

cluding physics, engineering, mathematics, computer science, chemistry, and material science;

(C) how the Center will support long-term and short-term workforce development in the quantum field;

(D) how the Center can support an innovation ecosystem to work with industry to translate Center research into applications; and

(E) a long-term plan to become self-sustaining after the expiration of funding under this section.

(e) Selection and duration

(1) In general

Each Center established under this section is authorized to carry out activities for a period of 5 years.

(2) Reapplication

An awardee may reapply for additional, subsequent periods of 5 years on a competitive, merit-reviewed basis.

(3) Termination

Consistent with the authorities of the National Science Foundation, the Director of the National Science Foundation may terminate an underperforming Center for cause during the performance period.

(f) Funding

The Director of the National Science Foundation shall allocate up to \$10,000,000 for each Center established under this section for each of fiscal years 2019 through 2023, subject to the availability of appropriations. Amounts made available to carry out this section shall be derived from amounts appropriated or otherwise made available to the National Science Foundation.

(Pub. L. 115-368, title III, §302, Dec. 21, 2018, 132 Stat. 5100.)

SUBCHAPTER IV—DEPARTMENT OF ENERGY QUANTUM ACTIVITIES

§ 8851. Quantum information science research program

(a) In general

The Secretary of Energy shall carry out a basic research program on quantum information science.

(b) Program components

In carrying out the program under subsection (a), the Secretary of Energy shall—

(1) formulate goals for quantum information science research to be supported by the Department of Energy;

(2) leverage the collective body of knowledge from existing quantum information science research;

(3) provide research experiences and training for additional undergraduate and graduate students in quantum information science, including in the fields of—

(A) quantum information theory;

(B) quantum physics;

(C) quantum computational science;

(D) applied mathematics and algorithm development;

(E) quantum networking;

(F) quantum sensing and detection; and

(G) materials science and engineering;

(4) coordinate research efforts funded through existing programs across the Department of Energy, including—

(A) the Nanoscale Science Research Centers;

(B) the Energy Frontier Research Centers;

(C) the Energy Innovation Hubs;

(D) the National Laboratories;

(E) the Advanced Research Projects Agency; and

(F) the National Quantum Information Science Research Centers; and

(5) coordinate with other Federal departments and agencies, research communities, and potential users of information produced under this section.

(Pub. L. 115-368, title IV, §401, Dec. 21, 2018, 132 Stat. 5101.)

§ 8852. National Quantum Information Science Research Centers

(a) Establishment

(1) In general

The Secretary of Energy, acting through the Director of the Office of Science (referred to in this section as the “Director”), shall ensure that the Office of Science carries out a program, in consultation with other Federal departments and agencies, as appropriate, to establish and operate at least 2, but not more than 5, National Quantum Information Science Research Centers (referred to in this section as “Centers”) to conduct basic research to accelerate scientific breakthroughs in quantum information science and technology and to support research conducted under section 8851 of this title.

(2) Requirements

(A) Competitive, merit-reviewed process

The Centers shall be established through a competitive, merit-reviewed process.

(B) Applications

An eligible applicant under this subsection shall submit to the Director an application at such time, in such manner, and containing such information as the Director determines to be appropriate.

(C) Eligible applicants

The Director shall consider applications from National Laboratories, institutions of higher education, research centers, multi-institutional collaborations, and any other entity that the Secretary of Energy determines to be appropriate.

(b) Collaborations

A collaboration that receives an award under this section may include multiple types of research institutions and private sector entities.

(c) Requirements

To the maximum extent practicable, the Centers developed, constructed, operated, or maintained under this section shall serve the needs of

the Department of Energy, industry, the academic community, and other relevant entities to create and develop processes for the purpose of advancing basic research in quantum information science and improving the competitiveness of the United States.

(d) Coordination

The Secretary of Energy shall ensure the coordination, and avoid unnecessary duplication, of the activities of each Center with the activities of—

- (1) other research entities of the Department of Energy, including—
 - (A) the Nanoscale Science Research Centers;
 - (B) the Energy Frontier Research Centers;
 - (C) the Energy Innovation Hubs; and
 - (D) the National Laboratories;
- (2) institutions of higher education; and
- (3) industry.

(e) Duration

(1) In general

Each Center established under this section is authorized to carry out activities for a period of 5 years.

(2) Reapplication

An awardee may reapply for additional, subsequent periods of 5 years. The Director shall approve or disapprove of each reapplication on a competitive, merit-reviewed basis.

(3) Termination

Consistent with the authorities of the Department of Energy, the Secretary of Energy may terminate an underperforming Center for cause during the performance period.

(f) Funding

The Secretary of Energy shall allocate up to \$25,000,000 for each Center established under this section for each of fiscal years 2019 through 2023, subject to the availability of appropriations. Amounts made available to carry out this section shall be derived from amounts appropriated or otherwise made available to the Department of Energy.

(Pub. L. 115-368, title IV, §402, Dec. 21, 2018, 132 Stat. 5101.)

CHAPTER 115—PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES AND EMERGING CONTAMINANTS

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§ 8901. Definition of Administrator

In this chapter, the term “Administrator” means the Administrator of the Environmental Protection Agency.

(Pub. L. 116-92, div. F, title LXXIII, §7302, Dec. 20, 2019, 133 Stat. 2275.)

REFERENCES IN TEXT

This chapter, referred to in text, was in the original “this title”, meaning title LXXIII of Pub. L. 116-92, div. F, Dec. 20, 2019, 133 Stat. 2275, known as the PFAS Act of 2019, which is classified principally to this chapter. For complete classification of this Act to the Code, see Short Title note set out below and Tables.

SHORT TITLE

Pub. L. 116-92, div. F, title LXXIII, §7301, Dec. 20, 2019, 133 Stat. 2275, provided that: “This title [enacting this chapter and amending section 2607 of this title and sections 300j-12 and 11023 of Title 42, The Public Health and Welfare] may be cited as the ‘PFAS Act of 2019’.”

SUBCHAPTER I—DRINKING WATER

§ 8911. Monitoring and detection

(a) Monitoring program for unregulated contaminants

(1) In general

The Administrator shall include each substance described in paragraph (2) in the fifth publication of the list of unregulated contaminants to be monitored under section 300j-4(a)(2)(B)(i) of title 42.

(2) Substances described

The substances referred to in paragraph (1) are perfluoroalkyl and polyfluoroalkyl substances and classes of perfluoroalkyl and polyfluoroalkyl substances—

- (A) for which a method to measure the level in drinking water has been validated by the Administrator; and
- (B) that are not subject to a national primary drinking water regulation.

(3) Exception

The perfluoroalkyl and polyfluoroalkyl substances and classes of perfluoroalkyl and polyfluoroalkyl substances included in the list of unregulated contaminants to be monitored under section 300j-4(a)(2)(B)(i) of title 42 under paragraph (1) shall not count towards the limit of 30 unregulated contaminants to be monitored by public water systems under that section.

(b) Applicability

(1) In general

The Administrator shall—

- (A) require public water systems serving more than 10,000 persons to monitor for the substances described in subsection (a)(2);