

Union Calendar No. 573

114TH CONGRESS
2D SESSION**H. R. 4979****[Report No. 114–737, Part I]**

To foster civilian research and development of advanced nuclear energy technologies and enhance the licensing and commercial deployment of such technologies.

IN THE HOUSE OF REPRESENTATIVES

APRIL 18, 2016

Mr. LATTA (for himself and Mr. MCNERNEY) introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committee on Science, Space, and Technology, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

SEPTEMBER 12, 2016

Additional sponsors: Mr. LONG, Mr. GENE GREEN of Texas, Mr. OLSON, Mr. FLORES, Mr. MULLIN, Mr. POMPEO, Mr. MOULTON, Mr. COLLINS of New York, Mr. HARPER, Mr. JOHNSON of Ohio, Mr. TONKO, Mr. HUDSON, Mr. MICHAEL F. DOYLE of Pennsylvania, Mr. GUINTA, Mr. MCKINLEY, Mr. KINZINGER of Illinois, and Mr. FLEISCHMANN

SEPTEMBER 12, 2016

Reported from the Committee on Energy and Commerce with an amendment

[Strike out all after the enacting clause and insert the part printed in *italic*]

SEPTEMBER 12, 2016

The Committee on Science, Space, and Technology discharged; committed to the Committee of the Whole House on the State of the Union and ordered to be printed

[For text of introduced bill, see copy of bill as introduced on April 18, 2016]

A BILL

To foster civilian research and development of advanced nuclear energy technologies and enhance the licensing and commercial deployment of such technologies.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 *This Act may be cited as the “Advanced Nuclear Tech-*
5 *nology Development Act of 2016”.*

6 **SEC. 2. FINDINGS.**

7 *Congress finds the following:*

8 (1) *Nuclear energy generates approximately 20*
9 *percent of the total electricity and approximately 60*
10 *percent of the carbon-free electricity of the United*
11 *States.*

12 (2) *Nuclear power plants operate consistently at*
13 *a 90 percent capacity factor, and provide consumers*
14 *and businesses with reliable and affordable electricity.*

15 (3) *Nuclear power plants generate billions of dol-*
16 *lars in national economic activity through nation-*
17 *wide procurements and provide thousands of Ameri-*
18 *cans with high paying jobs contributing substantially*
19 *to the local economies in communities where they op-*
20 *erate.*

21 (4) *The United States commercial nuclear indus-*
22 *try must continue to lead the international civilian*
23 *nuclear marketplace, because it is one of our most*
24 *powerful national security tools, guaranteeing the*

1 *safe, secure, and exclusively peaceful use of nuclear*
2 *energy.*

3 *(5) Maintaining the Nation’s nuclear fleet of*
4 *commercial light water reactors and expanding the*
5 *use of new advanced reactor designs would support*
6 *continued production of reliable baseload electricity*
7 *and maintain United States global leadership in nu-*
8 *clear power.*

9 *(6) Nuclear fusion technology also has the poten-*
10 *tial to generate electricity with significantly increased*
11 *safety performance and no radioactive waste.*

12 *(7) The development of advanced reactor designs*
13 *would benefit from a performance-based, risk-in-*
14 *formed, efficient, and cost-effective regulatory frame-*
15 *work with defined milestones and the opportunity for*
16 *applicants to demonstrate progress through Nuclear*
17 *Regulatory Commission approval.*

18 **SEC. 3. DEFINITIONS.**

19 *In this Act:*

20 *(1) ADVANCED REACTOR.—The term “advanced*
21 *reactor” means a nuclear reactor with significant de-*
22 *sign improvements over the most recent generation of*
23 *nuclear reactors. Such improvements may include in-*
24 *herent safety features, lower waste yields, greater fuel*

1 *utilization, superior reliability, resistance to pro-*
2 *liferation, and increased thermal efficiency.*

3 (2) *DEPARTMENT.—The term “Department”*
4 *means the Department of Energy.*

5 (3) *LICENSING.—The term “licensing” means*
6 *NRC activities related to reviewing applications for*
7 *licenses, permits, and design certifications, and re-*
8 *quests for any other regulatory approval for nuclear*
9 *reactors within the responsibilities of the NRC under*
10 *the Atomic Energy Act of 1954.*

11 (4) *NATIONAL LABORATORY.—The term “Na-*
12 *tional Laboratory” has the meaning given that term*
13 *in section 2 of the Energy Policy Act of 2005 (42*
14 *U.S.C. 15801).*

15 (5) *NRC.—The term “NRC” means the Nuclear*
16 *Regulatory Commission.*

17 (6) *SECRETARY.—The term “Secretary” means*
18 *the Secretary of Energy.*

19 **SEC. 4. AGENCY COORDINATION.**

20 *The NRC and the Department shall enter into the a*
21 *memorandum of understanding regarding the following top-*
22 *ics:*

23 (1) *TECHNICAL EXPERTISE.—Ensuring that the*
24 *Department has sufficient technical expertise to sup-*
25 *port the civilian nuclear industry’s timely develop-*

1 *ment and commercial deployment of safe, innovative*
2 *advanced reactor technology and the NRC has suffi-*
3 *cient technical expertise to support the evaluation of*
4 *applications for licenses, permits, and design certifi-*
5 *cations, and other requests for regulatory approval for*
6 *advanced reactors.*

7 (2) *MODELING AND SIMULATION.*—*The use of*
8 *computers and software codes to calculate the behavior*
9 *and performance of advanced reactors based on math-*
10 *ematical models of their physical behavior.*

11 (3) *FACILITIES.*—*Ensuring that the Department*
12 *maintains and develops the facilities to support the*
13 *civilian nuclear industry's timely development and*
14 *commercial deployment of safe, innovative reactor*
15 *technology and ensuring that the NRC has access to*
16 *such facilities, as needed.*

17 **SEC. 5. REPORTING TO CONGRESS.**

18 *Not later than 180 days after the date of enactment*
19 *of this Act, the Secretary shall transmit to the Committee*
20 *on Energy and Commerce of the House of Representatives*
21 *and the Committee on Energy and Natural Resources of*
22 *the Senate a report that evaluates the status of activities*
23 *intended to facilitate the testing and demonstration of ad-*
24 *vanced reactors on Department land and facilities and the*

1 *potential for the Department to use testing and demonstra-*
2 *tion on private land.*

3 **SEC. 6. ADVANCED REACTOR REGULATORY FRAMEWORK.**

4 *(a) PLAN REQUIRED.—Not later than 1 year after the*
5 *date of enactment of this Act, the NRC shall transmit to*
6 *the Committee on Energy and Commerce of the House of*
7 *Representatives and the Committee on Environment and*
8 *Public Works of the Senate a plan for developing an effi-*
9 *cient, risk-informed, technology-neutral framework for ad-*
10 *vanced reactor licensing. The plan shall evaluate the fol-*
11 *lowing subjects, consistent with the NRC’s role in protecting*
12 *public health and safety and common defense and security:*

13 *(1) The unique aspects of advanced reactor li-*
14 *censing and any associated legal, regulatory, and pol-*
15 *icy issues the NRC will need to address to develop a*
16 *framework for licensing advanced reactors.*

17 *(2) Options for licensing advanced reactors*
18 *under existing NRC regulations in title 10 of the*
19 *Code of Federal Regulations, a proposed new regu-*
20 *latory framework, or a combination of these ap-*
21 *proaches.*

22 *(3) Options to expedite and streamline the li-*
23 *censing of advanced reactors, including opportunities*
24 *to minimize the time from application submittal to*
25 *final NRC licensing decision and minimize the delays*

1 *that may result from any necessary amendments or*
2 *supplements to applications.*

3 *(4) Options to expand the incorporation of con-*
4 *sensus-based codes and standards into the advanced*
5 *reactor regulatory framework to minimize time to*
6 *completion and provide flexibility in implementation.*

7 *(5) Options to make the advanced reactor licens-*
8 *ing framework more predictable. This evaluation*
9 *should consider opportunities to improve the process*
10 *by which application review milestones are estab-*
11 *lished and maintained.*

12 *(6) Options to allow applicants to use phased re-*
13 *view processes under which the NRC issues approvals*
14 *that do not require the NRC to re-review previously*
15 *approved information. This evaluation shall consider*
16 *the NRC's ability to review and conditionally ap-*
17 *prove partial applications, early design information,*
18 *and submittals that contain design criteria and proc-*
19 *esses to be used to develop information to support a*
20 *later phase of the design review.*

21 *(7) The extent to which NRC action or modifica-*
22 *tion of policy is needed to implement any part of the*
23 *plan required by this subsection.*

1 (8) *The role of licensing advanced reactors with-*
2 *in NRC long-term strategic resource planning, staff-*
3 *ing, and funding levels.*

4 (9) *Options to provide cost-sharing financial*
5 *structures for license applicants in a phased licensing*
6 *process.*

7 (b) *COORDINATION AND STAKEHOLDER INPUT RE-*
8 *QUIRED.—In developing the plan required by subsection*
9 *(a), the NRC shall seek input from the Department, the nu-*
10 *clear industry, and other public stakeholders.*

11 (c) *COST AND SCHEDULE ESTIMATE.—The plan re-*
12 *quired by subsection (a) shall include proposed cost esti-*
13 *mates, budgets, and specific milestones for implementing the*
14 *advanced reactor regulatory framework by September 30,*
15 *2019.*

16 (d) *DESIGN CERTIFICATION STATUS.—In the NRC’s*
17 *first budget request after the acceptance of any design cer-*
18 *tification application for an advanced nuclear reactor, and*
19 *annually thereafter, the NRC shall provide the status of per-*
20 *formance metrics and milestone schedules. The budget re-*
21 *quest shall include a plan to correct or recover from any*
22 *milestone schedule delays, including delays because of*
23 *NRC’s inability to commit resources for its review of the*
24 *design certification applications.*

1 **SEC. 7. USER FEES AND ANNUAL CHARGES.**

2 *Section 6101(c)(2)(A) of the Omnibus Budget Rec-*
3 *onciliation Act of 1990 (42 U.S.C. 2214(c)(2)(A)) is amend-*
4 *ed—*

5 *(1) by striking “and” at the end of clause (iii);*

6 *(2) by striking the period at the end of clause*

7 *(iv) and inserting “; and”; and*

8 *(3) by adding at the end the following:*

9 *“(v) for fiscal years ending before Octo-*
10 *ber 1, 2020, amounts appropriated to the*
11 *Commission for activities related to the de-*
12 *velopment of regulatory infrastructure for*
13 *advanced nuclear reactor technologies.”.*

14 **SEC. 8. AGREEMENTS FOR PRIVATELY FUNDED REACTORS.**

15 *The Department shall not enter into a new agreement*
16 *with any private entity to host a privately funded reactor*
17 *at a Department-owned site that would affect the Federal*
18 *Government’s liability—*

19 *(1) with respect to the disposal of spent nuclear*

20 *fuel or high-level radioactive waste, as defined by sec-*

21 *tion 2 of the Nuclear Waste Policy Act of 1982 (42*

22 *U.S.C. 10101), until the NRC has published a final*

23 *decision on an application for construction for a re-*

24 *pository under section 114(d) of the Nuclear Waste*

25 *Policy Act (42 U.S.C. 10168(d)); and*

1 (2) *with respect to operation and decommis-*
2 *sioning—*

3 (A) *unless such private entity has obtained*
4 *and is maintaining financial protection of such*
5 *type and in such amounts as the NRC shall re-*
6 *quire to cover public liability claims pursuant to*
7 *section 170 of the Atomic Energy Act; and*

8 (B) *until such private entity has provided*
9 *reasonable assurance that funds will be available*
10 *for the decommissioning process pursuant to*
11 *part 50 of title 10, Code of Federal Regulations.*

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