential human exposure sources and pathways;

(ii) evaluate—

(I) the fate and transport of perfluoroalkyl and polyfluoroalkyl substances; and

(II) the breakdown products of perfluoroalkyl and polyfluoroalkyl substances, as related to human exposure;

(iii) if feasible, estimate human exposure to individual perfluoroalkyl and polyfluoroalkyl substances or perfluoroalkyl and polyfluoroalkyl substances collectively to determine relative source contributions for various exposure pathways (such as air, water, soil, or food);

(iv) determine which perfluoroalkyl and polyfluoroalkyl substances are most likely to contribute to human exposure; and

(v) identify research that is needed to advance exposure estimations to individual perfluoroalkyl and polyfluoroalkyl substances or perfluoroalkyl and polyfluoroalkyl substances collectively.

(B) REPORT.—Not later than 1 year after the date on which the agreement described in paragraph (1) is finalized, the National Academies shall—

(i) submit to Congress a report containing the findings and recommendations of the study described in subparagraph (A); and

(ii) make the report under clause (i) available on a publicly accessible website.

(3) PHASE II STUDY AND REPORT ON PFAS TOXICITY AND HAZARD ESTIMATION.—

(A) IN GENERAL.—The phase II study under paragraph (1) shall, at a minimum—

(i)(I) review animal and human toxicity information on the perfluoroalkyl and polyfluoroalkyl substances most likely to contribute to human exposure, as identified in the phase I report under paragraph (2)(B)(i); and

(II) develop an approach for conducting a human health hazard assessment of the identified perfluoroalkyl and polyfluoroalkyl substances;

(ii) give consideration as to whether chemical category-based approaches for assessing hazards would be appropriate for evaluating perfluoroalkyl and polyfluoroalkyl substances as a group; and

(iii) identify research that is needed to advance toxicity and hazard assessments of individual perfluoroalkyl and polyfluoroalkyl substances or perfluoroalkyl and polyfluoroalkyl substances collectively.

(B) REPORT.—Not later than 1 year after the date on which the phase I report is submitted to Congress under paragraph (2)(B)(i), the National Academies shall—

(i) submit to Congress a report containing the findings and recommendations of the study described in subparagraph (A); and

(ii) make the report under clause (i) available on a publicly accessible website.

(b) RESEARCH ASSESSMENTS OF MANAGEMENT AND TREATMENT ALTERNATIVES FOR PFAS CONTAMINATION IN THE ENVIRONMENT AND DEVELOPMENT OF SAFE ALTERNATIVES.—

(1) IN GENERAL.—Not later than 90 days after the date of enactment of this Act, the Director and the Administrator, in consultation with the Secretary of Defense and the heads of other Federal agencies with expertise relevant to the development of alternatives to perfluoroalkyl and polyfluoroalkyl

substances and the management and treatment of perfluoroalkyl and polyfluoroalkyl substances, shall jointly enter into an agreement with the National Academies—

(A) to conduct a 2-phase study in accordance with this subsection to better understand—

(i) the research and development needed to advance the understanding of the extent and implications of environmental contamination by perfluoroalkyl and polyfluoroalkyl substances;

(ii) the best methods to manage and treat that contamination; and

(iii) the development of safe alternatives to perfluoroalkyl and polyfluoroalkyl substances; and

(B) to submit reports describing the results of the studies in accordance with this subsection.

(2) PHASE I STUDY AND REPORT ON TREATMENT AND REMEDIATION.—

(A) IN GENERAL.—The phase I study under paragraph (1) shall, at a minimum—

(i) assess the best available strategies for treatment, site remediation, and safe disposal of perfluoroalkyl and polyfluoroalkyl substances; and

(ii) describe research gaps relating to the issues described in clause (i), including socioeconomic considerations and ways that the Federal Government can address the research needs.

(B) REPORT.—Not later than 18 months after the date on which the agreement described in paragraph (1) is finalized, the National Academies shall—

(i) submit to Congress a report containing the findings and recommendations of the study described in subparagraph (A); and

(ii) make the report under clause (i) available on a publicly accessible website.

(3) PHASE II STUDY AND REPORT ON ASSESSMENT OF SAFE ALTERNATIVES FOR PFAS.—

(A) IN GENERAL.—The phase II study under paragraph (1) shall, at a minimum—

(i) examine the state of knowledge for alternatives to perfluoroalkyl and

polyfluoroalkyl substances in applications currently, as of the date of the study, using perfluoroalkyl and polyfluoroalkyl substances that contribute to significant human health or ecological exposures and potential risk; and

(ii) identify research needs to address the highest priorities for development of alternatives to perfluoroalkyl and polyfluoroalkyl substances.

(B) REPORT.—Not later than 3 years after the date on which the agreement described in paragraph (1) is finalized, the National Academies shall—

(i) submit to Congress a report containing the findings and recommendations of the study described in subparagraph (A); and

(ii) make the report under clause (i) available on a publicly accessible website.

SEC. 5. IMPLEMENTATION PLAN.

(a) IN GENERAL.—Not later than 180 days after the date on which all reports from the National Academies under section 4 have been submitted to Congress, the Director of the Office of Science and Technology Policy, in

coordination with the heads of all relevant Federal agencies, shall submit to Congress an implementation plan for increased collaboration and coordination of Federal research, development, and demonstration activities with respect to perfluoroalkyl and polyfluoroalkyl substances.

(b) REQUIREMENT.—In preparing the implementation plan under subsection (a), the Director of the Office of Science and Technology Policy shall take into consideration the recommendations included in the reports submitted to Congress under section 4.

○