



MEMORANDUM

July 14, 2023

TO: Members of the Subcommittee on Energy, Climate, and Grid Security

FROM: Committee Majority Staff

RE: Hearing entitled “American Nuclear Energy Expansion: Updating Policies for Efficient, Predictable Licensing and Deployment”

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## I. INTRODUCTION

On Tuesday, July 18, 2023, at 10:00 a.m. in 2123 Rayburn House Office Building, the Subcommittee on Energy, Climate, and Grid Security will hold a legislative hearing entitled “American Nuclear Energy Expansion: Updating Policies for Efficient, Predictable Licensing and Deployment.” The hearing will review the following legislation:

- H.R. \_\_\_, NRC Mission Alignment Act
- H.R. \_\_\_, Modernize Nuclear Reactor Environmental Reviews Act
- H.R. \_\_\_, Nuclear Licensing Efficiency Act
- H.R. \_\_\_, Nuclear Advisory Committee Reform Act
- H.R. \_\_\_, Efficient Nuclear Licensing Hearings Act
- H.R. \_\_\_, Advanced Reactor Fee Reduction Act
- H.R. \_\_\_, Advanced Nuclear Reactor Prize Act
- H.R. \_\_\_, Advancing Nuclear Regulatory Oversight Act
- H.R. \_\_\_, Nuclear for Brownfields Site Preparation Act
- H.R. 995, Global Nuclear Energy Assessment and Cooperation Act
- H.R. \_\_\_, Strengthening American Nuclear Competitiveness Act
- H.R. \_\_\_, Advanced Nuclear Deployment Act
- H.R. \_\_\_, Nuclear Fuel Security Act of 2023
- H.R. 4528, Strengthening the NRC Workforce Act of 2023
- H.R. 4530, NRC Office of Public Engagement and Participation Act of 2023

## II. WITNESSES

### Panel One:

- **Dan Dorman**, Executive Director of Operations, U.S. Nuclear Regulatory Commission
- **Michael Goff**, Principal Deputy Assistant Secretary, Office of Nuclear Energy, Department of Energy

Panel Two:

- **Maria Korsnick**, President and CEO, Nuclear Energy Institute
- **Jeffrey S. Merrifield**, Chairman, Advanced Nuclear Working Group, U.S. Nuclear Industry Council
- **Ted Nordhaus**, Founder and Executive Director, The Breakthrough Institute
- **Jackie Toth**, Deputy Director, Good Energy Collective

### III. BACKGROUND

Nuclear energy plays a critical role in American energy security, reliable generation of electric power, and American international leadership. In 1946, Congress passed the Atomic Energy Act of 1946 to establish the Atomic Energy Commission (AEC). The AEC was first responsible for nuclear regulation and licensing. Congress fundamentally revised the Atomic Energy Act to remove barriers to the peaceful, civilian application of nuclear technology. [The Atomic Energy Act of 1954](#) established the policy that “the development, use, and control of atomic energy shall be directed so as to promote world peace, improve the general welfare, increase the standard of living, and strengthen free competition and private enterprise.”<sup>1</sup>

The Atomic Energy Act’s many broad provisions govern all aspects of nuclear technology, including the requirement of international agreements for civil nuclear trade, export controls, and regulatory standards of “reasonable assurance.” The reasonable assurance standard remains the foundation of the regulatory requirements on civilian nuclear licensees. The regulatory framework established in the Atomic Energy Act remains the “fundamental U.S. law on both the civilian and military uses of nuclear materials.”<sup>2</sup>

The AEC oversaw the development of the nuclear industry into the 1970s. As a result of the concerns surrounding the ability of the AEC to regulate the same industry it helped create, Congress passed the [Energy Reorganization Act of 1974](#), which abolished the AEC and assigned the regulation and licensing of nuclear energy and nuclear materials to the Nuclear Regulatory Commission (NRC) to ensure the safe use of radioactive materials for beneficial civilian use, while protecting people and the environment.<sup>3</sup> The remaining functions of the AEC relating to the development and control of nuclear technologies for peaceful and military use were assigned to the predecessor agency of what is now the Department of Energy (DOE).

Today, the NRC operates as an independent safety regulator and oversees the commercial nuclear industry pursuant to the Atomic Energy Act, as amended. In keeping with the established policy, the NRC, per its [mission statement](#), “licenses and regulates the Nation’s civilian use of radioactive materials to provide reasonable assurances of adequate protection of public health and safety, to promote the common defense and security, and to protect the environment.”<sup>4</sup>

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<sup>1</sup> 42 USC 2011

<sup>2</sup> <https://www.nrc.gov/about-nrc/governing-laws.html>

<sup>3</sup> <https://www.nrc.gov/about-nrc.html>

<sup>4</sup> Nuclear Regulatory Commission, “About NRC”, <https://www.nrc.gov/about-nrc.html>.

DOE, meanwhile, operates a broad range of nuclear programs pursuant to its statutory responsibilities. In addition to its nuclear weapons and nuclear navy reactor responsibilities, DOE carries out programs to “advance nuclear power as a resource capable of making major contributions in meeting our nation’s energy supply, environmental and energy security needs.”<sup>5</sup> For example, these DOE programs support research and policy for the development of advanced nuclear technologies, nonproliferation and arms control treaty and agreement implementation, oversight of the export of nuclear technologies, the provision of fuels for research reactors, development of a commercial market for advanced fuels, the production of radiological isotopes for medical uses, and the implementation of nuclear waste policies. DOE also represents the U.S. government in international forums, such as the International Atomic Energy Agency (IAEA).

#### IV. LEGISLATION

##### A. H.R. \_\_\_, NRC Mission Alignment Act

This legislation would amend the Energy Reorganization Act of 1974, which established the NRC, to align in statute the mission of the NRC with the policies of the Atomic Energy Act of 1954 (AEA). The legislation would establish that the mission of the NRC is to provide reasonable assurance of adequate protection of public health and safety, promote the common defense and security, protect the environment, and improve the general welfare. The legislation would further require the NRC’s Director of Nuclear Reactor Regulation to establish licensing techniques and guidance to support efficient, timely, and predictable reviews of license applications. (Rep. Duncan is expected to introduce this legislation.)

##### B. H.R. \_\_\_, Modernize Nuclear Reactor Environmental Reviews Act

This legislation would direct the NRC to submit a report and conduct a rulemaking to facilitate efficient, timely environmental reviews of nuclear reactor applications pursuant to the National Environmental Policy Act (NEPA). The report would include a description of actions taken to implement recent amendments to NEPA and to consider additional measures to facilitate timely reviews while meeting the obligations of NEPA, including through use of categorical exclusions, environmental assessments, and generic environmental assessments, as well as process efficiencies to reduce duplicative reviews. The NRC would be required to complete a final rulemaking within three years after enactment that implements identified measures to update its environmental review requirements. (Rep. Weber is expected to introduce this legislation.)

##### C. H.R. \_\_\_, Nuclear Licensing Efficiency Act

This legislation would amend the AEA to establish general timelines for application reviews for nuclear energy facilities, including, to the maximum extent practicable, to complete environmental impact statements within 24 months of application docketing, to complete technical review and issue any safety evaluation report within 42 months of application docketing, and, where there are already licensed nuclear facilities, to use

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<sup>5</sup> Department of Energy, Office of Nuclear Energy. Accessible at: <https://energy.gov/science-innovation/energy-sources/nuclear>

information that was part of the licensing basis for those facilities. The legislation would also amend the Nuclear Energy Innovation and Modernization Act (NEIMA) to require the NRC to review, assess, and revise, as appropriate, licensing performance metrics and milestone schedules required under the NEIMA to provide the most efficient performance metrics and milestone schedules reasonably achievable. The legislation would also amend NEIMA to exclude nuclear fusion reactors from NRC's new regulatory framework for advanced reactors and to provide technical corrections relating to research reactors. (Rep. Allen is expected to introduce this legislation.)

**D. H.R. \_\_\_, Nuclear Advisory Committee Reform Act**

This legislation would amend the AEA to update the role of the Advisory Committee on Reactor Safeguards. The legislation would establish that the Committee would provide advice on license applications, license amendments, and any other matters relating to novel or first-of-a-kind reactor designs, design modifications, or regulatory activities, only upon specific request by the NRC. The legislation would also update term requirements and require a membership that represents a diverse background of technical expertise relevant to the NRC mission. (Rep. Walberg is expected to introduce this legislation.)

**E. H.R. \_\_\_, Efficient Nuclear Licensing Hearings Act**

This legislation would amend the AEA to obviate the need for the NRC to expend resources on unnecessary hearings. It would eliminate the requirement to hold uncontested hearings on applications to the NRC for granting a construction permit, an operating license, or a combined construction and operating license for nuclear facilities. The legislation would also clarify that the NRC may use informal adjudicatory procedures for any hearing the Commission determines appropriate. These provisions would in no way affect the right of persons whose interests are affected from requesting a hearing on specific matters. (Rep. Griffith is expected to introduce this legislation.)

**F. H.R. \_\_\_, Advanced Reactor Fee Reduction Act**

This legislation would amend NEIMA to reduce the hourly rate for fees assessed and collected by NRC from applicants for advanced nuclear reactor licenses. It would reduce the hourly rate, through fiscal year 2029, for fees assessed and collected from entities that have submitted a licensing project plan for preapplication activities for purposes of submitting a future advanced nuclear reactor license application. The legislation would establish that hourly rates for these advanced reactor applicants and "preapplicants" to reflect mission-direct program costs and would provide that the Commission may not assess or collect fees from such entities for costs that are not mission-direct program costs. Such mission indirect and other agency support costs would be excluded from NRC's fee recovery requirements. (Rep. Bucshon is expected to introduce this legislation)

**G. H.R. \_\_\_, Advanced Nuclear Reactor Prize Act**

This legislation would authorize the Secretary of Energy to make targeted awards to cover fees assessed by the NRC and collected from a non-federal entity or the Tennessee Valley Authority (TVA) for the first technologies that are licensed and made operational

in four categories: the first advanced nuclear reactor to use isotopes derived from spent nuclear fuel as fuel for a reactor; the first advanced reactor that is part of an integrated energy system; the first advanced reactor is used for nonelectric application; and the first nuclear reactor licensed under the new technology-inclusive framework required by NEIMA. (Rep. Curtis is expected to introduce this legislation.)

**H. H.R. \_\_\_, Advancing Nuclear Regulatory Oversight Act**

This legislation would direct NRC to submit a report that examines any changes, including temporary changes, NRC made to its regulatory oversight processes or procedures during the Covid-19 pandemic and that explains how NRC will incorporate resulting lessons identified into its oversight processes and procedures to become more efficient. The legislation would also direct the NRC to develop a report, in consultation with federal, industry, and nongovernmental stakeholders, that assesses, and describes what actions the NRC will take to modify, and improve its nuclear reactor oversight and inspections programs to maximize the efficiency of such programs through risk-informed, performance-based procedures, information technology, regular staff training, and other measures. The legislation would also direct the Comptroller General to examine and make recommendations to reduce NRC office and facility costs through reduction or consolidation of offices and related measures, as appropriate. (Rep. Lesko is expected to introduce this legislation.)

**I. H.R. \_\_\_, Nuclear for Brownfields Site Preparation Act**

This legislation would direct the NRC to identify and report on regulations, guidance, or policy necessary to license and oversee nuclear facilities at brownfield sites, including sites with retired fossil fuel facilities. The NRC would be required to consider how existing site infrastructure can be reused and early site permits, plant parameter envelopes, or standardized applications for similar sites may be used for licensing. It would be required to develop and implement strategies, including through rulemaking, to enable and support licensing of nuclear facilities, taking into consideration matters relating to existing emergency planning, environmental data and reviews, decontamination and remediation, community engagement, and historical experience with energy use at the sites. (Rep. Guthrie is expected to introduce this legislation.)

**J. [H.R. 995](#), Global Nuclear Energy Assessment and Cooperation Act**

This legislation would direct the Secretary of Energy to conduct a comprehensive study of the global status of civilian nuclear energy and supply chains and to recommend measures to increase the role of U.S. nuclear energy in strategic energy policy, to remove regulatory barriers to development of U.S. nuclear supply chains, to align nuclear energy with national security objectives and to mitigate foreign competitor's strategic use of civil nuclear for geopolitical purposes. The legislation would require the Secretary to establish a program to promote U.S. safety standards, technology, and expertise through training and partnerships with foreign allies. The legislation would also establish an "International Nuclear Reactor Export and Innovation Branch" within NRC's international programs office to coordinate Commission international nuclear export and innovation activities. The fees for such activity would be excluded from NRC's fee recovery requirements. The legislation would amend the AEC to require NRC denial of licenses to possess or own

nuclear fuel assemblies fabricated by Russia or China owned or controlled entities, if the Secretary of Energy, in consultation with the Secretary of State, determines the possession or ownership poses a threat to national and economic security of the United States. (Rep. Carter and Rep. Peters introduced this legislation on February 14, 2023.)

**K. H.R. \_\_\_, Strengthening American Nuclear Competitiveness Act**

This legislation would require the Secretary of Energy to assess and report, with recommendations, on requirements, policies, and practices that have effects on the civilian nuclear industry in domestic and foreign commerce, and the role of emerging U.S. technologies and practices in future such commerce. The legislation would amend the AEA to authorize the Secretary to develop expedited procedures for review and approval of exports of low-proliferation-risk nuclear technologies to allied countries, and to remove restrictions on investments in U.S. nuclear technology by certain foreign allies and companies incorporated within those allied countries. The legislation would extend section 170 of the AEA, commonly known as the “Price-Anderson Act,” to December 31, 2065, and would require the Comptroller General to study risk-pooling analyses associated with the Act. The legislation also would require the NRC to study and recommend steps for efficient licensing for new, nonelectric uses of nuclear energy and for new manufacturing techniques to build American nuclear reactors. (Rep. Johnson is expected to introduce this legislation.)

**L. H.R. \_\_\_, Advanced Nuclear Deployment Act**

This legislation would amend NEIMA to authorize funding to the NRC to support preapplication activities and early site permit reviews for advanced reactors that will be located on either DOE or Department of Defense sites. The activities would be excluded from the NRC’s fee recovery requirements. The legislation would direct the NRC to identify and implement regulatory guidance, or as necessary, issue regulations for licensing issues concerning micro-reactors, and to establish schedules for review activities applicable to micro-reactor facilities. The legislation would require the NRC to establish procedures to ensure licensing decisions to construct and operate new reactors using previously licensed designs, and sited on, or adjacent to, existing sites to be made within 25 months. The legislation would authorize the Secretary of Energy to enter into power purchase agreements of up to 40 years for eligible nuclear reactors, with a priority for advanced reactors that provide power to high-value assets or to increase energy security in remote locations. (Rep. Hudson is expected to introduce this legislation.)

**M. H.R. \_\_\_, Nuclear Fuel Security Act of 2023**

This legislation would provide authorizations for the Secretary of Energy to increase domestic production of high-assay, low-enriched uranium (HALEU) by certain annual quantities and to support availability of supplies of domestically produced, converted, and enriched uranium for existing reactors, as necessary, particularly to respond to supply disruptions. The legislation would establish a Nuclear Fuel Security Program, update the American Assured Fuel Supply Program, and establish a HALEU for Advanced Reactor Demonstrations Program, through which the Secretary will support domestic fuel capacity for the commercial market and for DOE demonstration projects. This text is an update of H.R. 1086. (Rep. Latta is expected to introduce this legislation.)

**N. H.R. 4528, Strengthening the NRC Workforce Act of 2023**

This legislation would amend the AEA to authorize an exception to the Office of Personnel Management's (OPM's) competitive hiring process for the NRC to recruit and directly appoint individuals, provided the NRC Chairman certifies a severe shortage of candidates or a critical hiring need to carry out NRC responsibilities. The legislation also would authorize, under certain circumstances, an exception to Federal equal compensation laws for the NRC to increase the compensation of employees. Additionally, the legislation would allow NRC to obtain the services of outside experts and consultants and provide bonuses of up to \$25,000 per employee. (Rep. DeGette introduced this legislation on July 11, 2023.)

**O. H.R. 4530, NRC Office of Public Engagement and Participation Act of 2023**

This legislation would establish a new and independent office within the NRC to be known as the Office of Public Engagement and Participation. The office would support public participation in proceedings before the NRC, advocate for the public interest within the jurisdiction of the NRC, provide legal and technical guidance and assistance to the public, and coordinate public assistance. The legislation would authorize the appointment of a director who may serve for two terms, each of five-years, at the maximum rate of pay for a senior executive in the Senior Executive Service. The legislation also allows NRC to provide compensation for attorney's fees, expert witness fees, and other costs of participating in proceedings. (Rep. Levin introduced this legislation on July 11, 2023.)

**V. STAFF CONTACTS**

If you have any questions regarding this hearing, please contact Peter Spencer or Mary Martin of the Committee staff at (202) 225-3641.