

AMENDMENT NO. _____ Calendar No. _____

Purpose: In the nature of a substitute.

IN THE SENATE OF THE UNITED STATES—118th Cong., 1st Sess.

S. 1111

To enhance United States civil nuclear leadership, support the licensing of advanced nuclear technologies, strengthen the domestic nuclear energy fuel cycle and supply chain, and improve the regulation of nuclear energy, and for other purposes.

Referred to the Committee on _____ and
ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT IN THE NATURE OF A SUBSTITUTE intended
to be proposed by Mr. CARPER (for himself and Mrs. CAPITO)

Viz:

1 Strike all after the enacting clause and insert the fol-
2 lowing:

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the
5 “Accelerating Deployment of Versatile, Advanced Nuclear
6 for Clean Energy Act of 2023” or the “ADVANCE Act
7 of 2023”.

8 (b) TABLE OF CONTENTS.—The table of contents for
9 this Act is as follows:

- Sec. 1. Short title; table of contents.
Sec. 2. Definitions.

2

TITLE I—AMERICAN NUCLEAR LEADERSHIP

- Sec. 101. International nuclear reactor export and innovation activities.
- Sec. 102. Denial of certain domestic licenses for national security purposes.
- Sec. 103. Export license requirements.
- Sec. 104. Coordinated international engagement.

TITLE II—DEVELOPING AND DEPLOYING NEW NUCLEAR TECHNOLOGIES

- Sec. 201. Fees for advanced nuclear reactor application review.
- Sec. 202. Advanced nuclear reactor prizes.
- Sec. 203. Report on unique licensing considerations relating to the use of nuclear energy for nonelectric applications.
- Sec. 204. Enabling preparations for the demonstration of advanced nuclear reactors on Department of Energy sites or critical national security infrastructure sites.
- Sec. 205. Clarification on fusion regulation.
- Sec. 206. Regulatory issues for nuclear facilities at brownfield sites.
- Sec. 207. Appalachian Regional Commission nuclear energy development.

TITLE III—PRESERVING EXISTING NUCLEAR ENERGY GENERATION

- Sec. 301. Investment by allies.
- Sec. 302. Extension of the Price-Anderson Act.

TITLE IV—NUCLEAR FUEL CYCLE, SUPPLY CHAIN, INFRASTRUCTURE, AND WORKFORCE

- Sec. 401. Report on advanced methods of manufacturing and construction for nuclear energy applications.
- Sec. 402. Nuclear energy traineeship.
- Sec. 403. Report on Commission readiness and capacity to license additional conversion and enrichment capacity to reduce reliance on uranium from Russia.
- Sec. 404. Annual report on the spent nuclear fuel and high-level radioactive waste inventory in the United States.
- Sec. 405. Authorization of appropriations for superfund actions at abandoned mining sites on Tribal land.
- Sec. 406. Development, qualification, and licensing of advanced nuclear fuel concepts.

TITLE V—IMPROVING COMMISSION EFFICIENCY

- Sec. 501. Commission workforce.
- Sec. 502. Commission corporate support funding.
- Sec. 503. Performance and reporting update.

TITLE VI—MISCELLANEOUS

- Sec. 601. Nuclear closure communities.
- Sec. 602. Technical correction.
- Sec. 603. Report on engagement with the Government of Canada with respect to nuclear waste issues in the Great Lakes Basin.

1 **SEC. 2. DEFINITIONS.**

2 In this Act:

3 (1) ACCIDENT TOLERANT FUEL.—The term
4 “accident tolerant fuel” has the meaning given the
5 term in section 107(a) of the Nuclear Energy Inno-
6 vation and Modernization Act (Public Law 115–439;
7 132 Stat. 5577).

8 (2) ADMINISTRATOR.—The term “Adminis-
9 trator” means the Administrator of the Environ-
10 mental Protection Agency.

11 (3) ADVANCED NUCLEAR FUEL.—The term
12 “advanced nuclear fuel” means—

13 (A) advanced nuclear reactor fuel; and

14 (B) accident tolerant fuel.

15 (4) ADVANCED NUCLEAR REACTOR.—The term
16 “advanced nuclear reactor” has the meaning given
17 the term in section 3 of the Nuclear Energy Inno-
18 vation and Modernization Act (42 U.S.C. 2215 note;
19 Public Law 115–439).

20 (5) ADVANCED NUCLEAR REACTOR FUEL.—The
21 term “advanced nuclear reactor fuel” has the mean-
22 ing given the term in section 3 of the Nuclear En-
23 ergy Innovation and Modernization Act (42 U.S.C.
24 2215 note; Public Law 115–439).

1 (6) APPROPRIATE COMMITTEES OF
2 CONGRESS.—The term “appropriate committees of
3 Congress” means—

4 (A) the Committee on Environment and
5 Public Works of the Senate; and

6 (B) the Committee on Energy and Com-
7 merce of the House of Representatives.

8 (7) COMMISSION.—The term “Commission”
9 means the Nuclear Regulatory Commission.

10 (8) INSTITUTION OF HIGHER EDUCATION.—The
11 term “institution of higher education” has the
12 meaning given the term in section 101(a) of the
13 Higher Education Act of 1965 (20 U.S.C. 1001(a)).

14 (9) NATIONAL LABORATORY.—The term “Na-
15 tional Laboratory” has the meaning given the term
16 in section 2 of the Energy Policy Act of 2005 (42
17 U.S.C. 15801).

18 **TITLE I—AMERICAN NUCLEAR**
19 **LEADERSHIP**

20 **SEC. 101. INTERNATIONAL NUCLEAR REACTOR EXPORT**
21 **AND INNOVATION ACTIVITIES.**

22 (a) COORDINATION.—

23 (1) IN GENERAL.—The Commission shall—

24 (A) coordinate all work of the Commission
25 relating to—

1 (i) nuclear reactor import and export
2 licensing; and

3 (ii) international regulatory coopera-
4 tion and assistance relating to nuclear re-
5 actors, including with countries that are
6 members of—

7 (I) the Organisation for Eco-
8 nomic Co-operation and Development;
9 or

10 (II) the Nuclear Energy Agency;
11 and

12 (B) support interagency and international
13 coordination with respect to—

14 (i) the consideration of international
15 technical standards to establish the licens-
16 ing and regulatory basis to assist the de-
17 sign, construction, and operation of nu-
18 clear systems;

19 (ii) efforts to help build competent nu-
20 clear regulatory organizations and legal
21 frameworks in countries seeking to develop
22 nuclear power; and

23 (iii) exchange programs and training
24 provided to other countries relating to nu-
25 clear regulation and oversight to improve

1 nuclear technology licensing, in accordance
2 with paragraph (2).

3 (2) EXCHANGE PROGRAMS AND TRAINING.—

4 With respect to the exchange programs and training
5 described in paragraph (1)(B)(iii), the Commission
6 shall coordinate, as applicable, with—

7 (A) the Secretary of Energy;

8 (B) National Laboratories;

9 (C) the private sector; and

10 (D) institutions of higher education.

11 (b) AUTHORITY TO ESTABLISH BRANCH.—The Com-
12 mission may establish within the Office of International
13 Programs a branch, to be known as the “International
14 Nuclear Reactor Export and Innovation Branch”, to carry
15 out such international nuclear reactor export and innova-
16 tion activities as the Commission determines to be appro-
17 priate and within the mission of the Commission.

18 (c) EXCLUSION OF INTERNATIONAL ACTIVITIES
19 FROM THE FEE BASE.—

20 (1) IN GENERAL.—Section 102 of the Nuclear
21 Energy Innovation and Modernization Act (42
22 U.S.C. 2215) is amended—

23 (A) in subsection (a), by adding at the end
24 the following:

1 “(4) INTERNATIONAL NUCLEAR REACTOR EX-
2 PORT AND INNOVATION ACTIVITIES.—The Commis-
3 sion shall identify in the annual budget justification
4 international nuclear reactor export and innovation
5 activities described in section 101(a) of the AD-
6 VANCE Act of 2023.”; and

7 (B) in subsection (b)(1)(B), by adding at
8 the end the following:

9 “(iv) Costs for international nuclear
10 reactor export and innovation activities de-
11 scribed in section 101(a) of the AD-
12 VANCE Act of 2023.”.

13 (2) EFFECTIVE DATE.—The amendments made
14 by paragraph (1) shall take effect on October 1,
15 2024.

16 (d) SAVINGS CLAUSE.—Nothing in this section alters
17 the authority of the Commission to license and regulate
18 the civilian use of radioactive materials.

19 **SEC. 102. DENIAL OF CERTAIN DOMESTIC LICENSES FOR**
20 **NATIONAL SECURITY PURPOSES.**

21 (a) DEFINITION OF COVERED FUEL.—In this sec-
22 tion, the term “covered fuel” means enriched uranium
23 that is fabricated into fuel assemblies for nuclear reactors
24 by an entity that—

1 (1) is owned or controlled by the Government of
2 the Russian Federation or the Government of the
3 People's Republic of China; or

4 (2) is organized under the laws of, or otherwise
5 subject to the jurisdiction of, the Russian Federation
6 or the People's Republic of China.

7 (b) PROHIBITION ON UNLICENSED POSSESSION OR
8 OWNERSHIP OF COVERED FUEL.—Unless specifically au-
9 thorized by the Commission in a license issued under sec-
10 tion 53 of the Atomic Energy Act of 1954 (42 U.S.C.
11 2073) and part 70 of title 10, Code of Federal Regulations
12 (or successor regulations), no person subject to the juris-
13 diction of the Commission may possess or own covered
14 fuel.

15 (c) LICENSE TO POSSESS OR OWN COVERED
16 FUEL.—

17 (1) CONSULTATION REQUIRED PRIOR TO
18 ISSUANCE.—The Commission shall not issue a li-
19 cense to possess or own covered fuel under section
20 53 of the Atomic Energy Act of 1954 (42 U.S.C.
21 2073) and part 70 of title 10, Code of Federal Reg-
22 ulations (or successor regulations), unless the Com-
23 mission has first consulted with the Secretary of En-
24 ergy and the Secretary of State before issuing the li-
25 cense.

1 (2) PROHIBITION ON ISSUANCE OF LICENSE.—

2 (A) IN GENERAL.—Subject to subpara-
3 graph (C), a license to possess or own covered
4 fuel shall not be issued if the Secretary of En-
5 ergy and the Secretary of State make the deter-
6 mination described in subparagraph (B).

7 (B) DETERMINATION.—

8 (i) IN GENERAL.—The determination
9 referred to in subparagraph (A) is a deter-
10 mination that possession or ownership, as
11 applicable, of covered fuel poses a threat to
12 the national security of the United States
13 that adversely impacts the physical and
14 economic security of the United States.

15 (ii) JOINT DETERMINATION.—A deter-
16 mination described in clause (i) shall be
17 jointly made by the Secretary of Energy
18 and the Secretary of State.

19 (iii) TIMELINE.—

20 (I) NOTICE OF APPLICATION.—

21 Not later than 30 days after the date
22 on which the Commission receives an
23 application for a license to possess or
24 own covered fuel, the Commission
25 shall notify the Secretary of Energy

1 and the Secretary of State of the ap-
2 plication.

3 (II) DETERMINATION.—The Sec-
4 retary of Energy and the Secretary of
5 State shall have a period of 180 days,
6 beginning on the date on which the
7 Commission notifies the Secretary of
8 Energy and the Secretary of State
9 under subclause (I) of an application
10 for a license to possess or own covered
11 fuel, in which to make the determina-
12 tion described in clause (i).

13 (III) COMMISSION NOTIFICA-
14 TION.—On making the determination
15 described in clause (i), the Secretary
16 of Energy and the Secretary of State
17 shall immediately notify the Commis-
18 sion.

19 (IV) CONGRESSIONAL NOTIFICA-
20 TION.—Not later than 30 days after
21 the date on which the Secretary of
22 Energy and the Secretary of State no-
23 tify the Commission under subclause
24 (III), the Commission shall notify the

1 appropriate committees of Congress of
2 the determination.

3 (V) PUBLIC NOTICE.—Not later
4 than 15 days after the date on which
5 the Commission notifies Congress
6 under subclause (IV) of a determina-
7 tion made under clause (i), the Com-
8 mission shall make that determination
9 publicly available.

10 (C) EFFECT OF NO DETERMINATION.—
11 The prohibition described in subparagraph (A)
12 shall not apply if the Secretary of Energy and
13 the Secretary of State do not make the deter-
14 mination described in subparagraph (B) by the
15 date described in clause (iii)(II) of that sub-
16 paragraph.

17 (d) SAVINGS CLAUSE.—Nothing in this section alters
18 any treaty or international agreement in effect on the date
19 of enactment of this Act.

20 **SEC. 103. EXPORT LICENSE REQUIREMENTS.**

21 (a) DEFINITION OF LOW-ENRICHED URANIUM.—In
22 this section, the term “low-enriched uranium” means ura-
23 nium enriched to less than 20 percent of the uranium-
24 235 isotope.

1 (b) REQUIREMENT.—The Commission shall not issue
2 an export license for the transfer of any item described
3 in subsection (d) to a country described in subsection (c)
4 unless the Commission makes a determination that such
5 transfer will not be inimical to the common defense and
6 security of the United States.

7 (c) COUNTRIES DESCRIBED.—A country referred to
8 in subsection (b) is a country that—

9 (1) has not concluded and ratified an Addi-
10 tional Protocol to its safeguards agreement with the
11 International Atomic Energy Agency; or

12 (2) has not ratified or acceded to the amend-
13 ment to the Convention on the Physical Protection
14 of Nuclear Material, adopted at Vienna October 26,
15 1979, and opened for signature at New York March
16 3, 1980 (TIAS 11080), described in the information
17 circular of the International Atomic Energy Agency
18 numbered INFCIRC/274/Rev.1/Mod.1 and dated
19 May 9, 2016 (TIAS 16–508).

20 (d) ITEMS DESCRIBED.—An item referred to in sub-
21 section (b) includes—

22 (1) unirradiated nuclear fuel containing special
23 nuclear material (as defined in section 11 of the
24 Atomic Energy Act of 1954 (42 U.S.C. 2014)), ex-
25 cluding low-enriched uranium;

1 (2) a nuclear reactor that uses nuclear fuel de-
2 scribed in paragraph (1); and

3 (3) any plant or component listed in Appendix
4 I to part 110 of title 10, Code of Federal Regula-
5 tions (or successor regulations), that is involved in—

6 (A) the reprocessing of irradiated nuclear
7 reactor fuel elements;

8 (B) the separation of plutonium; or

9 (C) the separation of the uranium-233 iso-
10 tope.

11 (e) NOTIFICATION.—If the Commission makes a de-
12 termination under subsection (b) that the transfer of any
13 item described in subsection (d) to a country described in
14 subsection (c) will not be inimical to the common defense
15 and security of the United States, the Commission shall
16 notify the appropriate committees of Congress.

17 **SEC. 104. COORDINATED INTERNATIONAL ENGAGEMENT.**

18 (a) DEFINITIONS.—In this section:

19 (1) EMBARKING CIVIL NUCLEAR NATION.—

20 (A) IN GENERAL.—The term “embarking
21 civil nuclear nation” means a country that—

22 (i) does not have a civil nuclear pro-
23 gram;

24 (ii) is in the process of developing or
25 expanding a civil nuclear program, includ-

1 ing safeguards and a legal and regulatory
2 framework; or

3 (iii) is in the process of selecting, de-
4 veloping, constructing, or utilizing an ad-
5 vanced nuclear reactor or advanced civil
6 nuclear technologies.

7 (B) EXCLUSIONS.—The term “embarking
8 civil nuclear nation” does not include—

- 9 (i) the People’s Republic of China;
10 (ii) the Russian Federation;
11 (iii) the Republic of Belarus;
12 (iv) the Islamic Republic of Iran;
13 (v) the Democratic People’s Republic
14 of Korea;
15 (vi) the Republic of Cuba;
16 (vii) the Bolivarian Republic of Ven-
17 ezuela;
18 (viii) the Syrian Arab Republic;
19 (ix) Burma; or
20 (x) any other country—

21 (I) the property or interests in
22 property of the government of which
23 are blocked pursuant to the Inter-
24 national Emergency Economic Powers
25 Act (50 U.S.C. 1701 et seq.); or

1 (II) the government of which the
2 Secretary of State has determined has
3 repeatedly provided support for acts
4 of international terrorism for purposes
5 of—

6 (aa) section 620A(a) of the
7 Foreign Assistance Act of 1961
8 (22 U.S.C. 2371(a));

9 (bb) section 40(d) of the
10 Arms Export Control Act (22
11 U.S.C. 2780(d));

12 (cc) section 1754(c)(1)(A)(i)
13 of the Export Control Reform
14 Act of 2018 (50 U.S.C.
15 4813(c)(1)(A)(i)); or

16 (dd) any other relevant pro-
17 vision of law.

18 (2) SECRETARIES.—The term “Secretaries”
19 means the Secretary of Commerce and the Secretary
20 of Energy, acting—

21 (A) in consultation with each other; and

22 (B) in coordination with—

23 (i) the Secretary of State;

24 (ii) the Commission;

25 (iii) the Secretary of the Treasury;

1 (iv) the President of the Export-Im-
2 port Bank of the United States; and

3 (v) officials of other Federal agencies,
4 as the Secretary of Commerce determines
5 to be appropriate.

6 (3) U.S. NUCLEAR ENERGY COMPANY.—The
7 term “U.S. nuclear energy company” means a com-
8 pany that—

9 (A) is organized under the laws of, or oth-
10 erwise subject to the jurisdiction of, the United
11 States; and

12 (B) is involved in the nuclear energy indus-
13 try.

14 (b) INTERNATIONAL CIVIL NUCLEAR MODERNIZA-
15 TION INITIATIVE.—

16 (1) IN GENERAL.—The Secretaries shall estab-
17 lish and carry out, in accordance with applicable nu-
18 clear technology export laws (including regulations),
19 an international initiative to modernize civil nuclear
20 outreach to embarking civil nuclear nations.

21 (2) ACTIVITIES.—In carrying out the initiative
22 described in paragraph (1)—

23 (A) the Secretary of Commerce shall—

24 (i) expand outreach by the Executive
25 Branch to the private investment commu-

1 nity to create public-private financing rela-
2 tionships to assist in the export of civil nu-
3 clear technology to embarking civil nuclear
4 nations;

5 (ii) seek to coordinate, to the max-
6 imum extent practicable, the work carried
7 out by each of—

8 (I) the Commission;

9 (II) the Department of Energy;

10 (III) the Department of State;

11 (IV) the Nuclear Energy Agency;

12 (V) the International Atomic En-
13 ergy Agency; and

14 (VI) other agencies, as the Sec-
15 retary of Commerce determines to be
16 appropriate; and

17 (iii) improve the regulatory framework
18 to allow for the efficient and expeditious
19 exporting and importing of items under the
20 jurisdiction of the Secretary of Commerce;
21 and

22 (B) the Secretary of Energy shall—

23 (i) assist nongovernmental organiza-
24 tions and appropriate offices, administra-
25 tions, agencies, laboratories, and programs

1 of the Federal Government in providing
2 education and training to foreign govern-
3 ments in nuclear safety, security, and safe-
4 guards—

5 (I) through engagement with the
6 International Atomic Energy Agency;
7 or

8 (II) independently, if the applica-
9 ble nongovernmental organization, of-
10 fice, administration, agency, labora-
11 tory, or program determines that it
12 would be more advantageous under
13 the circumstances to provide the ap-
14 plicable education and training inde-
15 pendently;

16 (ii) assist the efforts of the Inter-
17 national Atomic Energy Agency to expand
18 the support provided by the International
19 Atomic Energy Agency to embarking civil
20 nuclear nations for nuclear safety, security,
21 and safeguards; and

22 (iii) assist U.S. nuclear energy compa-
23 nies to integrate security and safeguards
24 by design in international outreach carried

1 out by those U.S. nuclear energy compa-
2 nies.

3 (c) REPORT.—Not later than 2 years after the date
4 of enactment of this Act, the Secretary of Commerce, in
5 consultation with the Secretary of Energy, shall submit
6 to Congress a report describing the activities carried out
7 under this section.

8 **TITLE II—DEVELOPING AND DE-**
9 **PLOYING NEW NUCLEAR**
10 **TECHNOLOGIES**

11 **SEC. 201. FEES FOR ADVANCED NUCLEAR REACTOR APPLI-**
12 **CATION REVIEW.**

13 (a) DEFINITIONS.—Section 3 of the Nuclear Energy
14 Innovation and Modernization Act (42 U.S.C. 2215 note;
15 Public Law 115–439) is amended—

16 (1) by redesignating paragraphs (2) through
17 (15) as paragraphs (3), (6), (7), (8), (9), (10), (12),
18 (15), (16), (17), (18), (19), (20), and (21), respec-
19 tively;

20 (2) by inserting after paragraph (1) the fol-
21 lowing:

22 “(2) ADVANCED NUCLEAR REACTOR APPLI-
23 CANT.—The term ‘advanced nuclear reactor appli-
24 cant’ means an entity that has submitted to the
25 Commission an application to receive a license for an

1 advanced nuclear reactor under the Atomic Energy
2 Act of 1954 (42 U.S.C. 2011 et seq.).”;

3 (3) by inserting after paragraph (3) (as so re-
4 designated) the following:

5 “(4) ADVANCED NUCLEAR REACTOR PRE-APPLI-
6 CANT.—The term ‘advanced nuclear reactor pre-ap-
7 plicant’ means an entity that has submitted to the
8 Commission a licensing project plan for the purposes
9 of submitting a future application to receive a li-
10 cense for an advanced nuclear reactor under the
11 Atomic Energy Act of 1954 (42 U.S.C. 2011 et
12 seq.).

13 “(5) AGENCY SUPPORT.—The term ‘agency
14 support’ means the resources of the Commission
15 that are located in executive, administrative, and
16 other support offices of the Commission, as de-
17 scribed in the document of the Commission entitled
18 ‘FY 2022 Final Fee Rule Work Papers’ (or a suc-
19 cessor document).”;

20 (4) by inserting after paragraph (10) (as so re-
21 designated) the following:

22 “(11) HOURLY RATE FOR MISSION-DIRECT PRO-
23 GRAM SALARIES AND BENEFITS FOR THE NUCLEAR
24 REACTOR SAFETY PROGRAM.—The term ‘hourly rate
25 for mission-direct program salaries and benefits for

1 the Nuclear Reactor Safety Program’ means the
2 quotient obtained by dividing—

3 “(A) the full-time equivalent rate (within
4 the meaning of the document of the Commis-
5 sion entitled ‘FY 2022 Final Fee Rule Work
6 Papers’ (or a successor document)) for mission-
7 direct program salaries and benefits for the Nu-
8 clear Reactor Safety Program (as determined
9 by the Commission) for a fiscal year; by

10 “(B) the productive hours assumption for
11 that fiscal year, determined in accordance with
12 the formula established in the document re-
13 ferred to in subparagraph (A) (or a successor
14 document).”; and

15 (5) by inserting after paragraph (12) (as so re-
16 designated) the following:

17 “(13) MISSION-DIRECT PROGRAM SALARIES
18 AND BENEFITS FOR THE NUCLEAR REACTOR SAFETY
19 PROGRAM.—The term ‘mission-direct program sala-
20 ries and benefits for the Nuclear Reactor Safety
21 Program’ means the resources of the Commission
22 that are allocated to the Nuclear Reactor Safety
23 Program (as determined by the Commission) to per-
24 form core work activities committed to fulfilling the
25 mission of the Commission, as described in the docu-

1 ment of the Commission entitled ‘FY 2022 Final
2 Fee Rule Work Papers’ (or a successor document).

3 “(14) MISSION-INDIRECT PROGRAM SUPPORT.—
4 The term ‘mission-indirect program support’ means
5 the resources of the Commission that support the
6 core mission-direct activities for the Nuclear Reactor
7 Safety Program of the Commission (as determined
8 by the Commission), as described in the document of
9 the Commission entitled ‘FY 2022 Final Fee Rule
10 Work Papers’ (or a successor document).”.

11 (b) EXCLUDED ACTIVITIES.—Section 102(b)(1)(B)
12 of the Nuclear Energy Innovation and Modernization Act
13 (42 U.S.C. 2215(b)(1)(B)) (as amended by section
14 101(e)(1)(B)) is amended by adding at the end the fol-
15 lowing:

16 “(v) The total costs of mission-indi-
17 rect program support and agency support
18 that, under paragraph (2)(B), may not be
19 included in the hourly rate charged for fees
20 assessed to advanced nuclear reactor appli-
21 cants.

22 “(vi) The total costs of mission-indi-
23 rect program support and agency support
24 that, under paragraph (2)(C), may not be
25 included in the hourly rate charged for fees

1 assessed to advanced nuclear reactor pre-
2 applicants.”.

3 (c) FEES FOR SERVICE OR THING OF VALUE.—Sec-
4 tion 102(b) of the Nuclear Energy Innovation and Mod-
5 ernization Act (42 U.S.C. 2215(b)) is amended by striking
6 paragraph (2) and inserting the following:

7 “(2) FEES FOR SERVICE OR THING OF
8 VALUE.—

9 “(A) IN GENERAL.—In accordance with
10 section 9701 of title 31, United States Code,
11 the Commission shall assess and collect fees
12 from any person who receives a service or thing
13 of value from the Commission to cover the costs
14 to the Commission of providing the service or
15 thing of value.

16 “(B) ADVANCED NUCLEAR REACTOR AP-
17 PLICANTS.—The hourly rate charged for fees
18 assessed to advanced nuclear reactor applicants
19 under this paragraph relating to the review of
20 a submitted application described in section
21 3(1) shall not exceed the hourly rate for mis-
22 sion-direct program salaries and benefits for the
23 Nuclear Reactor Safety Program.

24 “(C) ADVANCED NUCLEAR REACTOR PRE-
25 APPLICANTS.—The hourly rate charged for fees

1 assessed to advanced nuclear reactor pre-appli-
2 cants under this paragraph relating to the re-
3 view of submitted materials as described in the
4 licensing project plan of an advanced nuclear
5 reactor pre-applicant shall not exceed the hour-
6 ly rate for mission-direct program salaries and
7 benefits for the Nuclear Reactor Safety Pro-
8 gram.”.

9 (d) SUNSET.—Section 102 of the Nuclear Energy In-
10 novation and Modernization Act (42 U.S.C. 2215) is
11 amended by adding at the end the following:

12 “(g) CESSATION OF EFFECTIVENESS.—Paragraphs
13 (1)(B)(vi) and (2)(C) of subsection (b) shall cease to be
14 effective on September 30, 2029.”.

15 (e) EFFECTIVE DATE.—The amendments made by
16 this section shall take effect on October 1, 2024.

17 **SEC. 202. ADVANCED NUCLEAR REACTOR PRIZES.**

18 Section 103 of the Nuclear Energy Innovation and
19 Modernization Act (Public Law 115–439; 132 Stat. 5571)
20 is amended by adding at the end the following:

21 “(f) PRIZES FOR ADVANCED NUCLEAR REACTOR LI-
22 CENSING.—

23 “(1) DEFINITION OF ELIGIBLE ENTITY.—In
24 this subsection, the term ‘eligible entity’ means—

25 “(A) a non-Federal entity; and

1 “(B) the Tennessee Valley Authority.

2 “(2) PRIZE FOR ADVANCED NUCLEAR REACTOR
3 LICENSING.—

4 “(A) IN GENERAL.—Notwithstanding sec-
5 tion 169 of the Atomic Energy Act of 1954 (42
6 U.S.C. 2209) and subject to the availability of
7 appropriations, the Secretary is authorized to
8 make, with respect to each award category de-
9 scribed in subparagraph (C), an award in an
10 amount described in subparagraph (B) to the
11 first eligible entity—

12 “(i) to which the Commission issues
13 an operating license for an advanced nu-
14 clear reactor under part 50 of title 10,
15 Code of Federal Regulations (or successor
16 regulations), for which an application has
17 not been approved by the Commission as
18 of the date of enactment of this subsection;
19 or

20 “(ii) for which the Commission makes
21 a finding described in section 52.103(g) of
22 title 10, Code of Federal Regulations (or
23 successor regulations), with respect to a
24 combined license for an advanced nuclear
25 reactor—

1 “(I) that is issued under subpart
2 C of part 52 of that title (or successor
3 regulations); and

4 “(II) for which an application
5 has not been approved by the Com-
6 mission as of the date of enactment of
7 this subsection.

8 “(B) AMOUNT OF AWARD.—An award
9 under subparagraph (A) shall be in an amount
10 equal to the total amount assessed by the Com-
11 mission and collected under section 102(b)(2)
12 from the eligible entity receiving the award for
13 costs relating to the issuance of the license de-
14 scribed in that subparagraph, including, as ap-
15 plicable, costs relating to the issuance of an as-
16 sociated construction permit described in sec-
17 tion 50.23 of title 10, Code of Federal Regula-
18 tions (or successor regulations), or early site
19 permit (as defined in section 52.1 of that title
20 (or successor regulations)).

21 “(C) AWARD CATEGORIES.—An award
22 under subparagraph (A) may be made for—

23 “(i) the first advanced nuclear reactor
24 for which the Commission—

1 “(I) issues a license in accord-
2 ance with clause (i) of subparagraph
3 (A); or

4 “(II) makes a finding in accord-
5 ance with clause (ii) of that subpara-
6 graph;

7 “(ii) an advanced nuclear reactor
8 that—

9 “(I) uses isotopes derived from
10 spent nuclear fuel (as defined in sec-
11 tion 2 of the Nuclear Waste Policy
12 Act of 1982 (42 U.S.C. 10101)) or
13 depleted uranium as fuel for the ad-
14 vanced nuclear reactor; and

15 “(II) is the first advanced nu-
16 clear reactor described in subclause
17 (I) for which the Commission—

18 “(aa) issues a license in ac-
19 cordance with clause (i) of sub-
20 paragraph (A); or

21 “(bb) makes a finding in ac-
22 cordance with clause (ii) of that
23 subparagraph;

24 “(iii) an advanced nuclear reactor
25 that—

1 “(I) is a nuclear integrated en-
2 ergy system—

3 “(aa) that is composed of 2
4 or more co-located or jointly op-
5 erated subsystems of energy gen-
6 eration, energy storage, or other
7 technologies;

8 “(bb) in which not fewer
9 than 1 subsystem described in
10 item (aa) is a nuclear energy sys-
11 tem; and

12 “(cc) the purpose of which
13 is—

14 “(AA) to reduce green-
15 house gas emissions in both
16 the power and nonpower sec-
17 tors; and

18 “(BB) to maximize en-
19 ergy production and effi-
20 ciency; and

21 “(II) is the first advanced nu-
22 clear reactor described in subclause
23 (I) for which the Commission—

1 “(aa) issues a license in ac-
2 cordance with clause (i) of sub-
3 paragraph (A); or

4 “(bb) makes a finding in ac-
5 cordance with clause (ii) of that
6 subparagraph;

7 “(iv) an advanced reactor that—

8 “(I) operates flexibly to generate
9 electricity or high temperature process
10 heat for nonelectric applications; and

11 “(II) is the first advanced nu-
12 clear reactor described in subclause
13 (I) for which the Commission—

14 “(aa) issues a license in ac-
15 cordance with clause (i) of sub-
16 paragraph (A); or

17 “(bb) makes a finding in ac-
18 cordance with clause (ii) of that
19 subparagraph; and

20 “(v) the first advanced nuclear reactor
21 for which the Commission grants approval
22 to load nuclear fuel pursuant to the tech-
23 nology-inclusive regulatory framework es-
24 tablished under subsection (a)(4).

25 “(3) FEDERAL FUNDING LIMITATIONS.—

1 “(A) EXCLUSION OF TVA FUNDS.—In this
2 paragraph, the term ‘Federal funds’ does not
3 include funds received under the power program
4 of the Tennessee Valley Authority.

5 “(B) LIMITATION ON AMOUNTS EX-
6 PENDED.—An award under this subsection
7 shall not exceed the total amount expended (ex-
8 cluding any expenditures made with Federal
9 funds received for the applicable project and an
10 amount equal to the minimum cost-share re-
11 quired under section 988 of the Energy Policy
12 Act of 2005 (42 U.S.C. 16352)) by the eligible
13 entity receiving the award for licensing costs re-
14 lating to the project for which the award is
15 made.

16 “(C) REPAYMENT AND DIVIDENDS NOT
17 REQUIRED.—Notwithstanding section
18 9104(a)(4) of title 31, United States Code, or
19 any other provision of law, an eligible entity
20 that receives an award under this subsection
21 shall not be required—

22 “(i) to repay that award or any part
23 of that award; or

1 “(ii) to pay a dividend, interest, or
2 other similar payment based on the sum of
3 that award.”.

4 **SEC. 203. REPORT ON UNIQUE LICENSING CONSIDER-**
5 **ATIONS RELATING TO THE USE OF NUCLEAR**
6 **ENERGY FOR NONELECTRIC APPLICATIONS.**

7 (a) IN GENERAL.—Not later than 270 days after the
8 date of enactment of this Act, the Commission shall sub-
9 mit to the appropriate committees of Congress a report
10 (referred to in this section as the “report”) addressing any
11 unique licensing issues or requirements relating to—

12 (1) the flexible operation of nuclear reactors,
13 such as ramping power output and switching be-
14 tween electricity generation and nonelectric applica-
15 tions;

16 (2) the use of advanced nuclear reactors exclu-
17 sively for nonelectric applications; and

18 (3) the colocation of nuclear reactors with in-
19 dustrial plants or other facilities.

20 (b) STAKEHOLDER INPUT.—In developing the report,
21 the Commission shall seek input from—

22 (1) the Secretary of Energy;

23 (2) the nuclear energy industry;

24 (3) technology developers;

1 (4) the industrial, chemical, and medical sec-
2 tors;

3 (5) nongovernmental organizations; and

4 (6) other public stakeholders.

5 (c) CONTENTS.—

6 (1) IN GENERAL.—The report shall describe—

7 (A) any unique licensing issues or require-
8 ments relating to the matters described in para-
9 graphs (1) through (3) of subsection (a), in-
10 cluding, with respect to the nonelectric applica-
11 tions referred to in paragraphs (1) and (2) of
12 that subsection, any licensing issues or require-
13 ments relating to the use of nuclear energy in—

14 (i) hydrogen or other liquid and gas-
15 eous fuel or chemical production;

16 (ii) water desalination and wastewater
17 treatment;

18 (iii) heat for industrial processes;

19 (iv) district heating;

20 (v) energy storage;

21 (vi) industrial or medical isotope pro-
22 duction; and

23 (vii) other applications, as identified
24 by the Commission;

1 (B) options for addressing those issues or
2 requirements—

3 (i) within the existing regulatory
4 framework of the Commission;

5 (ii) as part of the technology-inclusive
6 regulatory framework required under sub-
7 section (a)(4) of section 103 of the Nuclear
8 Energy Innovation and Modernization Act
9 (42 U.S.C. 2133 note; Public Law 115–
10 439) or described in the report required
11 under subsection (e) of that section (Public
12 Law 115–439; 132 Stat. 5575); or

13 (iii) through a new rulemaking; and

14 (C) the extent to which Commission action
15 is needed to implement any matter described in
16 the report.

17 (2) COST ESTIMATES, BUDGETS, AND TIME-
18 FRAMES.—The report shall include cost estimates,
19 proposed budgets, and proposed timeframes for im-
20 plementing risk-informed and performance-based
21 regulatory guidance in the licensing of nuclear reac-
22 tors for nonelectric applications.

1 **SEC. 204. ENABLING PREPARATIONS FOR THE DEMONSTRATION OF ADVANCED NUCLEAR REACTORS ON**
2 **DEPARTMENT OF ENERGY SITES OR CRITICAL NATIONAL SECURITY INFRASTRUCTURE**
3 **SITES.**

4
5
6 (a) IN GENERAL.—Section 102(b)(1)(B) of the Nuclear Energy Innovation and Modernization Act (42 U.S.C. 2215(b)(1)(B)) (as amended by section 201(b)) is
7 amended by adding at the end the following:

8
9
10 “(vi) Costs for—

11 “(I) activities to review and approve or disapprove an application for
12 an early site permit (as defined in section 52.1 of title 10, Code of Federal
13 Regulations (or a successor regulation)) to demonstrate an advanced nuclear reactor on a Department of Energy site or critical national security
14 infrastructure (as defined in section 327(d) of the John S. McCain National Defense Authorization Act for
15 Fiscal Year 2019 (Public Law 115–232; 132 Stat. 1722)) site; and
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24 “(II) pre-application activities relating to an early site permit (as defined in section 52.1 of title 10, Code
25
26

1 of Federal Regulations (or a successor
2 regulation)) to demonstrate an ad-
3 vanced nuclear reactor on a Depart-
4 ment of Energy site or critical na-
5 tional security infrastructure (as de-
6 fined in section 327(d) of the John S.
7 McCain National Defense Authoriza-
8 tion Act for Fiscal Year 2019 (Public
9 Law 115–232; 132 Stat. 1722))
10 site.”.

11 (b) EFFECTIVE DATE.—The amendment made by
12 subsection (a) shall take effect on October 1, 2024.

13 **SEC. 205. CLARIFICATION ON FUSION REGULATION.**

14 Section 103(a)(4) of the Nuclear Energy Innovation
15 and Modernization Act (42 U.S.C. 2133 note; Public Law
16 115–439) is amended—

17 (1) by striking “Not later” and inserting the
18 following:

19 “(A) IN GENERAL.—Not later”; and

20 (2) by adding at the end the following:

21 “(B) EXCLUSION OF FUSION REACTORS.—

22 For purposes of subparagraph (A), the term
23 ‘advanced reactor applicant’ does not include an
24 applicant seeking a license for a fusion reac-
25 tor.”.

1 **SEC. 206. REGULATORY ISSUES FOR NUCLEAR FACILITIES**
2 **AT BROWNFIELD SITES.**

3 (a) DEFINITIONS.—

4 (1) BROWNFIELD SITE.—The term “brownfield
5 site” has the meaning given the term in section 101
6 of the Comprehensive Environmental Response,
7 Compensation, and Liability Act of 1980 (42 U.S.C.
8 9601).

9 (2) PRODUCTION FACILITY.—The term “pro-
10 duction facility” has the meaning given the term in
11 section 11 of the Atomic Energy Act of 1954 (42
12 U.S.C. 2014).

13 (3) RETIRED FOSSIL FUEL SITE.—The term
14 “retired fossil fuel site” means the site of 1 or more
15 fossil fuel electric generation facilities that are re-
16 tired or scheduled to retire, including multi-unit fa-
17 cilities that are partially shut down.

18 (4) UTILIZATION FACILITY.—The term “utiliza-
19 tion facility” has the meaning given the term in sec-
20 tion 11 of the Atomic Energy Act of 1954 (42
21 U.S.C. 2014).

22 (b) IDENTIFICATION OF REGULATORY ISSUES.—

23 (1) IN GENERAL.—Not later than 1 year after
24 the date of enactment of this Act, the Commission
25 shall evaluate the extent to which modification of
26 regulations, guidance, or policy is needed to enable

1 timely licensing reviews for, and to support the over-
2 sight of, production facilities or utilization facilities
3 at brownfield sites.

4 (2) REQUIREMENT.—In carrying out paragraph
5 (1), the Commission shall consider how licensing re-
6 views for production facilities or utilization facilities
7 at brownfield sites may be expedited by considering
8 matters relating to siting and operating a production
9 facility or a utilization facility at or near a retired
10 fossil fuel site to support—

11 (A) the reuse of existing site infrastruc-
12 ture, including—

13 (i) electric switchyard components and
14 transmission infrastructure;

15 (ii) heat-sink components;

16 (iii) steam cycle components;

17 (iv) roads;

18 (v) railroad access; and

19 (vi) water availability;

20 (B) the use of early site permits;

21 (C) the utilization of plant parameter enve-
22 lopes or similar standardized site parameters on
23 a portion of a larger site; and

24 (D) the use of a standardized application
25 for similar sites.

1 (3) REPORT.—Not later than 14 months after
2 the date of enactment of this Act, the Commission
3 shall submit to the appropriate committees of Con-
4 gress a report describing any regulations, guidance,
5 and policies identified under paragraph (1).

6 (c) LICENSING.—

7 (1) IN GENERAL.—Not later than 2 years after
8 the date of enactment of this Act, the Commission
9 shall—

10 (A) develop and implement strategies to
11 enable timely licensing reviews for, and to sup-
12 port the oversight of, production facilities or
13 utilization facilities at brownfield sites, includ-
14 ing retired fossil fuel sites; or

15 (B) initiate a rulemaking to enable timely
16 licensing reviews for, and to support the over-
17 sight of, of production facilities or utilization
18 facilities at brownfield sites, including retired
19 fossil fuel sites.

20 (2) REQUIREMENTS.—In carrying out para-
21 graph (1), consistent with the mission of the Com-
22 mission, the Commission shall consider matters re-
23 lating to—

24 (A) the use of existing site infrastructure;

1 (B) existing emergency preparedness orga-
2 nizations and planning;

3 (C) the availability of historical site-spe-
4 cific environmental data;

5 (D) previously approved environmental re-
6 views required by the National Environmental
7 Policy Act of 1969 (42 U.S.C. 4321 et seq.);

8 (E) activities associated with the potential
9 decommissioning of facilities or decontamina-
10 tion and remediation at brownfield sites; and

11 (F) community engagement and historical
12 experience with energy production.

13 (d) REPORT.—Not later than 3 years after the date
14 of enactment of this Act, the Commission shall submit to
15 the appropriate committees of Congress a report describ-
16 ing the actions taken by the Commission under subsection
17 (c).

18 **SEC. 207. APPALACHIAN REGIONAL COMMISSION NUCLEAR**

19 **ENERGY DEVELOPMENT.**

20 (a) IN GENERAL.—Subchapter I of chapter 145 of
21 subtitle IV of title 40, United States Code, is amended
22 by adding at the end the following:

23 **“§ 14512. Appalachian Regional Commission nuclear**
24 **energy development**

25 “(a) DEFINITIONS.—In this section:

1 “(1) BROWNFIELD SITE.—The term ‘brownfield
2 site’ has the meaning given the term in section 101
3 of the Comprehensive Environmental Response,
4 Compensation, and Liability Act of 1980 (42 U.S.C.
5 9601).

6 “(2) PRODUCTION FACILITY.—The term ‘pro-
7 duction facility’ has the meaning given the term in
8 section 11 of the Atomic Energy Act of 1954 (42
9 U.S.C. 2014).

10 “(3) RETIRED FOSSIL FUEL SITE.—The term
11 ‘retired fossil fuel site’ means the site of 1 or more
12 fossil fuel electric generation facilities that are re-
13 tired or scheduled to retire, including multi-unit fa-
14 cilities that are partially shut down.

15 “(4) UTILIZATION FACILITY.—The term ‘utili-
16 zation facility’ has the meaning given the term in
17 section 11 of the Atomic Energy Act of 1954 (42
18 U.S.C. 2014).

19 “(b) AUTHORITY.—The Appalachian Regional Com-
20 mission may provide technical assistance to, make grants
21 to, enter into contracts with, or otherwise provide amounts
22 to individuals or entities in the Appalachian region for
23 projects and activities—

24 “(1) to conduct research and analysis regarding
25 the economic impact of siting, constructing, and op-

1 erating a production facility or a utilization facility
2 at a brownfield site, including a retired fossil fuel
3 site;

4 “(2) to assist with workforce training or re-
5 training to perform activities relating to the siting
6 and operation of a production facility or a utilization
7 facility at a brownfield site, including a retired fossil
8 fuel site; and

9 “(3) to engage with the Nuclear Regulatory
10 Commission, the Department of Energy, and other
11 Federal agencies with expertise in civil nuclear en-
12 ergy.

13 “(c) LIMITATION ON AVAILABLE AMOUNTS.—Of the
14 cost of any project or activity eligible for a grant under
15 this section—

16 “(1) except as provided in paragraphs (2) and
17 (3), not more than 50 percent may be provided from
18 amounts made available to carry out this section;

19 “(2) in the case of a project or activity to be
20 carried out in a county for which a distressed county
21 designation is in effect under section 14526, not
22 more than 80 percent may be provided from
23 amounts made available to carry out this section;
24 and

1 “(3) in the case of a project or activity to be
2 carried out in a county for which an at-risk county
3 designation is in effect under section 14526, not
4 more than 70 percent may be provided from
5 amounts made available to carry out this section.

6 “(d) SOURCES OF ASSISTANCE.—Subject to sub-
7 section (c), a grant provided under this section may be
8 provided from amounts made available to carry out this
9 section, in combination with amounts made available—

10 “(1) under any other Federal program; or

11 “(2) from any other source.

12 “(e) FEDERAL SHARE.—Notwithstanding any provi-
13 sion of law limiting the Federal share under any other
14 Federal program, amounts made available to carry out
15 this section may be used to increase that Federal share,
16 as the Appalachian Regional Commission determines to be
17 appropriate.”.

18 (b) AUTHORIZATION OF APPROPRIATIONS.—Section
19 14703 of title 40, United States Code, is amended—

20 (1) by redesignating subsections (e) and (f) as
21 subsections (f) and (g), respectively; and

22 (2) by inserting after subsection (d) the fol-
23 lowing:

24 “(e) APPALACHIAN REGIONAL COMMISSION NU-
25 CLEAR ENERGY DEVELOPMENT.—Of the amounts made

1 available under subsection (a), \$5,000,000 may be used
2 to carry out section 14512 for each of fiscal years 2023
3 through 2026.”.

4 (c) CLERICAL AMENDMENT.—The analysis for sub-
5 chapter I of chapter 145 of subtitle IV of title 40, United
6 States Code, is amended by striking the item relating to
7 section 14511 and inserting the following:

“14511. Appalachian regional energy hub initiative.

“14512. Appalachian Regional Commission nuclear energy development.”.

8 **TITLE III—PRESERVING EXIST-**
9 **ING NUCLEAR ENERGY GEN-**
10 **ERATION**

11 **SEC. 301. INVESTMENT BY ALLIES.**

12 (a) IN GENERAL.—The prohibitions against issuing
13 certain licenses for utilization facilities to certain corpora-
14 tions and other entities described in the second sentence
15 of section 103 d. of the Atomic Energy Act of 1954 (42
16 U.S.C. 2133(d)) and the second sentence of section 104
17 d. of that Act (42 U.S.C. 2134(d)) shall not apply to an
18 entity described in subsection (b) if the Commission deter-
19 mines that issuance of the applicable license to that entity
20 is not inimical to—

21 (1) the common defense and security; or

22 (2) the health and safety of the public.

23 (b) ENTITIES DESCRIBED.—

1 (1) IN GENERAL.—An entity referred to in sub-
2 section (a) is a corporation or other entity that is
3 owned, controlled, or dominated by—

4 (A) the government of—

5 (i) a country that is a member of the
6 Organisation for Economic Co-operation
7 and Development on the date of enactment
8 of this Act, subject to paragraph (2); or

9 (ii) the Republic of India;

10 (B) a corporation that is incorporated in a
11 country described in clause (i) or (ii) of sub-
12 paragraph (A); or

13 (C) an alien who is a national of a country
14 described in clause (i) or (ii) of subparagraph
15 (A).

16 (2) EXCLUSION.—An entity described in para-
17 graph (1)(A)(i) is not an entity referred to in sub-
18 section (a), and subsection (a) shall not apply to
19 that entity, if—

20 (A) the entity (or any department, agency,
21 or instrumentality of the entity) is a person
22 subject to sanctions under section 231 of the
23 Countering America’s Adversaries Through
24 Sanctions Act (22 U.S.C. 9525); or

1 (B) any citizen of the entity, or any entity
2 organized under the laws of, or otherwise sub-
3 ject to the jurisdiction of, the entity, is a person
4 subject to sanctions under that section.

5 (c) TECHNICAL AMENDMENT.—Section 103 d. of the
6 Atomic Energy Act of 1954 (42 U.S.C. 2133(d)) is
7 amended, in the second sentence, by striking “any any”
8 and inserting “any”.

9 (d) SAVINGS CLAUSE.—Nothing in this section af-
10 fects the requirements of section 721 of the Defense Pro-
11 duction Act of 1950 (50 U.S.C. 4565).

12 **SEC. 302. EXTENSION OF THE PRICE-ANDERSON ACT.**

13 (a) EXTENSION.—Section 170 of the Atomic Energy
14 Act of 1954 (42 U.S.C. 2210) (commonly known as the
15 “Price-Anderson Act”) is amended by striking “December
16 31, 2025” each place it appears and inserting “December
17 31, 2045”.

18 (b) REPORT.—Section 170 p. of the Atomic Energy
19 Act of 1954 (42 U.S.C. 2210(p)) (commonly known as the
20 “Price-Anderson Act”) is amended by striking “December
21 31, 2021” and inserting “December 31, 2041”.

1 **TITLE IV—NUCLEAR FUEL**
2 **CYCLE, SUPPLY CHAIN, IN-**
3 **FRASTRUCTURE, AND WORK-**
4 **FORCE**

5 **SEC. 401. REPORT ON ADVANCED METHODS OF MANUFAC-**
6 **TURING AND CONSTRUCTION FOR NUCLEAR**
7 **ENERGY APPLICATIONS.**

8 (a) IN GENERAL.—Not later than 180 days after the
9 date of enactment of this Act, the Commission shall sub-
10 mit to the appropriate committees of Congress a report
11 (referred to in this section as the “report”) on manufac-
12 turing and construction for nuclear energy applications.

13 (b) STAKEHOLDER INPUT.—In developing the report,
14 the Commission shall seek input from—

- 15 (1) the Secretary of Energy;
- 16 (2) the nuclear energy industry;
- 17 (3) National Laboratories;
- 18 (4) institutions of higher education;
- 19 (5) nuclear and manufacturing technology de-
20 velopers;
- 21 (6) the manufacturing and construction indus-
22 tries, including manufacturing and construction
23 companies with operating facilities in the United
24 States;
- 25 (7) standards development organizations;

- 1 (8) labor unions;
- 2 (9) nongovernmental organizations; and
- 3 (10) other public stakeholders.

4 (c) CONTENTS.—

5 (1) IN GENERAL.—The report shall—

6 (A) examine any unique licensing issues or
7 requirements relating to the use of innovative—

8 (i) advanced manufacturing processes;

9 (ii) advanced construction techniques;

10 and

11 (iii) rapid improvement or iterative in-
12 novation processes;

13 (B) examine—

14 (i) the requirements for nuclear-grade
15 components in manufacturing and con-
16 struction for nuclear energy applications;

17 (ii) opportunities to use standard ma-
18 terials, parts, or components in manufac-
19 turing and construction for nuclear energy
20 applications;

21 (iii) opportunities to use standard ma-
22 terials that are in compliance with existing
23 codes to provide acceptable approaches to
24 support or encapsulate new materials that
25 do not yet have applicable codes; and

1 (iv) requirements relating to the
2 transport of a fueled advanced nuclear re-
3 actor core from a manufacturing licensee
4 to a licensee that holds a license to con-
5 struct and operate a facility at a particular
6 site;

7 (C) identify any safety aspects of innova-
8 tive advanced manufacturing processes and ad-
9 vanced construction techniques that are not ad-
10 dressed by existing codes and standards, so that
11 generic guidance may be updated or created, as
12 necessary;

13 (D) identify options for addressing the
14 issues, requirements, and opportunities exam-
15 ined under subparagraphs (A) and (B)—

16 (i) within the existing regulatory
17 framework; or

18 (ii) through a new rulemaking;

19 (E) identify how addressing the issues, re-
20 quirements, and opportunities examined under
21 subparagraphs (A) and (B) will impact oppor-
22 tunities for domestic nuclear manufacturing
23 and construction developers; and

1 (F) describe the extent to which Commis-
2 sion action is needed to implement any matter
3 described in the report.

4 (2) COST ESTIMATES, BUDGETS, AND TIME-
5 FRAMES.—The report shall include cost estimates,
6 proposed budgets, and proposed timeframes for im-
7 plementing risk-informed and performance-based
8 regulatory guidance for manufacturing and construc-
9 tion for nuclear energy applications.

10 **SEC. 402. NUCLEAR ENERGY TRAINEESHIP.**

11 Section 313 of division C of the Omnibus Appropria-
12 tions Act, 2009 (42 U.S.C. 16274a), is amended—

13 (1) in subsection (a), by striking “Nuclear Reg-
14 ulatory”;

15 (2) in subsection (b)(1), in the matter pre-
16 ceding subparagraph (A), by inserting “and sub-
17 section (c)” after “paragraph (2)”;

18 (3) in subsection (c)—

19 (A) by redesignating paragraph (2) as
20 paragraph (5); and

21 (B) by striking paragraph (1) and insert-
22 ing the following:

23 “(1) ADVANCED NUCLEAR REACTOR.—The
24 term ‘advanced nuclear reactor’ has the meaning

1 given the term in section 951(b) of the Energy Pol-
2 icy Act of 2005 (42 U.S.C. 16271(b)).

3 “(2) COMMISSION.—The term ‘Commission’
4 means the Nuclear Regulatory Commission.

5 “(3) INSTITUTION OF HIGHER EDUCATION.—
6 The term ‘institution of higher education’ has the
7 meaning given the term in section 2 of the Energy
8 Policy Act of 2005 (42 U.S.C. 15801).

9 “(4) NATIONAL LABORATORY.—The term ‘Na-
10 tional Laboratory’ has the meaning given the term
11 in section 951(b) of the Energy Policy Act of 2005
12 (42 U.S.C. 16271(b)).”;

13 (4) in subsection (d)(2), by striking “Nuclear
14 Regulatory”;

15 (5) by redesignating subsections (c) and (d) as
16 subsections (d) and (e), respectively; and

17 (6) by inserting after subsection (b) the fol-
18 lowing:

19 “(c) NUCLEAR ENERGY TRAINEESHIP SUBPRO-
20 GRAM.—

21 “(1) IN GENERAL.—The Commission shall es-
22 tablish, as a subprogram of the Program, a nuclear
23 energy traineeship subprogram under which the
24 Commission, in coordination with institutions of
25 higher education and trade schools, shall competi-

1 tively award traineeships that provide focused train-
2 ing to meet critical mission needs of the Commission
3 and nuclear workforce needs, including needs relat-
4 ing to the nuclear tradecraft workforce.

5 “(2) REQUIREMENTS.—In carrying out the nu-
6 clear energy traineeship subprogram described in
7 paragraph (1), the Commission shall—

8 “(A) coordinate with the Secretary of En-
9 ergy to prioritize the funding of traineeships
10 that focus on—

11 “(i) nuclear workforce needs; and

12 “(ii) critical mission needs of the
13 Commission;

14 “(B) encourage appropriate partnerships
15 among—

16 “(i) National Laboratories;

17 “(ii) institutions of higher education;

18 “(iii) trade schools;

19 “(iv) the nuclear energy industry; and

20 “(v) other entities, as the Commission
21 determines to be appropriate; and

22 “(C) on an annual basis, evaluate nuclear
23 workforce needs for the purpose of imple-
24 menting traineeships in focused topical areas
25 that—

1 “(i) address the workforce needs of
2 the nuclear energy community; and

3 “(ii) support critical mission needs of
4 the Commission.”.

5 **SEC. 403. REPORT ON COMMISSION READINESS AND CA-**
6 **PACITY TO LICENSE ADDITIONAL CONVER-**
7 **SION AND ENRICHMENT CAPACITY TO RE-**
8 **DUCE RELIANCE ON URANIUM FROM RUSSIA.**

9 (a) IN GENERAL.—Not later than 180 days after the
10 date of enactment of this Act, the Commission shall sub-
11 mit to the appropriate committees of Congress a report
12 on the readiness and capacity of the Commission to license
13 additional conversion and enrichment capacity at existing
14 and new fuel cycle facilities to reduce reliance on nuclear
15 fuel that is recovered, converted, enriched, or fabricated
16 by an entity that—

17 (1) is owned or controlled by the Government of
18 the Russian Federation; or

19 (2) is organized under the laws of, or otherwise
20 subject to the jurisdiction of, the Russian Federa-
21 tion.

22 (b) CONTENTS.—The report required under sub-
23 section (a) shall analyze how the capacity of the Commis-
24 sion to license additional conversion and enrichment ca-
25 pacity at existing and new fuel cycle facilities may conflict

1 with or restrict the readiness of the Commission to review
2 advanced nuclear reactor applications.

3 **SEC. 404. ANNUAL REPORT ON THE SPENT NUCLEAR FUEL**
4 **AND HIGH-LEVEL RADIOACTIVE WASTE IN-**
5 **VENTORY IN THE UNITED STATES.**

6 (a) DEFINITIONS.—In this section:

7 (1) HIGH-LEVEL RADIOACTIVE WASTE.—The
8 term “high-level radioactive waste” has the meaning
9 given the term in section 2 of the Nuclear Waste
10 Policy Act of 1982 (42 U.S.C. 10101).

11 (2) SPENT NUCLEAR FUEL.—The term “spent
12 nuclear fuel” has the meaning given the term in sec-
13 tion 2 of the Nuclear Waste Policy Act of 1982 (42
14 U.S.C. 10101).

15 (3) STANDARD CONTRACT.—The term “stand-
16 ard contract” has the meaning given the term “con-
17 tract” in section 961.3 of title 10, Code of Federal
18 Regulations (or a successor regulation).

19 (b) REPORT.—Not later than January 1, 2025, and
20 annually thereafter, the Secretary of Energy shall submit
21 to Congress a report that describes—

22 (1) the annual and cumulative amount of pay-
23 ments made by the United States to the holder of
24 a standard contract due to a partial breach of con-
25 tract under the Nuclear Waste Policy Act of 1982

1 (42 U.S.C. 10101 et seq.) resulting in financial
2 damages to the holder;

3 (2) the cumulative amount spent by the Depart-
4 ment of Energy since fiscal year 2008 to reduce fu-
5 ture payments projected to be made by the United
6 States to any holder of a standard contract due to
7 a partial breach of contract under the Nuclear
8 Waste Policy Act of 1982 (42 U.S.C. 10101 et seq.);

9 (3) the cumulative amount spent by the Depart-
10 ment of Energy to store, manage, and dispose of
11 spent nuclear fuel and high-level radioactive waste in
12 the United States as of the date of the report;

13 (4) the projected lifecycle costs to store, man-
14 age, transport, and dispose of the projected inven-
15 tory of spent nuclear fuel and high-level radioactive
16 waste in the United States, including spent nuclear
17 fuel and high-level radioactive waste expected to be
18 generated from existing reactors through 2050;

19 (5) any mechanisms for better accounting of li-
20 abilities for the lifecycle costs of the spent nuclear
21 fuel and high-level radioactive waste inventory in the
22 United States;

23 (6) any recommendations for improving the
24 methods used by the Department of Energy for the

1 accounting of spent nuclear fuel and high-level ra-
2 dioactive waste costs and liabilities;

3 (7) any actions taken in the previous fiscal year
4 by the Department of Energy with respect to in-
5 terim storage; and

6 (8) any activities taken in the previous fiscal
7 year by the Department of Energy to develop and
8 deploy nuclear technologies and fuels that enhance
9 the safe transportation or storage of spent nuclear
10 fuel or high-level radioactive waste, including tech-
11 nologies to protect against seismic, flooding, and
12 other extreme weather events.

13 **SEC. 405. AUTHORIZATION OF APPROPRIATIONS FOR**
14 **SUPERFUND ACTIONS AT ABANDONED MIN-**
15 **ING SITES ON TRIBAL LAND.**

16 (a) DEFINITIONS.—In this section:

17 (1) ELIGIBLE NON-NPL SITE.—The term “eli-
18 gible non-NPL site” means a site—

19 (A) that is not on the National Priorities
20 List; but

21 (B) with respect to which the Adminis-
22 trator determines that—

23 (i) the site would be eligible for listing
24 on the National Priorities List based on
25 the presence of hazards from contamina-

1 tion at the site, applying the hazard rank-
2 ing system described in section 105(c) of
3 the Comprehensive Environmental Re-
4 sponse, Compensation, and Liability Act of
5 1980 (42 U.S.C. 9605(c)); and

6 (ii) for removal site evaluations, engi-
7 neering evaluations/cost analyses, remedial
8 planning activities, remedial investigations
9 and feasibility studies, and other actions
10 taken pursuant to section 104(b) of that
11 Act (42 U.S.C. 9604), the site—

12 (I) has undergone a pre-
13 CERCLA screening; and

14 (II) is included in the Superfund
15 Enterprise Management System.

16 (2) INDIAN TRIBE.—The term “Indian Tribe”
17 has the meaning given the term in section 4 of the
18 Indian Self-Determination and Education Assistance
19 Act (25 U.S.C. 5304).

20 (3) NATIONAL PRIORITIES LIST.—The term
21 “National Priorities List” means the National Prior-
22 ities List developed by the President in accordance
23 with section 105(a)(8)(B) of the Comprehensive En-
24 vironmental Response, Compensation, and Liability
25 Act of 1980 (42 U.S.C. 9605(a)(8)(B)).

1 (4) REMEDIAL ACTION; REMOVAL; RESPONSE.—
2 The terms “remedial action”, “removal”, and “re-
3 sponse” have the meanings given those terms in sec-
4 tion 101 of the Comprehensive Environmental Re-
5 sponse, Compensation, and Liability Act of 1980 (42
6 U.S.C. 9601).

7 (5) TRIBAL LAND.—The term “Tribal land”
8 has the meaning given the term “Indian country” in
9 section 1151 of title 18, United States Code.

10 (b) AUTHORIZATION OF APPROPRIATIONS.—There
11 are authorized to be appropriated for each of fiscal years
12 2023 through 2032, to remain available until expended—

13 (1) \$97,000,000 to the Administrator to carry
14 out this section (except for subsection (d)); and

15 (2) \$3,000,000 to the Administrator of the
16 Agency for Toxic Substances and Disease Registry
17 to carry out subsection (d).

18 (c) USES OF AMOUNTS.—Amounts appropriated
19 under subsection (b)(1) shall be used by the Adminis-
20 trator—

21 (1) to carry out removal actions on abandoned
22 mine land located on Tribal land;

23 (2) to carry out response actions, including re-
24 moval and remedial planning activities, removal and
25 remedial studies, remedial actions, and other actions

1 taken pursuant to section 104(b) of the Comprehen-
2 sive Environmental Response, Compensation, and
3 Liability Act of 1980 (42 U.S.C. 9604(b)) on aban-
4 doned mine land located on Tribal land at—

5 (A) eligible non-NPL sites; and

6 (B) sites listed on the National Priorities
7 List; and

8 (3) to make grants under subsection (e).

9 (d) HEALTH ASSESSMENTS.—Subject to the avail-
10 ability of appropriations, the Agency for Toxic Substances
11 and Disease Registry, in coordination with Tribal health
12 authorities, shall perform 1 or more health assessments
13 at each eligible non-NPL site that is located on Tribal
14 land, in accordance with section 104(i)(6) of the Com-
15 prehensive Environmental Response, Compensation, and
16 Liability Act of 1980 (42 U.S.C. 9604(i)(6)).

17 (e) TRIBAL GRANTS.—

18 (1) IN GENERAL.—The Administrator may use
19 amounts appropriated under subsection (b)(1) to
20 make grants to eligible entities described in para-
21 graph (2) for the purposes described in paragraph
22 (3).

23 (2) ELIGIBLE ENTITIES DESCRIBED.—An eligi-
24 ble entity referred to in paragraph (1) is—

1 (A) the governing body of an Indian Tribe;

2 or

3 (B) a legally established organization of

4 Indians that—

5 (i) is controlled, sanctioned, or char-

6 tered by the governing bodies of 2 or more

7 Indian Tribes to be served, or that is

8 democratically elected by the adult mem-

9 bers of the Indian community to be served,

10 by that organization; and

11 (ii) includes the maximum participa-

12 tion of Indians in all phases of the activi-

13 ties of that organization.

14 (3) USE OF GRANT FUNDS.—A grant under this

15 subsection shall be used—

16 (A) in accordance with the second sentence

17 of section 117(e)(1) of the Comprehensive Envi-

18 ronmental Response, Compensation, and Liabil-

19 ity Act of 1980 (42 U.S.C. 9617(e)(1));

20 (B) for obtaining technical assistance in

21 carrying out response actions under subpara-

22 graph (C); or

23 (C) for carrying out response actions, if

24 the Administrator determines that the Indian

25 Tribe has the capability to carry out any or all

1 of those response actions in accordance with the
2 criteria and priorities established pursuant to
3 section 105(a)(8) of the Comprehensive Envi-
4 ronmental Response, Compensation, and Liabil-
5 ity Act of 1980 (42 U.S.C. 9605(a)(8)).

6 (4) APPLICATIONS.—An eligible entity desiring
7 a grant under this subsection shall submit to the
8 Administrator an application at such time, in such
9 manner, and containing such information as the Ad-
10 ministrator may require.

11 (5) LIMITATIONS.—A grant under this sub-
12 section shall be governed by the rules, procedures,
13 and limitations described in section 117(e)(2) of the
14 Comprehensive Environmental Response, Compensa-
15 tion, and Liability Act of 1980 (42 U.S.C.
16 9617(e)(2)), except that—

17 (A) “Administrator of the Environmental
18 Protection Agency” shall be substituted for
19 “President” each place it appears in that sec-
20 tion; and

21 (B) in the first sentence of that section,
22 “under section 405 of the ADVANCE Act of
23 2023” shall be substituted for “under this sub-
24 section”.

1 (f) STATUTE OF LIMITATIONS.—If a remedial action
2 described in subsection (c)(2) is scheduled at an eligible
3 non-NPL site, no action may be commenced for damages
4 (as defined in section 101 of the Comprehensive Environ-
5 mental Response, Compensation, and Liability Act of
6 1980 (42 U.S.C. 9601)) with respect to that eligible non-
7 NPL site unless the action is commenced within the time-
8 frame provided for such actions with respect to facilities
9 on the National Priorities List in the first sentence of the
10 matter following subparagraph (B) of section 113(g)(1)
11 of that Act (42 U.S.C. 9613(g)(1)).

12 (g) COORDINATION.—The Administrator shall coordi-
13 nate with the Indian Tribe on whose land the applicable
14 site is located in—

15 (1) selecting and prioritizing sites for response
16 actions under paragraphs (1) and (2) of subsection
17 (c); and

18 (2) carrying out those response actions.

19 **SEC. 406. DEVELOPMENT, QUALIFICATION, AND LICENSING**
20 **OF ADVANCED NUCLEAR FUEL CONCEPTS.**

21 (a) IN GENERAL.—The Commission shall establish
22 an initiative to enhance preparedness and coordination
23 with respect to the qualification and licensing of advanced
24 nuclear fuel.

1 (b) AGENCY COORDINATION.—Not later than 180
2 days after the date of enactment of this Act, the Commis-
3 sion and the Secretary of Energy shall enter into a memo-
4 randum of understanding—

5 (1) to share technical expertise and knowledge
6 through—

7 (A) enabling the testing and demonstration
8 of accident tolerant fuels for existing commer-
9 cial nuclear reactors and advanced nuclear reac-
10 tor fuel concepts to be proposed and funded, in
11 whole or in part, by the private sector;

12 (B) operating a database to store and
13 share data and knowledge relevant to nuclear
14 science and engineering between Federal agen-
15 cies and the private sector;

16 (C) leveraging expertise with respect to
17 safety analysis and research relating to ad-
18 vanced nuclear fuel; and

19 (D) enabling technical staff to actively ob-
20 serve and learn about technologies, with an em-
21 phasis on identification of additional informa-
22 tion needed with respect to advanced nuclear
23 fuel; and

24 (2) to ensure that—

1 (A) the Department of Energy has suffi-
2 cient technical expertise to support the timely
3 research, development, demonstration, and com-
4 mercial application of advanced nuclear fuel;

5 (B) the Commission has sufficient tech-
6 nical expertise to support the evaluation of ap-
7 plications for licenses, permits, and design cer-
8 tifications and other requests for regulatory ap-
9 proval for advanced nuclear fuel;

10 (C)(i) the Department of Energy main-
11 tains and develops the facilities necessary to en-
12 able the timely research, development, dem-
13 onstration, and commercial application by the
14 civilian nuclear industry of advanced nuclear
15 fuel; and

16 (ii) the Commission has access to the fa-
17 cilities described in clause (i), as needed; and

18 (D) the Commission consults, as appro-
19 priate, with the modeling and simulation ex-
20 perts at the Office of Nuclear Energy of the
21 Department of Energy, at the National Labora-
22 tories, and within industry fuel vendor teams in
23 cooperative agreements with the Department of
24 Energy to leverage physics-based computer
25 modeling and simulation capabilities.

1 (c) REPORT.—

2 (1) IN GENERAL.—Not later than 1 year after
3 the date of enactment of this Act, the Commission
4 shall submit to the appropriate committees of Con-
5 gress a report describing the efforts of the Commis-
6 sion under subsection (a), including—

7 (A) an assessment of the preparedness of
8 the Commission to review and qualify for use—

- 9 (i) accident tolerant fuel;
10 (ii) ceramic cladding materials;
11 (iii) fuels containing silicon carbide;
12 (iv) high-assay, low-enriched uranium
13 fuels;
14 (v) molten-salt based liquid fuels;
15 (vi) fuels derived from spent nuclear
16 fuel or depleted uranium; and
17 (vii) other related fuel concepts, as de-
18 termined by the Commission;

19 (B) activities planned or undertaken under
20 the memorandum of understanding described in
21 subsection (b);

22 (C) an accounting of the areas of research
23 needed with respect to advanced nuclear fuel;
24 and

1 (D) any other challenges or considerations
2 identified by the Commission.

3 (2) CONSULTATION.—In developing the report
4 under paragraph (1), the Commission shall seek
5 input from—

6 (A) the Secretary of Energy;

7 (B) National Laboratories;

8 (C) the nuclear energy industry;

9 (D) technology developers;

10 (E) nongovernmental organizations; and

11 (F) other public stakeholders.

12 **TITLE V—IMPROVING**
13 **COMMISSION EFFICIENCY**

14 **SEC. 501. COMMISSION WORKFORCE.**

15 (a) DEFINITION OF CHAIRMAN.—In this section, the
16 term “Chairman” means the Chairman of the Commis-
17 sion.

18 (b) HIRING BONUS AND APPOINTMENT AUTHOR-
19 ITY.—

20 (1) IN GENERAL.—Notwithstanding section 161
21 d. of the Atomic Energy Act of 1954 (42 U.S.C.
22 2201(d)), any provision of Reorganization Plan No.
23 1 of 1980 (94 Stat. 3585; 5 U.S.C. app.), and any
24 provision of title 5, United States Code, governing
25 appointments and General Schedule classification

1 and pay rates, the Chairman may, subject to the
2 limitations described in paragraph (3), and without
3 regard to the civil service laws—

4 (A) establish the positions described in
5 paragraph (2); and

6 (B) appoint persons to the positions estab-
7 lished under subparagraph (A).

8 (2) POSITIONS DESCRIBED.—The positions re-
9 ferred to in paragraph (1)(A) are—

10 (A) permanent or term-limited positions
11 with highly specialized scientific, engineering,
12 and technical competencies to address a critical
13 licensing or regulatory oversight need for the
14 Commission, including—

15 (i) health physicist;

16 (ii) reactor operations engineer;

17 (iii) human factors analyst or engi-
18 neer;

19 (iv) risk and reliability analyst or en-
20 gineer;

21 (v) licensing project manager;

22 (vi) reactor engineer for severe acci-
23 dents;

24 (vii) geotechnical engineer;

25 (viii) structural engineer;

1 (ix) reactor systems engineer;

2 (x) reactor engineer;

3 (xi) radiation scientist; and

4 (xii) electronics engineer; or

5 (B) permanent or term-limited positions to
6 be filled by exceptionally well-qualified individ-
7 uals that the Chairman, subject to subsection
8 (e), determines are necessary to fulfill the mis-
9 sion of the Commission.

10 (3) LIMITATIONS.—

11 (A) IN GENERAL.—Appointments under
12 paragraph (1)(B) may be made to not more
13 than—

14 (i)(I) 15 permanent positions de-
15 scribed in paragraph (2)(A) during fiscal
16 year 2024; and

17 (II) 10 permanent positions described
18 in paragraph (2)(A) during each fiscal
19 year thereafter;

20 (ii)(I) 15 term-limited positions de-
21 scribed in paragraph (2)(A) during fiscal
22 year 2024; and

23 (II) 10 term-limited positions de-
24 scribed in paragraph (2)(A) during each
25 fiscal year thereafter;

1 (iii)(I) 15 permanent positions de-
2 scribed in paragraph (2)(B) during fiscal
3 year 2024; and

4 (II) 10 permanent positions described
5 in paragraph (2)(B) during each fiscal
6 year thereafter; and

7 (iv)(I) 15 term-limited positions de-
8 scribed in paragraph (2)(B) during fiscal
9 year 2024; and

10 (II) 10 term-limited positions de-
11 scribed in paragraph (2)(B) during each
12 fiscal year thereafter.

13 (B) TERM OF TERM-LIMITED APPOINT-
14 MENT.—If a person is appointed to a term-lim-
15 ited position described in subparagraph (A) or
16 (B) of paragraph (2), the term of that appoint-
17 ment shall not exceed 4 years.

18 (C) STAFF POSITIONS.—Subject to sub-
19 section (e), appointments made to positions es-
20 tablished under this subsection shall be to a
21 range of staff positions that are of entry, mid,
22 and senior levels, to the extent practicable.

23 (4) HIRING BONUS.—The Commission may pay
24 a person appointed under paragraph (1) a 1-time

1 hiring bonus in an amount not to exceed the least
2 of—

3 (A) \$25,000;

4 (B) the amount equal to 15 percent of the
5 annual rate of basic pay of the employee; and

6 (C) the amount of the limitation that is
7 applicable for a calendar year under section
8 5307(a)(1) of title 5, United States Code.

9 (c) COMPENSATION AND APPOINTMENT AUTHOR-
10 ITY.—

11 (1) IN GENERAL.—Notwithstanding section 161
12 d. of the Atomic Energy Act of 1954 (42 U.S.C.
13 2201(d)), any provision of Reorganization Plan No.
14 1 of 1980 (94 Stat. 3585; 5 U.S.C. app.), and chap-
15 ter 51, and subchapter III of chapter 53, of title 5,
16 United States Code, the Chairman, subject to the
17 limitations described in paragraph (3) and without
18 regard to the civil service laws, may—

19 (A) establish and fix the rates of basic pay
20 for the positions described in paragraph (2);
21 and

22 (B) appoint persons to the positions estab-
23 lished under subparagraph (A).

24 (2) POSITIONS DESCRIBED.—The positions re-
25 ferred to in paragraph (1)(A) are—

1 (A) positions with highly specialized sci-
2 entific, engineering, and technical competencies
3 to address a critical need for the Commission,
4 including—

- 5 (i) health physicist;
6 (ii) reactor operations engineer;
7 (iii) human factors analyst or engi-
8 neer;
9 (iv) risk and reliability analyst or en-
10 gineer;
11 (v) licensing project manager;
12 (vi) reactor engineer for severe acci-
13 dents;
14 (vii) geotechnical engineer;
15 (viii) structural engineer;
16 (ix) reactor systems engineer;
17 (x) reactor engineer;
18 (xi) radiation scientist;
19 (xii) seismic engineer; and
20 (xiii) electronics engineer; or

21 (B) positions to be filled by exceptionally
22 well-qualified persons that the Chairman, sub-
23 ject to subsection (e), determines are necessary
24 to fulfill the mission of the Commission.

25 (3) LIMITATIONS.—

1 (A) IN GENERAL.—The annual rate of
2 basic pay for a position described in paragraph
3 (2) may not exceed the per annum rate of sal-
4 ary payable for level III of the Executive Sched-
5 ule under section 5314 of title 5, United States
6 Code.

7 (B) NUMBER OF POSITIONS.—Appoint-
8 ments under paragraph (1)(B) may be made to
9 not more than—

10 (i) 10 positions described in para-
11 graph (2)(A) per fiscal year, not to exceed
12 a total of 50 positions; and

13 (ii) 10 positions described in para-
14 graph (2)(B) per fiscal year, not to exceed
15 a total of 50 positions.

16 (4) PERFORMANCE BONUS.—

17 (A) IN GENERAL.—Subject to subpara-
18 graphs (B) and (C), an employee may be paid
19 a 1-time performance bonus in an amount not
20 to exceed the least of—

21 (i) \$25,000;

22 (ii) the amount equal to 15 percent of
23 the annual rate of basic pay of the person;
24 and

1 (iii) the amount of the limitation that
2 is applicable for a calendar year under sec-
3 tion 5307(a)(1) of title 5, United States
4 Code.

5 (B) PERFORMANCE.—Any 1-time perform-
6 ance bonus under subparagraph (A) shall be
7 made to a person who demonstrated exceptional
8 performance in the applicable fiscal year, in-
9 cluding—

10 (i) leading a project team in a timely,
11 efficient, and predictable licensing review
12 to enable the safe use of nuclear tech-
13 nology;

14 (ii) making significant contributions
15 to a timely, efficient, and predictable li-
16 censing review to enable the safe use of
17 nuclear technology;

18 (iii) the resolution of novel or first-of-
19 a-kind regulatory issues;

20 (iv) developing or implementing licens-
21 ing or regulatory oversight processes to im-
22 prove the effectiveness of the Commission;
23 and

24 (v) other performance, as determined
25 by the Chairman, subject to subsection (e).

1 (C) LIMITATIONS.—The Commission may
2 pay a 1-time performance bonus under subpara-
3 graph (A) for not more than 15 persons per fis-
4 cal year, and a person who receives a 1-time
5 performance bonus under that subparagraph
6 may not receive another 1-time performance
7 bonus under that subparagraph for a period of
8 5 years thereafter.

9 (d) ANNUAL SOLICITATION FOR NUCLEAR REGU-
10 LATOR APPRENTICESHIP NETWORK APPLICATIONS.—The
11 Chairman, on an annual basis, shall solicit applications for
12 the Nuclear Regulator Apprenticeship Network.

13 (e) APPLICATION OF MERIT SYSTEM PRINCIPLES.—
14 To the maximum extent practicable, appointments under
15 subsections (b)(1) and (c)(1) and any 1-time performance
16 bonus under subsection (c)(4) shall be made in accordance
17 with the merit system principles set forth in section 2301
18 of title 5, United States Code.

19 (f) DELEGATION.—Pursuant to Reorganization Plan
20 No. 1 of 1980 (94 Stat. 3585; 5 U.S.C. app.), the Chair-
21 man shall delegate, subject to the direction and super-
22 vision of the Chairman, the authority provided by sub-
23 sections (b), (c), and (d) to the Executive Director for Op-
24 erations of the Commission.

1 (g) ANNUAL REPORT.—The Commission shall in-
2 clude in the annual budget justification of the Commis-
3 sion—

4 (1) information that describes—

5 (A) the total number of and the positions
6 of the persons appointed under the authority
7 provided by subsection (b);

8 (B) the total number of and the positions
9 of the persons paid at the rate determined
10 under the authority provided by subsection
11 (c)(1);

12 (C) the total number of and the positions
13 of the persons paid a 1-time performance bonus
14 under the authority provided by subsection
15 (c)(4);

16 (D) how the authority provided by sub-
17 sections (b) and (c) is being used, and has been
18 used during the previous fiscal year, to address
19 the hiring and retention needs of the Commis-
20 sion with respect to the positions described in
21 those subsections to which that authority is ap-
22 plicable;

23 (E) if the authority provided by sub-
24 sections (b) and (c) is not being used, or has

1 not been used, the reasons, including a jus-
2 tification, for not using that authority; and

3 (F) the attrition levels with respect to the
4 term-limited appointments made under sub-
5 section (b), including, with respect to persons
6 leaving a position before completion of the ap-
7 plicable term of service, the average length of
8 service as a percentage of the term of service;
9 (2) an assessment of—

10 (A) the current critical workforce needs of
11 the Commission, including any critical work-
12 force needs that the Commission anticipates in
13 the subsequent 5 fiscal years; and

14 (B) further skillsets that are or will be
15 needed for the Commission to fulfill the licens-
16 ing and oversight responsibilities of the Com-
17 mission; and

18 (3) the plans of the Commission to assess, de-
19 velop, and implement updated staff performance
20 standards, training procedures, and schedules.

21 (h) REPORT ON ATTRITION AND EFFECTIVENESS.—

22 Not later than September 30, 2032, the Commission shall
23 submit to the Committees on Appropriations and Environ-
24 ment and Public Works of the Senate and the Committees

1 on Appropriations and Energy and Commerce of the
2 House of Representatives a report that—

3 (1) describes the attrition levels with respect to
4 the term-limited appointments made under sub-
5 section (b), including, with respect to persons leav-
6 ing a position before completion of the applicable
7 term of service, the average length of service as a
8 percentage of the term of service;

9 (2) provides the views of the Commission on the
10 effectiveness of the authorities provided by sub-
11 sections (b) and (c) in helping the Commission fulfill
12 the mission of the Commission; and

13 (3) makes recommendations with respect to
14 whether the authorities provided by subsections (b)
15 and (c) should be continued, modified, or discon-
16 tinued.

17 **SEC. 502. COMMISSION CORPORATE SUPPORT FUNDING.**

18 (a) REPORT.—Not later than 3 years after the date
19 of enactment of this Act, the Commission shall submit to
20 the appropriate committees of Congress and make publicly
21 available a report that describes—

22 (1) the progress on the implementation of sec-
23 tion 102(a)(3) of the Nuclear Energy Innovation
24 and Modernization Act (42 U.S.C. 2215(a)(3)); and

1 “(ii) costs for salaries, travel, and
2 other support for the Office of the Com-
3 mission.”.

4 **SEC. 503. PERFORMANCE AND REPORTING UPDATE.**

5 Section 102(c) of the Nuclear Energy Innovation and
6 Modernization Act (42 U.S.C. 2215(c)) is amended—

7 (1) in paragraph (3)—

8 (A) in the paragraph heading, by striking
9 “180” and inserting “90”; and

10 (B) by striking “180” and inserting “90”;
11 and

12 (2) by adding at the end the following:

13 “(4) PERIODIC UPDATES TO METRICS AND
14 SCHEDULES.—

15 “(A) REVIEW AND ASSESSMENT.—Not less
16 frequently than once every 3 years, the Com-
17 mission shall review and assess, based on the li-
18 censing and regulatory activities of the Com-
19 mission, the performance metrics and milestone
20 schedules established under paragraph (1).

21 “(B) REVISIONS.—After each review and
22 assessment under subparagraph (A), the Com-
23 mission shall revise and improve, as appro-
24 priate, the performance metrics and milestone
25 schedules described in that subparagraph to

1 provide the most efficient metrics and schedules
2 reasonably achievable.”.

3 **TITLE VI—MISCELLANEOUS**

4 **SEC. 601. NUCLEAR CLOSURE COMMUNITIES.**

5 (a) DEFINITIONS.—In this section:

6 (1) COMMUNITY ADVISORY BOARD.—The term
7 “community advisory board” means a community
8 committee or other advisory organization that aims
9 to foster communication and information exchange
10 between a licensee planning for and involved in de-
11 commissioning activities and members of the com-
12 munity that decommissioning activities may affect.

13 (2) DECOMMISSION.—The term “decommis-
14 sion” has the meaning given the term in section
15 50.2 of title 10, Code of Federal Regulations (or
16 successor regulations).

17 (3) ELIGIBLE RECIPIENT.—The term “eligible
18 recipient” has the meaning given the term in section
19 3 of the Public Works and Economic Development
20 Act of 1965 (42 U.S.C. 3122).

21 (4) LICENSEE.—The term “licensee” has the
22 meaning given the term in section 50.2 of title 10,
23 Code of Federal Regulations (or successor regula-
24 tions).

1 (5) NUCLEAR CLOSURE COMMUNITY.—The
2 term “nuclear closure community” means a unit of
3 local government, including a county, city, town, vil-
4 lage, school district, or special district, that has been
5 impacted, or reasonably demonstrates to the satis-
6 faction of the Secretary that it will be impacted, by
7 a nuclear power plant licensed by the Commission
8 that—

9 (A) is not co-located with an operating nu-
10 clear power plant;

11 (B) is at a site with spent nuclear fuel;
12 and

13 (C) as of the date of enactment of this
14 Act—

15 (i) has ceased operations; or

16 (ii) has provided a written notification
17 to the Commission that it will cease oper-
18 ations.

19 (6) SECRETARY.—The term “Secretary” means
20 the Secretary of Commerce, acting through the As-
21 sistant Secretary of Commerce for Economic Devel-
22 opment.

23 (b) ESTABLISHMENT.—Not later than 180 days after
24 the date of enactment of this Act, the Secretary shall es-

1 establish a grant program to provide grants to eligible re-
2 cipients—

3 (1) to assist with economic development in nu-
4 clear closure communities; and

5 (2) to fund community advisory boards in nu-
6 clear closure communities.

7 (c) REQUIREMENT.—In carrying out this section, to
8 the maximum extent practicable, the Secretary shall im-
9 plement the recommendations described in the report sub-
10 mitted to Congress under section 108 of the Nuclear En-
11 ergy Innovation and Modernization Act (Public Law 115–
12 439; 132 Stat. 5577) entitled “Best Practices for Estab-
13 lishment and Operation of Local Community Advisory
14 Boards Associated with Decommissioning Activities at
15 Nuclear Power Plants”.

16 (d) DISTRIBUTION OF FUNDS.—The Secretary shall
17 establish a formula to ensure, to the maximum extent
18 practicable, geographic diversity among grant recipients
19 under this section.

20 (e) AUTHORIZATION OF APPROPRIATIONS.—

21 (1) IN GENERAL.—There are authorized to be
22 appropriated to the Secretary—

23 (A) to carry out subsection (b)(1),
24 \$35,000,000 for each of fiscal years 2023
25 through 2028; and

1 (B) to carry out subsection (b)(2),
2 \$5,000,000 for each of fiscal years 2023
3 through 2025.

4 (2) AVAILABILITY.—Amounts made available
5 under this section shall remain available for a period
6 of 5 years beginning on the date on which the
7 amounts are made available.

8 (3) NO OFFSET.—None of the funds made
9 available under this section may be used to offset
10 the funding for any other Federal program.

11 **SEC. 602. TECHNICAL CORRECTION.**

12 Section 104 c. of the Atomic Energy Act of 1954 (42
13 U.S.C. 2134(c)) is amended—

14 (1) by striking the third sentence and inserting
15 the following:

16 “(3) LIMITATION ON UTILIZATION FACILI-
17 TIES.—The Commission may issue a license under
18 this section for a utilization facility useful in the
19 conduct of research and development activities of the
20 types specified in section 31 if—

21 “(A) not more than 75 percent of the an-
22 nual costs to the licensee of owning and oper-
23 ating the facility are devoted to the sale, other
24 than for research and development or education
25 and training, of—

1 “(i) nonenergy services;

2 “(ii) energy; or

3 “(iii) a combination of nonenergy
4 services and energy; and

5 “(B) not more than 50 percent of the an-
6 nual costs to the licensee of owning and oper-
7 ating the facility are devoted to the sale of en-
8 ergy.”;

9 (2) in the second sentence, by striking “The
10 Commission” and inserting the following:

11 “(2) REGULATION.—The Commission”; and

12 (3) by striking “c. The Commission” and in-
13 sserting the following:

14 “c. RESEARCH AND DEVELOPMENT ACTIVITIES.—

15 “(1) IN GENERAL.—Subject to paragraphs (2)
16 and (3), the Commission”.

17 **SEC. 603. REPORT ON ENGAGEMENT WITH THE GOVERN-**
18 **MENT OF CANADA WITH RESPECT TO NU-**
19 **CLEAR WASTE ISSUES IN THE GREAT LAKES**
20 **BASIN.**

21 Not later than 1 year after the date of enactment
22 of this Act, the Commission shall submit to Congress a
23 report describing any engagement between the Commis-
24 sion and the Government of Canada with respect to nu-
25 clear waste issues in the Great Lakes Basin.