

114TH CONGRESS
2D SESSION

H. R. 4979

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

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
5 Technology Development Act of 2016”.

6 **SEC. 2. FINDINGS.**

7 Congress finds the following:

1 (1) Nuclear energy generates approximately 20
2 percent of the total electricity and approximately 60
3 percent of the carbon-free electricity of the United
4 States.

5 (2) Nuclear power plants operate consistently at
6 a 90 percent capacity factor, and provide consumers
7 and businesses with reliable and affordable elec-
8 tricity.

9 (3) Nuclear power plants generate billions of
10 dollars in national economic activity through nation-
11 wide procurements and provide thousands of Ameri-
12 cans with high paying jobs contributing substantially
13 to the local economies in communities where they
14 operate.

15 (4) The United States commercial nuclear in-
16 dustry must continue to lead the international civil-
17 ian nuclear marketplace, because it is one of our
18 most powerful national security tools, guaranteeing
19 the safe, secure, and exclusively peaceful use of nu-
20 clear energy.

21 (5) Maintaining the Nation's nuclear fleet of
22 commercial light water reactors and expanding the
23 use of new advanced reactor designs would support
24 continued production of reliable baseload electricity

1 and maintain United States global leadership in nu-
2 clear power.

3 (6) The development of advanced reactor de-
4 signs would benefit from a performance-based, risk-
5 informed, efficient, and cost-effective regulatory
6 framework with defined milestones and the oppor-
7 tunity for applicants to demonstrate progress
8 through Nuclear Regulatory Commission approval.

9 **SEC. 3. DEFINITIONS.**

10 In this Act:

11 (1) **ADVANCED REACTOR.**—The term “advanced
12 reactor” means a nuclear fission reactor with signifi-
13 cant design improvements over the most recent gen-
14 eration of nuclear reactors. Such improvements may
15 include inherent safety features, lower waste yields,
16 greater fuel utilization, superior reliability, resist-
17 ance to proliferation, and increased thermal effi-
18 ciency.

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

21 (3) **LICENSING.**—The term “licensing” means
22 NRC activities related to reviewing applications for
23 licenses, permits, and design certifications, and re-
24 quests for any other regulatory approval for nuclear

1 reactors within the responsibilities of the NRC under
2 the Atomic Energy Act of 1954.

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

7 (5) NRC.—The term “NRC” means the Nu-
8 clear Regulatory Commission.

9 (6) SECRETARY.—The term “Secretary” means
10 the Secretary of Energy.

11 **SEC. 4. AGENCY COORDINATION.**

12 The NRC and the Department shall enter into the
13 a memorandum of understanding regarding the following
14 topics:

15 (1) TECHNICAL EXPERTISE.—Ensuring that
16 the Department has sufficient technical expertise to
17 support the civilian nuclear industry’s timely devel-
18 opment and commercial deployment of safe, innova-
19 tive advanced reactor technology and the NRC has
20 sufficient technical expertise to support the evalua-
21 tion of applications for licenses, permits, and design
22 certifications, and other requests for regulatory ap-
23 proval for advanced reactors.

24 (2) MODELING AND SIMULATION.—The use of
25 computers and software codes to calculate the behav-

1 ior and performance of advanced reactors based on
2 mathematical models of their physical behavior.

3 (3) **FACILITIES.**—Ensuring that the Depart-
4 ment maintains and develops the facilities to support
5 the civilian nuclear industry’s timely development
6 and commercial deployment of safe, innovative reac-
7 tor technology and ensuring that the NRC has ac-
8 cess to such facilities, as needed.

9 **SEC. 5. REPORTING TO CONGRESS.**

10 Not later than 180 days after the date of enactment
11 of this Act, the Secretary shall transmit to the Committee
12 on Energy and Commerce of the House of Representatives
13 and the Committee on Energy and Natural Resources of
14 the Senate a report that evaluates the status of activities
15 intended to facilitate the testing and demonstration of ad-
16 vanced reactors on Department land and facilities and the
17 potential for the Department to use testing and dem-
18 onstration on private land.

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

20 (a) **PLAN REQUIRED.**—Not later than 270 days after
21 the date of enactment of this Act, the NRC shall transmit
22 to the Committee on Energy and Commerce of the House
23 of Representatives and the Committee on Environment
24 and Public Works of the Senate a plan for developing an
25 efficient, risk-informed, technology-neutral framework for

1 advanced reactor licensing. The plan shall evaluate the fol-
2 lowing subjects, consistent with the NRC's role in pro-
3 tecting public health and safety and common defense and
4 security:

5 (1) The unique aspects of advanced reactor li-
6 censing and any associated legal, regulatory, and
7 policy issues the NRC will need to address to de-
8 velop a framework for licensing advanced reactors.

9 (2) Options for licensing advanced reactors
10 under existing NRC regulations in title 10 of the
11 Code of Federal Regulations, a proposed new regu-
12 latory framework, or a combination of these ap-
13 proaches.

14 (3) Options to expedite and streamline the li-
15 censing of advanced reactors, including opportunities
16 to minimize the time from application submittal to
17 final NRC approval and minimize the delays that
18 may result from any necessary amendments or sup-
19 plements to applications.

20 (4) Options to expand the incorporation of con-
21 sensus-based codes and standards into the advanced
22 reactor regulatory framework to minimize time to
23 completion and provide flexibility in implementation.

24 (5) Options to make the advanced reactor li-
25 censing framework more predictable. This evaluation

1 should consider opportunities to improve the process
2 by which application review milestones are estab-
3 lished and maintained.

4 (6) Options to allow applicants to use phased
5 review processes under which the NRC issues ap-
6 provals that do not require the NRC to re-review
7 previously approved information. This evaluation
8 shall consider the NRC's ability to review and condi-
9 tionally approve partial applications, early design in-
10 formation, and submittals that contain design cri-
11 teria and processes to be used to develop information
12 to support a later phase of the design review.

13 (7) The extent to which NRC action or modi-
14 fication of policy is needed to implement any part of
15 the plan required by this subsection.

16 (8) The role of licensing advanced reactors
17 within NRC long-term strategic resource planning,
18 staffing, and funding levels.

19 (b) COORDINATION AND STAKEHOLDER INPUT RE-
20 QUIRED.—In developing the plan required by subsection
21 (a), the NRC shall seek input from the Department, the
22 nuclear industry, and other public stakeholders.

23 (c) COST AND SCHEDULE ESTIMATE.—The plan re-
24 quired by subsection (a) shall include proposed cost esti-

1 mates, budgets, and specific milestones for implementing
2 the advanced reactor regulatory framework by 2019.

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

4 Section 6101(e)(2)(A) of the Omnibus Budget Rec-
5 onciliation Act of 1990 (42 U.S.C. 2214(e)(2)(A)) is
6 amended—

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

8 (2) by striking the period at the end of clause
9 (iv) and inserting “; and”; and

10 (3) by adding at the end the following:

11 “(v) for fiscal years ending before Oc-
12 tober 1, 2020, amounts appropriated to
13 the Commission for activities related to the
14 development of regulatory infrastructure
15 for advanced nuclear reactor tech-
16 nologies.”.

○