118TH CONGRESS
1ST SESSION

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.

IN THE SENATE OF THE UNITED STATES

MARCH 30, 2023

Mrs. CAPITO (for herself, Mr. WHITEHOUSE, Mr. BARRASSO, Mr. CARPER, Mr. CRAPO, Mr. BOOKER, Mr. GRAHAM, Mr. KELLY, Mr. RISCH, and Mr. HEINRICH) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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A BILL

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.

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

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the "Accelerating Deployment of Versatile, Advanced Nuclear

for Clean Energy Act of 2023'' or the ''ADVANCE Act of 2023''.

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

SEC. 2. DEFINITIONS.

In this Act:

(1) ACCIDENT TOLERANT FUEL.—The term ''accident tolerant fuel'' has the meaning given the term in section 107(a) of the Nuclear Energy Innovation and Modernization Act (Public Law 115–439; 132 Stat. 5577).

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

(3) ADVANCED NUCLEAR FUEL.—The term ''advanced nuclear fuel'' means—

(A) advanced nuclear reactor fuel; and

(B) accident tolerant fuel.

(4) ADVANCED NUCLEAR REACTOR.—The term ''advanced nuclear reactor'' has the meaning given the term in section 3 of the Nuclear Energy Innovation and Modernization Act (42 U.S.C. 2215 note; Public Law 115–439).

(5) ADVANCED NUCLEAR REACTOR FUEL.—The term ''advanced nuclear reactor fuel'' has the meaning given the term in section 3 of the Nuclear En-

ergy Innovation and Modernization Act (42 U.S.C. 2215 note; Public Law 115–439).

(6) APPROPRIATE COMMITTEES OF CONGRESS.—The term ''appropriate committees of Congress'' means—

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

(B) the Committee on Energy and Commerce of the House of Representatives.

(7) COMMISSION.—The term ''Commission'' means the Nuclear Regulatory Commission.

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

(9) NATIONAL LABORATORY.—The term ''National Laboratory'' has the meaning given the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

TITLE I—AMERICAN NUCLEAR LEADERSHIP

SEC. 101. INTERNATIONAL NUCLEAR REACTOR EXPORT AND INNOVATION ACTIVITIES.

(a) COORDINATION.—

(1) IN GENERAL.—The Commission shall—

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

(i) nuclear reactor import and export licensing; and

(ii) international regulatory cooperation and assistance relating to nuclear reactors, including with countries that are members of the Organisation for Economic Co-operation and Development; and

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

(i) the consideration of international technical standards to establish the licensing and regulatory basis to assist the design, construction, and operation of nuclear systems;

(ii) efforts to help build competent nuclear regulatory organizations and legal frameworks in countries seeking to develop nuclear power; and

(iii) exchange programs and training provided to other countries relating to nuclear regulation and oversight to improve nuclear technology licensing, in accordance with paragraph (2).

(2) EXCHANGE PROGRAMS AND TRAINING.—With respect to the exchange programs and training described in paragraph (1)(B)(iii), the Commission shall coordinate, as applicable, with—

(A) the Secretary of Energy;

(B) National Laboratories;

(C) the private sector; and

(D) institutions of higher education.

(b) AUTHORITY TO ESTABLISH BRANCH.—The Commission may establish within the Office of International Programs a branch, to be known as the ''International Nuclear Reactor Export and Innovation Branch'', to carry out such international nuclear reactor export and innovation activities as the Commission determines to be appropriate and within the mission of the Commission.

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

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

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

''(4) INTERNATIONAL NUCLEAR REACTOR EXPORT AND INNOVATION ACTIVITIES.—The Commission shall identify in the annual budget justification

international nuclear reactor export and innovation activities described in section 101(a) of the ADVANCE Act of 2023.''; and

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

''(iv) Costs for international nuclear reactor export and innovation activities described in section 101(a) of the ADVANCE Act of 2023.''.

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

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

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

(a) DEFINITION OF COVERED FUEL.—In this section, the term ''covered fuel'' means enriched uranium that is fabricated into fuel assemblies for nuclear reactors by an entity that—

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

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

(b) PROHIBITION ON UNLICENSED POSSESSION OR OWNERSHIP OF COVERED FUEL.—Unless specifically authorized by the Commission in a license issued under section 53 of the Atomic Energy Act of 1954 (42 U.S.C. 2073) and part 70 of title 10, Code of Federal Regulations (or successor regulations), no person subject to the jurisdiction of the Commission may possess or own covered fuel.

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

(1) CONSULTATION REQUIRED PRIOR TO ISSUANCE.—The Commission shall not issue a license to possess or own covered fuel under section 53 of the Atomic Energy Act of 1954 (42 U.S.C. 2073) and part 70 of title 10, Code of Federal Regulations (or successor regulations), unless the Commission has first consulted with the Secretary of Energy and the Secretary of State before issuing the license.

(2) PROHIBITION ON ISSUANCE OF LICENSE.—

(A) IN GENERAL.—Subject to subparagraph (C), a license to possess or own covered

fuel shall not be issued if the Secretary of Energy and the Secretary of State make the determination described in subparagraph (B).

(B) DETERMINATION.—

(i) IN GENERAL.—The determination referred to in subparagraph (A) is a determination that possession or ownership, as applicable, of covered fuel poses a threat to the national security of the United States that adversely impacts the physical and economic security of the United States.

(ii) JOINT DETERMINATION.—A determination described in clause (i) shall be jointly made by the Secretary of Energy and the Secretary of State.

(iii) TIMELINE.—

(I) NOTICE OF APPLICATION.—Not later than 30 days after the date on which the Commission receives an application for a license to possess or own covered fuel, the Commission shall notify the Secretary of Energy and the Secretary of State of the application.

(II) DETERMINATION.—The Secretary of Energy and the Secretary of State shall have a period of 180 days, beginning on the date on which the Commission notifies the Secretary of Energy and the Secretary of State under subclause (I) of an application for a license to possess or own covered fuel, in which to make the determination described in clause (i).

(III) COMMISSION NOTIFICATION.—On making the determination described in clause (i), the Secretary of Energy and the Secretary of State shall immediately notify the Commission.

(IV) CONGRESSIONAL NOTIFICATION.—Not later than 30 days after the date on which the Secretary of Energy and the Secretary of State notify the Commission under subclause (III), the Commission shall notify the appropriate committees of Congress of the determination.

(V) PUBLIC NOTICE.—Not later than 15 days after the date on which the Commission notifies Congress under subclause (IV) of a determination made under clause (i), the Commission shall make that determination publicly available.

(C) EFFECT OF NO DETERMINATION.—The prohibition described in subparagraph (A) shall not apply if the Secretary of Energy and the Secretary of State do not make the determination described in subparagraph (B) by the date described in clause (iii)(II) of that subparagraph.

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

SEC. 103. EXPORT LICENSE REQUIREMENTS.

(a) DEFINITION OF LOW-ENRICHED URANIUM.—In this section, the term ''low-enriched uranium'' means uranium enriched to less than 20 percent of the uranium-235 isotope.

(b) REQUIREMENT.—The Commission shall not issue an export license for the transfer of any item described in subsection (d) to a country described in subsection (c)

unless the Commission makes a determination that such transfer will not be inimical to the common defense and security of the United States.

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

(1) has not concluded and ratified an Additional Protocol to its safeguards agreement with the International Atomic Energy Agency; or

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

(d) ITEMS DESCRIBED.—An item referred to in subsection (b) includes—

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

(2) a nuclear reactor that uses nuclear fuel described in paragraph (1); and

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

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

(B) the separation of plutonium; or

(C) the separation of the uranium-233 isotope.

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

SEC. 104. COORDINATED INTERNATIONAL ENGAGEMENT.

(a) DEFINITIONS.—In this section:

(1) EMBARKING CIVIL NUCLEAR ENERGY NATION.—

(A) IN GENERAL.—The term ''embarking civil nuclear energy nation'' means a country that—

(i)(I) does not have a civil nuclear program;

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

ing safeguards and a legal and regulatory framework; or

(III) is in the process of selecting, developing, constructing, or utilizing an advanced nuclear reactor or advanced civil nuclear technologies; and

(ii) is eligible to receive development lending from the World Bank.

(B) EXCLUSIONS.—The term ''embarking civil nuclear energy nation'' does not include—

(i) the People's Republic of China;

(ii) the Russian Federation;

(iii) the Republic of Belarus;

(iv) the Islamic Republic of Iran;

(v) the Democratic People's Republic of Korea;

(vi) the Republic of Cuba;

(vii) the Bolivarian Republic of Venezuela;

(viii) the Syrian Arab Republic; or

(ix) any other country—

(I) the property or interests in property of the government of which are blocked pursuant to the Inter-

national Emergency Economic Powers Act (50 U.S.C. 1701 et seq.); or

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

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

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

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

(dd) any other relevant provision of law.

(2) SECRETARIES.—The term ''Secretaries'' means the Secretary of Commerce and the Secretary of Energy, acting—

(A) in consultation with each other; and

(B) in coordination with—

(i) the Secretary of State;

(ii) the Commission;

(iii) the Secretary of the Treasury;

(iv) the President of the Export-Import Bank of the United States; and

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

(b) INTERNATIONAL CIVIL NUCLEAR MODERNIZATION INITIATIVE.—

(1) IN GENERAL.—The Secretaries shall establish and carry out, in accordance with applicable nuclear technology export laws (including regulations), an international initiative to modernize civil nuclear outreach to embarking civil nuclear energy nations.

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

(A) the Secretary of Commerce shall—

(i) expand outreach by the executive branch to the private investment community to create public-private financing relationships to assist in the export of civil nuclear technology to embarking civil nuclear energy nations;

(ii) seek to coordinate, to the maximum extent practicable, the work carried out by each of—

(I) the Commission;

(II) the Department of Energy;

(III) the Department of State;

(IV) the Nuclear Energy Agency;

(V) the International Atomic Energy Agency; and

(VI) other agencies, as the Secretary of Commerce determines to be appropriate; and

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

(B) the Secretary of Energy shall—

(i) assist nongovernmental organizations and appropriate offices, administrations, agencies, laboratories, and programs of the Federal Government in providing education and training to foreign governments in nuclear safety, security, and safeguards—

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

(II) independently, if the applicable nongovernmental organization, office, administration, agency, laboratory, or program determines that it would be more advantageous under the circumstances to provide the applicable education and training independently; and

(ii) assist the efforts of the International Atomic Energy Agency to expand the support provided by the International Atomic Energy Agency to embarking civil nuclear energy nations for nuclear safety, security, and safeguards.

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

TITLE II—DEVELOPING AND DEPLOYING NEW NUCLEAR TECHNOLOGIES

SEC. 201. FEES FOR ADVANCED NUCLEAR REACTOR APPLICATION REVIEW.

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

(1) by redesignating paragraphs (2) through (15) as paragraphs (3), (5), (6), (7), (8), (9), (11), (14), (15), (16), (17), (18), (19), and (20), respectively;

(2) by inserting after paragraph (1) the following:

''(2) ADVANCED NUCLEAR REACTOR APPLICANT.—The term 'advanced nuclear reactor applicant' means an entity that has submitted to the Commission an application to receive a license for an advanced nuclear reactor under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.).'';

(3) by inserting after paragraph (3) (as so redesignated) the following:

''(4) AGENCY SUPPORT.—The term 'agency support' means the resources of the Commission that are located in executive, administrative, and

other support offices of the Commission, as described in the document of the Commission entitled 'FY 2022 Final Fee Rule Work Papers' (or a successor document).";

(4) by inserting after paragraph (9) (as so redesignated) the following:

"(10) HOURLY RATE FOR MISSION-DIRECT PROGRAM SALARIES AND BENEFITS FOR THE NUCLEAR REACTOR SAFETY PROGRAM.—The term 'hourly rate for mission-direct program salaries and benefits for the Nuclear Reactor Safety Program' means the quotient obtained by dividing—

"(A) the full-time equivalent rate (within the meaning of the document of the Commission entitled 'FY 2022 Final Fee Rule Work Papers' (or a successor document)) for mission-direct program salaries and benefits for the Nuclear Reactor Safety Program (as determined by the Commission) for a fiscal year; by

"(B) the productive hours assumption for that fiscal year, determined in accordance with the formula established in the document referred to in subparagraph (A) (or a successor document)."; and

(5) by inserting after paragraph (11) (as so redesignated) the following:

''(12) MISSION-DIRECT PROGRAM SALARIES AND BENEFITS FOR THE NUCLEAR REACTOR SAFETY PROGRAM.—The term 'mission-direct program salaries and benefits for the Nuclear Reactor Safety Program' means the resources of the Commission that are allocated to the Nuclear Reactor Safety Program (as determined by the Commission) to perform core work activities committed to fulfilling the mission of the Commission to protect public health and safety, promote the common defense and security, and protect the environment, as described in the document of the Commission entitled 'FY 2022 Final Fee Rule Work Papers' (or a successor document).

''(13) MISSION-INDIRECT PROGRAM SUPPORT.—The term 'mission-indirect program support' means the resources of the Commission that support the core mission-direct activities for the Nuclear Reactor Safety Program of the Commission (as determined by the Commission), as described in the document of the Commission entitled 'FY 2022 Final Fee Rule Work Papers' (or a successor document).''.

(b) EXCLUDED ACTIVITIES.—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 101(c)(1)(B)) is amended by adding at the end the following:

"(v) The total costs of mission-indirect program support and agency support that, under paragraph (2)(B), may not be included in the hourly rate charged for fees assessed to advanced nuclear reactor applicants.".

(c) FEES FOR SERVICE OR THING OF VALUE.—Section 102(b) of the Nuclear Energy Innovation and Modernization Act (42 U.S.C. 2215(b)) is amended by striking paragraph (2) and inserting the following:

"(2) FEES FOR SERVICE OR THING OF VALUE.—

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

''(B) ADVANCED NUCLEAR REACTOR APPLICANTS.—The hourly rate charged for fees assessed to advanced nuclear reactor applicants under this paragraph relating to the review of a submitted application described in section 3(1) shall not exceed the hourly rate for mission-direct program salaries and benefits for the Nuclear Reactor Safety Program.''.

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

SEC. 202. ADVANCED NUCLEAR REACTOR PRIZES.

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

''(f) PRIZES FOR ADVANCED NUCLEAR REACTOR LICENSING.—

''(1) DEFINITION OF ELIGIBLE ENTITY.—In this subsection, the term 'eligible entity' means—

''(A) a non-Federal entity; and

''(B) the Tennessee Valley Authority.

''(2) PRIZE FOR ADVANCED NUCLEAR REACTOR LICENSING.—

''(A) IN GENERAL.—Notwithstanding section 169 of the Atomic Energy Act of 1954 (42 U.S.C. 2209) and subject to the availability of

appropriations, the Secretary is authorized to make, with respect to each award category described in subparagraph (C), an award in an amount described in subparagraph (B) to the first eligible entity—

"(i) to which the Commission issues an operating license for an advanced nuclear reactor under part 50 of title 10, Code of Federal Regulations (or successor regulations), for which an application has not been approved by the Commission as of the date of enactment of this subsection; or

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

"(I) that is issued under subpart C of part 52 of that title (or successor regulations); and

"(II) for which an application has not been approved by the Com-

mission as of the date of enactment of this subsection.

"(B) AMOUNT OF AWARD.—An award under subparagraph (A) shall be in an amount equal to the total amount assessed by the Commission and collected under section 102(b)(2) from the eligible entity receiving the award for costs relating to the issuance of the license described in that subparagraph, including, as applicable, costs relating to the issuance of an associated construction permit described in section 50.23 of title 10, Code of Federal Regulations (or successor regulations), or early site permit (as defined in section 52.1 of that title (or successor regulations)).

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

"(i) the first advanced nuclear reactor for which the Commission—

"(I) issues a license in accordance with clause (i) of subparagraph (A); or

"(II) makes a finding in accordance with clause (ii) of that subparagraph;

"(ii) an advanced nuclear reactor that—

"(I) uses isotopes derived from spent nuclear fuel (as defined in section 2 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101)) or depleted uranium as fuel for the advanced nuclear reactor; and

"(II) is the first advanced nuclear reactor described in subclause (I) for which the Commission—

"(aa) issues a license in accordance with clause (i) of subparagraph (A); or

"(bb) makes a finding in accordance with clause (ii) of that subparagraph;

"(iii) an advanced nuclear reactor that—

"(I) is a nuclear integrated energy system—

"(aa) that is composed of 2 or more co-located or jointly operated subsystems of energy gen-

eration, energy storage, or other technologies;

"(bb) in which not fewer than 1 subsystem described in item (aa) is a nuclear energy system; and

"(cc) the purpose of which is—

"(AA) to reduce greenhouse gas emissions in both the power and nonpower sectors; and

"(BB) to maximize energy production and efficiency; and

"(II) is the first advanced nuclear reactor described in subclause (I) for which the Commission—

"(aa) issues a license in accordance with clause (i) of subparagraph (A); or

"(bb) makes a finding in accordance with clause (ii) of that subparagraph;

"(iv) an advanced reactor that—

''(I) operates flexibly to generate electricity or high temperature process heat for nonelectric applications; and

''(II) is the first advanced nuclear reactor described in subclause (I) for which the Commission—

''(aa) issues a license in accordance with clause (i) of subparagraph (A); or

''(bb) makes a finding in accordance with clause (ii) of that subparagraph; and

''(v) the first advanced nuclear reactor for which the Commission grants approval to load nuclear fuel pursuant to the technology-inclusive regulatory framework established under subsection (a)(4).

''(3) FEDERAL FUNDING LIMITATION.—An award under this subsection shall not exceed the total amount expended (excluding any expenditures made with Federal funds received for the applicable project and an amount equal to the minimum cost-share required under section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352)) by the eligible

entity receiving the award for licensing costs relating to the project for which the award is made.''.

SEC. 203. REPORT ON UNIQUE LICENSING CONSIDERATIONS RELATING TO THE USE OF NUCLEAR ENERGY FOR NONELECTRIC APPLICATIONS.

(a) IN GENERAL.—Not later than 270 days after the date of enactment of this Act, the Commission shall submit to the appropriate committees of Congress a report (referred to in this section as the ''report'') addressing any unique licensing issues or requirements relating to—

(1) the flexible operation of nuclear reactors, such as ramping power output and switching between electricity generation and nonelectric applications;

(2) the use of advanced nuclear reactors exclusively for nonelectric applications; and

(3) the colocation of nuclear reactors with industrial plants or other facilities.

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

(1) the Secretary of Energy;

(2) the nuclear energy industry;

(3) technology developers;

(4) the industrial, chemical, and medical sectors;

(5) nongovernmental organizations; and

(6) other public stakeholders.

(c) CONTENTS.—

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

(A) any unique licensing issues or requirements relating to the matters described in paragraphs (1) through (3) of subsection (a), including, with respect to the nonelectric applications referred to in paragraphs (1) and (2) of that subsection, any licensing issues or requirements relating to the use of nuclear energy in—

(i) hydrogen or other liquid and gaseous fuel or chemical production;

(ii) water desalination and wastewater treatment;

(iii) heat for industrial processes;

(iv) district heating;

(v) energy storage;

(vi) industrial or medical isotope production; and

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

(B) options for addressing those issues or requirements—

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

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

(iii) through a new rulemaking; and

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

(2) COST ESTIMATES, BUDGETS, AND TIMEFRAMES.—The report shall include cost estimates, proposed budgets, and proposed timeframes for implementing risk-informed and performance-based regulatory guidance in the licensing of nuclear reactors for nonelectric applications.

SEC. 204. ENABLING PREPARATIONS FOR THE DEMONSTRATION OF ADVANCED NUCLEAR REACTORS ON DEPARTMENT OF ENERGY SITES.

(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 amended by adding at the end the following:

"(vi) Costs for—

"(I) activities to review and approve or disapprove an application for an early site permit (as defined in section 52.1 of title 10, Code of Federal Regulations (or a successor regulation)) to demonstrate an advanced nuclear reactor on a Department of Energy site; and

"(II) pre-application activities relating to an early site permit (as so defined) to demonstrate an advanced nuclear reactor on a Department of Energy site.".

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

SEC. 205. CLARIFICATION ON FUSION REGULATION.

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

(1) by striking "Not later" and inserting the following:

"(A) IN GENERAL.—Not later"; and

(2) by adding at the end the following:

''(B) EXCLUSION OF FUSION REACTORS.—For purposes of subparagraph (A), the term 'advanced reactor applicant' does not include an applicant seeking a license for a fusion reactor.''.

SEC. 206. REGULATORY ISSUES FOR NUCLEAR FACILITIES AT BROWNFIELD SITES.

(a) DEFINITIONS.—

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

(2) PRODUCTION FACILITY.—The term ''production facility'' has the meaning given the term in section 11 of the Atomic Energy Act of 1954 (42 U.S.C. 2014).

(3) RETIRED FOSSIL FUEL SITE.—The term ''retired fossil fuel site'' means the site of 1 or more fossil fuel electric generation facilities that are retired or scheduled to retire, including multi-unit facilities that are partially shut down.

(4) UTILIZATION FACILITY.—The term ''utilization facility'' has the meaning given the term in sec-

tion 11 of the Atomic Energy Act of 1954 (42 U.S.C. 2014).

(b) IDENTIFICATION OF REGULATORY ISSUES.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Commission shall evaluate the extent to which modification of regulations, guidance, or policy is needed to enable timely licensing reviews for, and to support the oversight of, production facilities or utilization facilities at brownfield sites.

(2) REQUIREMENT.—In carrying out paragraph (1), the Commission shall consider how licensing reviews for production facilities or utilization facilities at brownfield sites may be expedited by considering matters relating to siting and operating a production facility or a utilization facility at or near a retired fossil fuel site to support the reuse of existing site infrastructure, including—

(A) electric switchyard components and transmission infrastructure;

(B) heat-sink components;

(C) steam cycle components;

(D) roads;

(E) railroad access; and

(F) water availability.

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

(c) LICENSING.—

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

(A) develop and implement strategies to enable timely licensing reviews for, and to support the oversight of, production facilities or utilization facilities at brownfield sites, including retired fossil fuel sites; or

(B) initiate a rulemaking to enable timely licensing reviews for, and to support the oversight of, of production facilities or utilization facilities at brownfield sites, including retired fossil fuel sites.

(2) REQUIREMENTS.—In carrying out paragraph (1), consistent with the role of the Commission in protecting public health and safety and the common defense and security, the Commission shall consider matters relating to—

(A) the use of existing site infrastructure;

(B) existing emergency preparedness organizations and planning;

(C) the availability of historical site-specific environmental data;

(D) previously approved environmental reviews required by the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.);

(E) activities associated with the potential decommissioning of facilities or decontamination and remediation at brownfield sites; and

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

(d) REPORT.—Not later than 3 years after the date of enactment of this Act, the Commission shall submit to the appropriate committees of Congress a report describing the actions taken by the Commission under subsection (c).

SEC. 207. APPALACHIAN REGIONAL COMMISSION NUCLEAR ENERGY DEVELOPMENT.

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

"§ 14512. Appalachian Regional Commission nuclear energy development

''(a) DEFINITIONS.—In this section:

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

''(2) PRODUCTION FACILITY.—The term 'production facility' has the meaning given the term in section 11 of the Atomic Energy Act of 1954 (42 U.S.C. 2014).

''(3) RETIRED FOSSIL FUEL SITE.—The term 'retired fossil fuel site' means the site of 1 or more fossil fuel electric generation facilities that are retired or scheduled to retire, including multi-unit facilities that are partially shut down.

''(4) UTILIZATION FACILITY.—The term 'utilization facility' has the meaning given the term in section 11 of the Atomic Energy Act of 1954 (42 U.S.C. 2014).

''(b) AUTHORITY.—The Appalachian Regional Commission may provide technical assistance to, make grants to, enter into contracts with, or otherwise provide amounts to individuals or entities in the Appalachian region for projects and activities—

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

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

''(2) to assist with workforce training or retraining to perform activities relating to the siting and operation of a production facility or a utilization facility at a brownfield site, including a retired fossil fuel site; and

''(3) to engage with the Nuclear Regulatory Commission, the Department of Energy, and other Federal agencies with expertise in civil nuclear energy.

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

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

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

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

''(d) SOURCES OF ASSISTANCE.—Subject to subsection (c), a grant provided under this section may be provided from amounts made available to carry out this section, in combination with amounts made available—

''(1) under any other Federal program; or

''(2) from any other source.

''(e) FEDERAL SHARE.—Notwithstanding any provision of law limiting the Federal share under any other Federal program, amounts made available to carry out this section may be used to increase that Federal share, as the Appalachian Regional Commission determines to be appropriate.''.

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

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

(2) by inserting after subsection (d) the following:

''(e) APPALACHIAN REGIONAL COMMISSION NUCLEAR ENERGY DEVELOPMENT.—Of the amounts made

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

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

''14511. Appalachian regional energy hub initiative.
''14512. Appalachian Regional Commission nuclear energy development.''.

TITLE III—PRESERVING EXISTING NUCLEAR ENERGY GENERATION

SEC. 301. INVESTMENT BY ALLIES.

(a) IN GENERAL.—The prohibitions against issuing certain licenses for utilization facilities to certain corporations and other entities described in the second sentence of section 103 d. of the Atomic Energy Act of 1954 (42 U.S.C. 2133(d)) and the second sentence of section 104 d. of that Act (42 U.S.C. 2134(d)) shall not apply to an entity described in subsection (b) if the Commission determines that issuance of the applicable license to that entity is not inimical to—

(1) the common defense and security; or

(2) the health and safety of the public.

(b) ENTITIES DESCRIBED.—An entity referred to in subsection (a) is a corporation or other entity that is owned, controlled, or dominated by—

(1) the government of—

(A) a country that is a member of the Group of Seven as of November 25, 2020, which includes the United Kingdom, Germany, Canada, Japan, France, and Italy; or

(B) the Republic of Korea;

(2) a corporation that is incorporated in a country described in subparagraph (A) or (B) of paragraph (1); or

(3) an alien who is a national of a country described in subparagraph (A) or (B) of paragraph (1).

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

(d) SAVINGS CLAUSE.—Nothing in this section affects the requirements of section 721 of the Defense Production Act of 1950 (50 U.S.C. 4565).

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

(a) EXTENSION.—Section 170 of the Atomic Energy Act of 1954 (42 U.S.C. 2210) (commonly known as the

''Price-Anderson Act'') is amended by striking ''December 31, 2025'' each place it appears and inserting ''December 31, 2045''.

(b) REPORT.—Section 170 p. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(p)) is amended by striking ''December 31, 2021'' and inserting ''December 31, 2041''.

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

SEC. 401. REPORT ON ADVANCED METHODS OF MANUFACTURING AND CONSTRUCTION FOR NUCLEAR ENERGY APPLICATIONS.

(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Commission shall submit to the appropriate committees of Congress a report (referred to in this section as the ''report'') on manufacturing and construction for nuclear energy applications.

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

(1) the Secretary of Energy;

(2) the nuclear energy industry;

(3) National Laboratories;

(4) institutions of higher education;

(5) nuclear and manufacturing technology developers;

(6) the manufacturing and construction industries, including manufacturing and construction companies with operating facilities in the United States;

(7) standards development organizations;

(8) labor unions;

(9) nongovernmental organizations; and

(10) other public stakeholders.

(c) CONTENTS.—

(1) IN GENERAL.—The report shall—

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

(i) advanced manufacturing processes;

(ii) advanced construction techniques; and

(iii) rapid improvement or iterative innovation processes;

(B) examine—

(i) the requirements for nuclear-grade components in manufacturing and construction for nuclear energy applications;

(ii) opportunities to use standard materials, parts, or components in manufac-

turing and construction for nuclear energy applications;

(iii) opportunities to use standard materials that are in compliance with existing codes to provide acceptable approaches to support or encapsulate new materials that do not yet have applicable codes; and

(iv) requirements relating to the transport of a fueled advanced nuclear reactor core from a manufacturing licensee to a licensee that holds a license to construct and operate a facility at a particular site;

(C) identify any safety aspects of innovative advanced manufacturing processes and advanced construction techniques that are not addressed by existing codes and standards, so that generic guidance may be updated or created, as necessary;

(D) identify options for addressing the issues, requirements, and opportunities examined under subparagraphs (A) and (B)—

(i) within the existing regulatory framework; or

(ii) through a new rulemaking;

(E) identify how addressing the issues, requirements, and opportunities examined under subparagraphs (A) and (B) will impact opportunities for domestic nuclear manufacturing and construction developers; and

(F) describe the extent to which Commission action is needed to implement any matter described in the report.

(2) COST ESTIMATES, BUDGETS, AND TIMEFRAMES.—The report shall include cost estimates, proposed budgets, and proposed timeframes for implementing risk-informed and performance-based regulatory guidance for manufacturing and construction for nuclear energy applications.

SEC. 402. NUCLEAR ENERGY TRAINEESHIP.

Section 313 of division C of the Omnibus Appropriations Act, 2009 (42 U.S.C. 16274a), is amended—

(1) in subsection (a), by striking ''Nuclear Regulatory'';

(2) in subsection (b)(1), in the matter preceding subparagraph (A), by inserting ''and subsection (c)'' after ''paragraph (2)'';

(3) in subsection (c)—

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

(B) by striking paragraph (1) and inserting the following:

''(1) ADVANCED NUCLEAR REACTOR.—The term 'advanced nuclear reactor' has the meaning given the term in section 951(b) of the Energy Policy Act of 2005 (42 U.S.C. 16271(b)).

''(2) COMMISSION.—The term 'Commission' means the Nuclear Regulatory Commission.

''(3) INSTITUTION OF HIGHER EDUCATION.—The term 'institution of higher education' has the meaning given the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

''(4) NATIONAL LABORATORY.—The term 'National Laboratory' has the meaning given the term in section 951(b) of the Energy Policy Act of 2005 (42 U.S.C. 16271(b)).'';

(4) in subsection (d)(2), by striking ''Nuclear Regulatory'';

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

(6) by inserting after subsection (b) the following:

''(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—

''(A) nuclear criticality safety; and

''(B) 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.''.

SEC. 403. REPORT ON COMMISSION READINESS AND CAPACITY TO LICENSE ADDITIONAL CONVERSION AND ENRICHMENT CAPACITY TO REDUCE RELIANCE ON URANIUM FROM RUSSIA.

Not later than 180 days after the date of enactment of this Act, the Commission shall submit to the appropriate committees of Congress a report on the readiness and capacity of the Commission to license additional conversion and enrichment capacity at existing and new fuel cycle facilities to reduce reliance on nuclear fuel that is recovered, converted, enriched, or fabricated by an entity that—

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

(2) is organized under the laws of, or otherwise subject to the jurisdiction of, the Russian Federation.

SEC. 404. ANNUAL REPORT ON THE SPENT NUCLEAR FUEL AND HIGH-LEVEL RADIOACTIVE WASTE INVENTORY IN THE UNITED STATES.

(a) DEFINITIONS.—In this section:

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

(2) SPENT NUCLEAR FUEL.—The term ''spent nuclear fuel'' has the meaning given the term in section 2 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101).

(3) STANDARD CONTRACT.—The term ''standard contract'' has the meaning given the term ''contract'' in section 961.3 of title 10, Code of Federal Regulations (or a successor regulation).

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

(1) the annual and cumulative amount of payments made by the United States to the holder of a standard contract due to a partial breach of con-

tract under the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101 et seq.) resulting in financial damages to the holder;

(2) the cumulative amount spent by the Department of Energy since fiscal year 2008 to reduce future payments projected to be made by the United States to any holder of a standard contract due to a partial breach of contract under the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101 et seq.);

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

(4) the projected lifecycle costs to store, manage, transport, and dispose of the projected inventory of spent nuclear fuel and high-level radioactive waste in the United States, including spent nuclear fuel and high-level radioactive waste expected to be generated from existing reactors through 2050;

(5) any mechanisms for better accounting of liabilities for the lifecycle costs of the spent nuclear fuel and high-level radioactive waste inventory in the United States; and

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

accounting of spent nuclear fuel and high-level radioactive waste costs and liabilities.

SEC. 405. AUTHORIZATION OF APPROPRIATIONS FOR SUPERFUND ACTIONS AT ABANDONED MINING SITES ON TRIBAL LAND.

(a) DEFINITIONS.—In this section:

(1) ELIGIBLE NON-NPL SITE.—The term ''eligible non-NPL site'' means a site—

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

(B) with respect to which the Administrator determines that—

(i) the site would be eligible for listing on the National Priorities List based on the presence of hazards from contamination at the site, applying the hazard ranking system described in section 105(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9605(c)); and

(ii) for removal site evaluations, engineering evaluations/cost analyses, remedial planning activities, remedial investigations and feasibility studies, and other actions

taken pursuant to section 104(b) of that Act (42 U.S.C. 9604), the site—

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

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

(2) INDIAN TRIBE.—The term ''Indian Tribe'' has the meaning given the term ''Indian tribe'' in section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601).

(3) NATIONAL PRIORITIES LIST.—The term ''National Priorities List'' means the National Priorities List developed by the President in accordance with section 105(a)(8)(B) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9605(a)(8)(B)).

(4) REMEDIAL ACTION; REMOVAL; RESPONSE.—The terms ''remedial action'', ''removal'', and ''response'' have the meanings given those terms in section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601).

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

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

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

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

(c) USES OF AMOUNTS.—Amounts appropriated under subsection (b)(1) shall be used by the Administrator—

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

(2) to carry out response actions, including removal and remedial planning activities, removal and remedial studies, remedial actions, and other actions taken pursuant to section 104(b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9604(b)) on abandoned mine land located on Tribal land at—

(A) eligible non-NPL sites; and

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

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

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

(e) TRIBAL GRANTS.—

(1) IN GENERAL.—The Administrator may use amounts appropriated under subsection (b)(1) to make grants to eligible entities described in paragraph (2) for the purposes described in paragraph (3).

(2) ELIGIBLE ENTITIES DESCRIBED.—An eligible entity referred to in paragraph (1) is—

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

(B) a legally established organization of Indians that—

(i) is controlled, sanctioned, or chartered by the governing bodies of 2 or more

Indian Tribes to be served, or that is democratically elected by the adult members of the Indian community to be served, by that organization; and

(ii) includes the maximum participation of Indians in all phases of the activities of that organization.

(3) USE OF GRANT FUNDS.—A grant under this subsection shall be used—

(A) in accordance with the second sentence of section 117(e)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9617(e)(1));

(B) for obtaining technical assistance in carrying out response actions under subparagraph (C); or

(C) for carrying out response actions, if the Administrator determines that the Indian Tribe has the capability to carry out any or all of those response actions in accordance with the criteria and priorities established pursuant to section 105(a)(8) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9605(a)(8)).

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

(5) LIMITATIONS.—A grant under this subsection shall be governed by the rules, procedures, and limitations described in section 117(e)(2) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9617(e)(2)), except that—

(A) ''Administrator of the Environmental Protection Agency'' shall be substituted for ''President'' each place it appears in that section; and

(B) in the first sentence of that section, ''under section 405 of the ADVANCE Act of 2023'' shall be substituted for ''under this subsection''.

(f) STATUTE OF LIMITATIONS.—If a remedial action described in subsection (c)(2) is scheduled at an eligible non-NPL site, no action may be commenced for damages (as defined in section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601)) with respect to that eligible non-

NPL site unless the action is commenced within the timeframe provided for such actions with respect to facilities on the National Priorities List in the first sentence of the matter following subparagraph (B) of section 113(g)(1) of that Act (42 U.S.C. 9613(g)(1)).

(g) COORDINATION.—The Administrator shall coordinate with the Indian Tribe on whose land the applicable site is located in—

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

(2) carrying out those response actions.

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

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

(b) AGENCY COORDINATION.—Not later than 180 days after the date of enactment of this Act, the Commission and the Secretary of Energy shall enter into a memorandum of understanding—

(1) to share technical expertise and knowledge through—

(A) enabling the testing and demonstration of accident tolerant fuels for existing commercial nuclear reactors and advanced nuclear reactor fuel concepts to be proposed and funded, in whole or in part, by the private sector;

(B) operating a database to store and share data and knowledge relevant to nuclear science and engineering between Federal agencies and the private sector;

(C) leveraging expertise with respect to safety analysis and research relating to advanced nuclear fuel; and

(D) enabling technical staff to actively observe and learn about technologies, with an emphasis on identification of additional information needed with respect to advanced nuclear fuel; and

(2) to ensure that—

(A) the Department of Energy has sufficient technical expertise to support the timely research, development, demonstration, and commercial application of advanced nuclear fuel;

(B) the Commission has sufficient technical expertise to support the evaluation of applications for licenses, permits, and design cer-

tifications and other requests for regulatory approval for advanced nuclear fuel;

(C)(i) the Department of Energy maintains and develops the facilities necessary to enable the timely research, development, demonstration, and commercial application by the civilian nuclear industry of advanced nuclear fuel; and

(ii) the Commission has access to the facilities described in clause (i), as needed; and

(D) the Commission consults, as appropriate, with the modeling and simulation experts at the Office of Nuclear Energy of the Department of Energy, at the National Laboratories, and within industry fuel vendor teams in cooperative agreements with the Department of Energy to leverage physics-based computer modeling and simulation capabilities.

(c) REPORT.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Commission shall submit to the appropriate committees of Congress a report describing the efforts of the Commission under subsection (a), including—

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

(i) accident tolerant fuel;

(ii) ceramic cladding materials;

(iii) fuels containing silicon carbide;

(iv) high-assay, low-enriched uranium fuels;

(v) molten-salt based liquid fuels;

(vi) fuels derived from spent nuclear fuel or depleted uranium; and

(vii) other related fuel concepts, as determined by the Commission;

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

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

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

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

(A) the Secretary of Energy;

(B) National Laboratories;

(C) the nuclear energy industry;

(D) technology developers;

(E) nongovernmental organizations; and

(F) other public stakeholders.

TITLE V—IMPROVING COMMISSION EFFICIENCY

SEC. 501. COMMISSION WORKFORCE.

(a) DEFINITION OF CHAIRMAN.—In this section, the term ''Chairman'' means the Chairman of the Commission.

(b) APPOINTMENT AUTHORITY.—

(1) IN GENERAL.—Notwithstanding section 161 d. of the Atomic Energy Act of 1954 (42 U.S.C. 2201(d)), any provision of Reorganization Plan No. 1 of 1980 (94 Stat. 3585; 5 U.S.C. app.) governing appointments, and any provision of title 5, United States Code, governing appointments and General Schedule classification and pay rates, the Chairman may appoint persons to the positions described in paragraph (2), subject to the limitation described in paragraph (3), without regard to the civil service laws.

(2) POSITIONS DESCRIBED.—The positions referred to in paragraph (1) are—

(A) positions with highly specialized scientific, engineering, and technical competencies to address a critical need for the Commission, including—

(i) health physicist;

(ii) reactor operations engineer;

(iii) human factors analyst or engineer;

(iv) risk and reliability analyst or engineer;

(v) licensing project manager;

(vi) reactor engineer for severe accidents;

(vii) geotechnical engineer;

(viii) structural engineer;

(ix) reactor systems engineer;

(x) reactor engineer;

(xi) radiation scientist; and

(xii) electronics engineer; or

(B) positions to be filled by exceptionally well-qualified individuals that the Commission determines are necessary to fulfill the mission of the Commission.

(3) LIMITATION.—The Chairman may appoint persons to not more than—

(A) 90 positions described in paragraph (2)(A); and

(B) 90 positions described in paragraph (2)(B).

(4) HIRING BONUS.—The Commission may pay any employee appointed under paragraph (1) a 1-time hiring bonus in an amount not to exceed the least of—

(A) $25,000;

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

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

(5) APPLICATION OF MERIT SYSTEM PRINCIPLES.—To the maximum extent practicable, the Chairman shall appoint persons under paragraph (1) to the positions described in paragraph (2) in accordance with the merit system principles set forth in section 2301 of title 5, United States Code.

(c) COMPENSATION AUTHORITY.—

(1) IN GENERAL.—Notwithstanding section 161 d. of the Atomic Energy Act of 1954 (42 U.S.C. 2201(d)) and chapter 51, and subchapter III of chapter 53, of title 5, United States Code, the

Chairman may fix the rate of basic pay for the positions of individuals described in paragraph (2), subject to the limitation described in paragraph (3), in accordance with this subsection.

(2) INDIVIDUALS DESCRIBED.—The individuals referred to in paragraph (1) are—

(A) individuals with highly specialized scientific, engineering, and technical competencies to address a critical need for the Commission, including individuals with expertise in—

(i) health physics;

(ii) reactor operations engineering;

(iii) human factors analysis or engineering;

(iv) risk and reliability analysis or engineering;

(v) licensing project management;

(vi) reactor engineering for severe accidents;

(vii) geotechnical engineering;

(viii) structural engineering;

(ix) reactor systems engineering;

(x) reactor engineering;

(xi) radiation science; and

(xii) electronics engineering; or

(B) exceptionally well-qualified individuals that the Commission determines are necessary to fulfill the mission of the Commission.

(3) LIMITATION.—

(A) IN GENERAL.—Except as provided in subparagraph (B), the annual rate of basic pay for an individual described in paragraph (2) may not exceed the per annum rate of salary payable for level III of the Executive Schedule under section 5314 of title 5, United States Code, without regard to the civil service laws.

(B) CERTAIN POSITIONS.—The Chairman may set the annual rate of basic pay for an individual described in paragraph (2) for not more than—

(i) 90 persons appointed to positions described in paragraph (2)(A); and

(ii) 90 persons appointed to positions described in paragraph (2)(B).

(d) NO DELEGATION.—The Chairman may not delegate the authority provided by subsection (b) or (c).

(e) ANNUAL SOLICITATION FOR NUCLEAR REGULATOR APPRENTICESHIP NETWORK APPLICATIONS.—The Chairman, on an annual basis, shall solicit applications for the Nuclear Regulator Apprenticeship Network.

(f) REPORT.—The Chairman shall include in the annual budget justification of the Commission information that describes—

(1) the total number of and the positions of the persons appointed under the authority provided by subsection (b);

(2) the total number of and the positions of the persons paid at the rate determined under the authority provided by subsection (c);

(3) how the authority provided by subsections (b) and (c) is being used, and has been used during the previous fiscal year, to address the hiring and retention needs of the Commission with respect to the positions described in those subsections to which that authority is applicable; and

(4) if the authority provided by subsections (b) and (c) is not being used, or has not been used, the reasons, including a justification, for not using that authority.

SEC. 502. COMMISSION CORPORATE SUPPORT FUNDING.

(a) REPORT.—Not later than 180 days after the date of enactment of this Act, the Commission shall submit to the appropriate committees of Congress and make publicly available a report that describes—

(1) the progress on the implementation of section 102(a)(3) of the Nuclear Energy Innovation and Modernization Act (42 U.S.C. 2215(a)(3)); and

(2) whether the Commission is meeting and is expected to meet the total budget authority caps required for corporate support under that section.

(b) LIMITATION ON CORPORATE SUPPORT COSTS.—Section 102(a)(3) of the Nuclear Energy Innovation and Modernization Act (42 U.S.C. 2215(a)(3)) is amended by striking subparagraphs (B) and (C) and inserting the following:

''(B) 30 percent for fiscal year 2024 and each fiscal year thereafter.''.

(c) CORPORATE SUPPORT COSTS CLARIFICATION.—Paragraph (9) of section 3 of the Nuclear Energy Innovation and Modernization Act (42 U.S.C. 2215 note; Public Law 115–439) (as redesignated by section 201(a)(1)) is amended—

(1) by striking ''The term'' and inserting the following:

''(A) IN GENERAL.—The term''; and

(2) by adding at the end the following:

''(B) EXCLUSIONS.—The term 'corporate support costs' does not include—

''(i) costs for rent and utilities relating to any and all space in the Three White Flint North building that is not occupied by the Commission; or

''(ii) costs for salaries, travel, and other support for the Office of the Commission.''.

SEC. 503. PERFORMANCE AND REPORTING UPDATE.

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

(1) in paragraph (3)—

(A) in the paragraph heading, by striking ''180'' and inserting ''90''; and

(B) by striking ''180'' and inserting ''90''; and

(2) by adding at the end the following:

''(4) PERIODIC UPDATES TO METRICS AND SCHEDULES.—

''(A) REVIEW AND ASSESSMENT.—Not less frequently than once every 3 years, the Commission shall review and assess, based on the licensing and regulatory activities of the Commission, the performance metrics and milestone schedules established under paragraph (1).

''(B) REVISIONS.—After each review and assessment under subparagraph (A), the Commission shall revise and improve, as appropriate, the performance metrics and milestone schedules described in that subparagraph to provide the most efficient metrics and schedules reasonably achievable.''.

TITLE VI—MISCELLANEOUS

SEC. 601. NUCLEAR CLOSURE COMMUNITIES.

(a) DEFINITIONS.—In this section:

(1) COMMUNITY ADVISORY BOARD.—The term ''community advisory board'' means a community committee or other advisory organization that aims to foster communication and information exchange between a licensee planning for and involved in decommissioning activities and members of the community that decommissioning activities may affect.

(2) DECOMMISSION.—The term ''decommission'' has the meaning given the term in section 50.2 of title 10, Code of Federal Regulations (or successor regulations).

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

(4) LICENSEE.—The term ''licensee'' has the meaning given the term in section 50.2 of title 10, Code of Federal Regulations (or successor regulations).

(5) NUCLEAR CLOSURE COMMUNITY.—The term ''nuclear closure community'' means a unit of local government, including a county, city, town, village, school district, or special district, that has been impacted, or reasonably demonstrates to the satisfaction of the Secretary that it will be impacted, by a nuclear power plant licensed by the Commission that—

(A) is not co-located with an operating nuclear power plant;

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

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

(i) has ceased operations; or

(ii) has provided a written notification to the Commission that it will cease operations.

(6) SECRETARY.—The term ''Secretary'' means the Secretary of Commerce, acting through the As-

sistant Secretary of Commerce for Economic Development.

(b) ESTABLISHMENT.—Not later than 180 days after the date of enactment of this Act, the Secretary shall establish a grant program to provide grants to eligible recipients—

(1) to assist with economic development in nuclear closure communities; and

(2) to fund community advisory boards in nuclear closure communities.

(c) REQUIREMENT.—In carrying out this section, to the maximum extent practicable, the Secretary shall implement the recommendations described in the report submitted to Congress under section 108 of the Nuclear Energy Innovation and Modernization Act (Public Law 115–439; 132 Stat. 5577) entitled ''Best Practices for Establishment and Operation of Local Community Advisory Boards Associated with Decommissioning Activities at Nuclear Power Plants''.

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

(e) AUTHORIZATION OF APPROPRIATIONS.—

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

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

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

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

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

SEC. 602. TECHNICAL CORRECTION.

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

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

''(3) LIMITATION ON UTILIZATION FACILITIES.—The Commission may issue a license under this section for a utilization facility useful in the conduct of research and development activities of the types specified in section 31 if—

''(A) not more than 75 percent of the annual costs to the licensee of owning and operating the facility are devoted to the sale, other than for research and development or education and training, of—

''(i) nonenergy services;

''(ii) energy; or

''(iii) a combination of nonenergy services and energy; and

''(B) not more than 50 percent of the annual costs to the licensee of owning and operating the facility are devoted to the sale of energy.'';

(2) in the second sentence, by striking ''The Commission'' and inserting the following:

''(2) REGULATION.—The Commission''; and

(3) by striking ''c. The Commission'' and inserting the following:

''c. RESEARCH AND DEVELOPMENT ACTIVITIES.—

''(1) IN GENERAL.—Subject to paragraphs (2) and (3), the Commission''.

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