

Pub. L. 117-263, div. E, title LIX, §5914(2), Dec. 23, 2022, 136 Stat. 3449; Pub. L. 118-31, div. C, title XXXI, §3131(p)(2), Dec. 22, 2023, 137 Stat. 803.)

Editorial Notes

REFERENCES IN TEXT

Section 502 of the America COMPETES Reauthorization Act of 2010, referred to in subsec. (a)(9)(C), is section 502 of Pub. L. 111-358, which is set out as a note under section 1862p of this title.

AMENDMENTS

2023—Subsec. (b). Pub. L. 118-31, §3131(p)(2)(A), struck out “graduate” before “traineeship” in heading.

Subsec. (b)(1). Pub. L. 118-31, §3131(p)(2)(B), struck out “graduate” before “traineeship” and before “traineeships”.

Subsec. (b)(2)(A). Pub. L. 118-31, §3131(p)(2)(F), added subpar. (A) relating to focus areas. Amendment directing addition of subpar. (A) “after paragraph (2)” was executed by adding subpar. (A) at end of par. (2).

Pub. L. 118-31, §3131(p)(2)(C), inserted “community colleges, trade schools, registered apprenticeship programs, pre-apprenticeship programs,” after “affected universities,” in subpar. (A) relating to appropriate partnerships among National Laboratories.

Subsec. (b)(2)(B). Pub. L. 118-31, §3131(p)(2)(B), struck out “graduate” before “traineeships”.

Subsec. (b)(3), (4). Pub. L. 118-31, §3131(p)(2)(D), (E), substituted “2023 through 2027” for “2021 through 2025” in par. (3) and then redesignated par. (3) as (4).

2022—Subsec. (a)(2)(D). Pub. L. 117-167, §10743(1), amended subpar. (D) generally. Prior to amendment, subpar. (D) read as follows: “encourage collaborative nuclear research among industry, National Laboratories, and universities; and”.

Subsec. (a)(4). Pub. L. 117-167, §10743(2), amended par. (4) generally. Prior to amendment, text read as follows: “In carrying out the program under this subsection, the Secretary may support—

“(A) converting research reactors from high-enrichment fuels to low-enrichment fuels and upgrading operational instrumentation;

“(B) consortia of universities to broaden access to university research reactors;

“(C) student training programs, in collaboration with the United States nuclear industry, in relicensing and upgrading reactors, including through the provision of technical assistance; and

“(D) reactor improvements that emphasize research, training, and education, including through the Innovations in Nuclear Infrastructure and Education Program or any similar program.”

Subsec. (a)(5). Pub. L. 117-167, §10744(2), added par. (5). Former par. (5) redesignated (6)

Subsec. (a)(5)(E), (F). Pub. L. 117-263 added subpar. (E) and redesignated former subpar. (E) as (F).

Subsec. (a)(6) to (8). Pub. L. 117-167, §10744(1), resigned pars. (5) to (7) as (6) to (8), respectively. Former par. (8) redesignated (9).

Subsec. (a)(9). Pub. L. 117-167, §10744(1), (3), redesignated par. (8) as (9) and amended it generally. Prior to amendment, par. defined “junior faculty”.

2021—Subsec. (a)(6). Pub. L. 117-58 inserted “, excluding funds appropriated for the Advanced Reactor Demonstration Program of the Department,” after “annually”.

2020—Pub. L. 116-260, §2003(c)(1), substituted “Nuclear” for “University nuclear” in section catchline.

Subsec. (a). Pub. L. 116-260, §2003(c)(10), designated existing provisions as subsec. (a) and inserted heading.

Pub. L. 116-260, §2003(c)(9), added pars. (5) and (6).

Subsec. (b). Pub. L. 116-260, §2003(c)(11), added subsec. (b).

Pub. L. 116-260, §2003(c)(7), redesignated subsec. (b) as par. (2).

Pub. L. 116-260, §2003(c)(2), substituted “this subsection” for “this section” in introductory provisions,

redesignated pars. (1) to (5) as subpars. (A) to (E), respectively, and realigned margins.

Subsec. (c). Pub. L. 116-260, §2003(c)(7), redesignated subsec. (c) as par. (3).

Pub. L. 116-260, §2003(c)(3), redesignated pars. (1) and (2) as subpars. (A) and (B), respectively, and realigned margins.

Subsec. (d). Pub. L. 116-260, §2003(c)(7), redesignated subsec. (d) as par. (4).

Pub. L. 116-260, §2003(c)(4), substituted “this subsection” for “this section” in introductory provisions, redesignated pars. (1) to (4) as subpars. (A) to (D), respectively, and realigned margins.

Subsec. (e). Pub. L. 116-260, §2003(c)(8), redesignated subsec. (e) as par. (7). Margins realigned to reflect the probable intent of Congress.

Pub. L. 116-260, §2003(c)(5), substituted “this subsection” for “this section”.

Subsec. (f). Pub. L. 116-260, §2003(c)(8), redesignated subsec. (f) as par. (8). Margins realigned to reflect the probable intent of Congress.

Pub. L. 116-260, §2003(c)(6), substituted “this subsection” for “this section” and “paragraph (2)(B)” for “subsection (b)(2)”.

2018—Subsec. (d)(4). Pub. L. 115-248 substituted “that emphasize” for “as part of a taking into consideration effort that emphasizes”.

Statutory Notes and Related Subsidiaries

PURPOSES

Pub. L. 117-167, div. B, title VI, §10742, Aug. 9, 2022, 136 Stat. 1718, provided that: “The purposes of this subtitle [subtitle L (§§10741-10745) of title VI of div. B of Pub. L. 117-167, amending this section and section 16274a of this title and enacting provisions set out as notes under sections 15801 and 16274a of this title] are—

“(1) to upgrade the nuclear research capabilities of universities in the United States to meet the research requirements of advanced nuclear energy systems;

“(2) to ensure the continued operation of university research reactors;

“(3) to coordinate available resources to enable the establishment, including the start and efficient completion of construction, of new nuclear science and engineering facilities; and

“(4) to support—

“(A) workforce development critical to maintaining United States leadership in nuclear science and engineering and related disciplines; and

“(B) the establishment or enhancement of nuclear science and engineering capabilities and other, related capabilities at historically Black colleges and universities, Tribal colleges or universities, minority-serving institutions, EPSCoR universities, junior or community colleges, and associate-degree-granting colleges.”

[For definitions of terms used in section 10742 of div. B of Pub. L. 117-167, set out above, see section 18901 of this title.]

WAGE RATE REQUIREMENTS

For provisions relating to rates of wages to be paid to laborers and mechanics on projects for construction, alteration, or repair work funded under div. D or an amendment by div. D of Pub. L. 117-58, including authority of Secretary of Labor, see section 18851 of this title.

§ 16274a. University Nuclear Leadership Program

(a) In general

The Secretary of Energy, the Administrator of the National Nuclear Security Administration, and the Chairman of the Commission shall jointly establish a program, to be known as the “University Nuclear Leadership Program”.

(b) Use of funds**(1) In general**

Except as provided in paragraph (2) and subsection (c), amounts made available to carry out the Program shall be used to provide financial assistance for scholarships, fellowships, and research and development projects at institutions of higher education in areas relevant to the programmatic mission of the applicable Federal agency, with an emphasis on providing the financial assistance with respect to research, development, demonstration, and commercial application activities relevant to civilian advanced nuclear reactors including, but not limited to—

- (A) relevant fuel cycle technologies;
- (B) project management; and
- (C) advanced construction, manufacturing, and fabrication methods.

(2) Exception

Notwithstanding paragraph (1), amounts made available to carry out the Program may be used to provide financial assistance for a scholarship, fellowship, or multiyear research and development project that does not align directly with a programmatic mission of the Department of Energy, if the activity for which assistance is provided would facilitate the maintenance of the discipline of nuclear science or engineering, which may include nontechnical nuclear research..¹

(c) Nuclear energy traineeship subprogram**(1) In general**

The Commission shall establish, as a subprogram of the Program, a nuclear energy traineeship subprogram under which the Commission, in coordination with institutions of higher education and trade schools, shall competitively award traineeships that provide focused training to meet critical mission needs of the Commission and nuclear workforce needs, including needs relating to the nuclear tradecraft workforce.

(2) Requirements

In carrying out the nuclear energy traineeship subprogram described in paragraph (1), the Commission shall—

(A) coordinate with the Secretary of Energy to prioritize the funding of traineeships that focus on—

- (i) nuclear workforce needs; and
- (ii) critical mission needs of the Commission;

(B) encourage appropriate partnerships among—

- (i) National Laboratories;
- (ii) institutions of higher education;
- (iii) trade schools;
- (iv) the nuclear energy industry; and
- (v) other entities, as the Commission determines to be appropriate; and

(C) on an annual basis, evaluate nuclear workforce needs for the purpose of implementing traineeships in focused topical areas that—

- (i) address the workforce needs of the nuclear energy community; and
- (ii) support critical mission needs of the Commission.

(d) Definitions

In this section:

(1) Advanced nuclear reactor

The term “advanced nuclear reactor” has the meaning given the term in section 16271(b) of this title.

(2) Commission

The term “Commission” means the Nuclear Regulatory Commission.

(3)² Institution of higher education

The term “institution of higher education” has the meaning given the term in section 15801 of this title.

(4) National Laboratory

The term “National Laboratory” has the meaning given the term in section 16271(b) of this title.

(5) Program

The term “Program” means the University Nuclear Leadership Program established under this section.

(3)³ Nontechnical nuclear research

The term “nontechnical nuclear research” means research with specializations such as social sciences or law that can support an increase in community engagement, participation, and confidence in nuclear energy systems, including the navigation of the licensing required for advanced reactor deployment, aligned with the objectives in section 16271(a)(2) of this title.

(e) Authorization of appropriations

There are authorized to be appropriated to carry out the Program for each of fiscal years 2021 through 2025—

- (1) \$45,000,000 to the Secretary of Energy, of which \$15,000,000 shall be for use by the Administrator of the National Nuclear Security Administration; and
- (2) \$15,000,000 to the Commission.

(Pub. L. 111–8, div. C, title III, §313, Mar. 11, 2009, 123 Stat. 627; Pub. L. 116–260, div. Z, title II, §2003(e), Dec. 27, 2020, 134 Stat. 2465; Pub. L. 117–167, div. B, title VI, §10745(b), Aug. 9, 2022, 136 Stat. 1721; Pub. L. 118–67, div. B, title IV, §402, July 9, 2024, 138 Stat. 1467.)

Editorial Notes**CODIFICATION**

Section was enacted as part of the Energy and Water Development and Related Agencies Appropriations Act, 2009, and also as part of the Omnibus Appropriations Act, 2009, and not as part of the Energy Policy Act of 2005 which comprises this chapter.

AMENDMENTS

2024—Subsec. (a). Pub. L. 118–67, §402(1), struck out “Nuclear Regulatory” before “Commission”.

¹ So in original.

² So in original. Another par. (3) follows par. (5).

³ So in original. Another par. (3) follows par. (2).

Subsec. (b)(1). Pub. L. 118–67, § 402(2), inserted “and subsection (c)” after “paragraph (2)” in introductory provisions.

Subsec. (c). Pub. L. 118–67, § 402(6), added subsec. (c). Former subsec. (c) redesignated (d).

Pub. L. 118–67, § 402(3), added pars. (1) to (4), redesignated former par. (2) as (5), and struck out former par. (1) which defined “advanced nuclear reactor” and “institution of higher education”.

Subsec. (d). Pub. L. 118–67, § 402(5), redesignated subsec. (c) as (d). Former subsec. (d) redesignated (e).

Subsec. (d)(2). Pub. L. 118–67, § 402(4), struck out “Nuclear Regulatory” before “Commission”.

Subsec. (e). Pub. L. 118–67, § 402(5), redesignated subsec. (d) as (e).

2022—Subsec. (b)(2). Pub. L. 117–167, § 10745(b)(1), inserted “, which may include nontechnical nuclear research.” after “engineering”.

Subsec. (c)(3). Pub. L. 117–167, § 10745(b)(2), added par. (3).

Subsec. (d)(1). Pub. L. 117–167, § 10745(b)(3), substituted “\$45,000,000” for “\$30,000,000”.

2020—Pub. L. 116–260 amended section generally. Prior to amendment, section related to Integrated University Program.

Statutory Notes and Related Subsidiaries

PURPOSE OF 2022 AMENDMENT

Pub. L. 117–167, div. B, title VI, § 10745(a), Aug. 9, 2022, 136 Stat. 1721, provided that: “The purpose of this section [amending this section] is to support a diverse workforce for the complex landscape associated with effective and equitable development of advanced nuclear energy technologies, including interdisciplinary research to enable positive impacts and avoid potential negative impacts across the lifespan of nuclear energy technologies.”

§ 16275. Department of Energy civilian nuclear infrastructure and facilities

(a) In general

The Secretary shall operate and maintain infrastructure and facilities to support the nuclear energy research, development, demonstration, and commercial application programs, including radiological facilities management, isotope production, and facilities management.

(b) Duties

In carrying out this section, the Secretary shall—

(1) develop an inventory of nuclear science and engineering facilities, equipment, expertise, and other assets at all of the National Laboratories;

(2) develop a prioritized list of nuclear science and engineering plant and equipment improvements needed at each of the National Laboratories;

(3) consider the available facilities and expertise at all National Laboratories and emphasize investments which complement rather than duplicate capabilities; and

(4) develop a timeline and a proposed budget for the completion of deferred maintenance on plant and equipment, with the goal of ensuring that Department programs under this part will be generally recognized to be among the best in the world.

(c) Versatile neutron source

(1) Authorization

(A) In general

Not later than December 31, 2017, the Secretary shall provide for a versatile reactor-

based fast neutron source, which shall operate as a national user facility.

(B) Consultations required

In carrying out subparagraph (A), the Secretary shall consult with the private sector, institutions of higher education, the National Laboratories, and relevant Federal agencies to ensure that the user facility described in subparagraph (A) will meet the research needs of the largest practicable majority of prospective users.

(2) Establishment

As soon as practicable after determining the mission need under paragraph (1)(A), the Secretary shall submit to the appropriate committees of Congress a detailed plan for the establishment of the user facility.

(3) Facility requirements

(A) Capabilities

The Secretary shall ensure that the user facility will provide, at a minimum, the following capabilities:

(i) Fast neutron spectrum irradiation capability.

(ii) Capacity for upgrades to accommodate new or expanded research needs.

(B) Considerations

In carrying out the plan submitted under paragraph (2), the Secretary shall consider the following:

(i) Capabilities that support experimental high-temperature testing.

(ii) Providing a source of fast neutrons at a neutron flux, higher than that at which current research facilities operate, sufficient to enable research for an optimal base of prospective users.

(iii) Maximizing irradiation flexibility and irradiation volume to accommodate as many concurrent users as possible.

(iv) Capabilities for irradiation with neutrons of a lower energy spectrum.

(v) Multiple loops for fuels and materials testing in different coolants.

(vi) Additional pre-irradiation and post-irradiation examination capabilities.

(vii) Lifetime operating costs and lifecycle costs.

(4) Deadline for establishment

The Secretary shall, to the maximum extent practicable, complete construction of, and approve the start of operations for, the user facility by not later than December 31, 2026.

(5) Reporting

The Secretary shall include in the annual budget request of the Department an explanation for any delay in the progress of the Department in completing the user facility by the deadline described in paragraph (4).

(6) Coordination

The Secretary shall leverage the best practices for management, construction, and operation of national user facilities from the Office of Science.

(7) Authorization of appropriations

There are authorized to be appropriated to the Secretary to carry out to completion the