



The Urgency of NRC Reform

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There is growing recognition that new nuclear energy is essential to achieving our energy security and climate goals, and that Nuclear Regulatory Commission (NRC) reform is needed to enable new nuclear energy. Our mission at the Nuclear Innovation Alliance (NIA) is to help create the conditions necessary for the development and deployment of new nuclear energy technologies, including reform of the NRC. Two things are required to make this happen: (1) a shared sense of urgency and (2) a shared willingness to roll up our sleeves and dig deeply into removing the operational and organizational barriers that are getting in the way of meeting this moment.

The NRC's job is to license new reactors and oversee existing ones to ensure the public can safely benefit from nuclear energy. The NRC boasts a dedicated, highly technical staff and a legacy of overseeing a remarkably safe nuclear industry. As an independent, bipartisan Commission, the NRC has a long-standing history of remaining mission-focused and insulated from political pressure, strengthening its technical credibility, international respect and public trust.

But it needs to continue to improve its efficiency. Historically, public debate around the NRC has been between anti-nuclear voices advocating for slower licensing or fewer nuclear power plants, and industry advocating for streamlined regulations and more nuclear power plants. NIA and others are injecting a different message into this conversation: that there is a public interest in effective and efficient licensing because there is a public interest in achieving energy security while reducing carbon emissions as quickly as possible.

It is not only possible but essential to maintain the NRC's independence, credibility, and technical capacity while also making it more efficient. A trusted and competent safety regulator is required to achieve the ambitious nuclear power expansion goals set forth by presidents from both parties and supported by bipartisan majorities in Congress. A bipartisan set of independent commissioners, experienced civil service leaders, and a dedicated, accountable and empowered staff are the conditions for success. Preserving the NRC's independence means ensuring that leadership and staffing decisions are based on competence and performance, and that regulations are written and reviewed solely by technical experts. This is what we must do to sustain the global reputation of U.S. nuclear technology exports and make efficient use of precious time and resources at this critical moment for nuclear power.

NRC licensing efficiency is just one example of a broader challenge for all clean energy, not just nuclear energy. U.S. infrastructure permitting rules implicitly assume that it is okay if it takes years or even decades to build new infrastructure. This premise is no longer acceptable, and, in retrospect, it probably never was just or correct. Ensuring energy security and emission reductions requires that we replace and build new clean energy infrastructure rapidly. Action is required by NRC staff, the Commission, Congress, the nuclear industry, and civil society to reform NRC licensing on three timescales: near-term, medium-term and long-term. (See [Key Recommendations for Reforming U.S. Nuclear Energy Regulation](#)).

In the near term, about a dozen advanced reactor developers are engaging one-on-one with the NRC to obtain approvals under existing rules. While this is challenging because current licensing pathways have been tailored to conventional, large, light water reactors, NRC staff and applicants continue to make progress in licensing of new nuclear technology. Kairos Power and Abilene Christian University were awarded construction permits for their test and research reactors in 2024, and NuScale was awarded Standard Design Approval in May 2025. Although NRC staff and applicants are incorporating lessons learned through ongoing experience, licensing timelines and costs remain uneven – often due to mundane but important practices like disciplined project management and clear communication. Successful early engagements depend on both the NRC and the applicants (See the recommendations in NIA's most recent [licensing efficiency report](#)).

Additionally, stakeholders are working with the NRC to encourage specific reforms. For example, NOV Shepherd Power plans to deploy BWXT microreactors to supply firm power and heat for oil field operations. It has engaged with the NRC to address specific regulatory issues needing reform, including shortening the timeline from site selection to deployment to 180 days. The NRC recently made [policy decisions](#) about fuel loading and testing to enable faster microreactor deployment.

For the medium term, the NRC is in the middle of a multi-year rulemaking on risk-informed, performance-based and technology-inclusive licensing (referred to as "10 CFR Part 53", or more simply "Part 53"). This rulemaking is required under the 2019 Nuclear Energy Innovation and Modernization Act ([NEIMA](#)). As described in [NIA's Part 53 paper](#), the NRC staff's proposed draft rule was flawed but fixable with leadership by the Commission. In March 2024, the Commission stepped up, providing leadership and clear direction to NRC staff. The Commission's vote on the proposed Part 53 rule and the accompanying [Staff Requirements Memorandum](#) instructed the staff to make major changes to improve the draft. The staff produced an updated draft rule in October 2024. NIA submitted [its own public comments](#), as well as a [joint NGO letter](#) and [joint stakeholder comments](#). Effective NRC staff incorporation of public comments will be critical in creating a useful rule for licensing advanced reactors.

The Commission is also making progress on other rulemakings. For example, in 2023, NRC promulgated a risk-informed approach for rightsizing emergency planning zones. The draft rulemaking for a new reactor generic environmental impact statement is before the Commission for final approval. This rulemaking is expected to improve the efficiency of environmental reviews. The Commission recently extended the lifetime of reactor design certifications from 15 to 40 years, applying this extension retroactively to already approved designs. It also finalized the licensing fee reform rule reducing hourly rates for advanced nuclear reactor applicants.

For the long term, we need to re-imagine licensing in a world where the NRC must license dozens, if not hundreds, of reactors per year. Ultimately, this will require streamlined and standardized NRC processes and practices as well as standardized technologies. (See [Enabling High Volume Licensing of Advanced Nuclear Energy](#)).

President Trump recently issued executive order (EO) 14300 on NRC reform. The priorities set forth in this EO align with what industry and advocates have been working on for years, and effective implementation is imperative to achieve the Administration's nuclear energy goals. The NRC is already actively working to streamline its regulations and help enable the rapid deployment of new nuclear reactors through dozens of rulemakings. Leveraging the NRC's ongoing rulemaking efforts and ADVANCE Act initiatives to streamline new reactor licensing is key to effective implementation. Stakeholders are working with NRC throughout this process and are proposing innovative solutions.

There is much Congress can do to reform the NRC through authorization, appropriations, and oversight. Requiring Part 53 rulemaking under NEIMA was an important congressional achievement, but additional off-fee appropriations and oversight are essential to ensure successful completion of the rule, and to ensure the NRC improves the management and organizational issues that stand in the way of efficient licensing. In July 2024, President Biden signed into law the ADVANCE Act, which garnered broad bipartisan and bicameral support and initiates [several useful NRC reforms and rulemakings](#). For example, it improves how the NRC charges fees to applicants, authorizes hiring incentives to address the NRC's workforce issues, and establishes prizes to cover licensing costs for early movers. In response to the enactment of the ADVANCE Act, the NRC promptly organized project teams and launched a public [Implementation Status Dashboard](#). NRC progress on implementing the ADVANCE Act continues to be a key focus area for Congressional oversight and for stakeholders in 2025.

We are seeing bipartisan and bicameral leadership on NRC reform. Senate Environment and Public Works and House Energy and Commerce leadership have demonstrated commitment to NRC reform legislation and oversight. Effective congressional oversight is crucial for holding the NRC accountable and improving its performance.

NIA is pleased to see companies, civil society, NRC staff, Commissioners, and Congress recognizing and communicating the urgency of NRC reform and committing to do the hard work to make it happen. But more is needed. In addition to the useful reforms in the ADVANCE Act, there are many options for Congress to pursue through legislation and oversight. For example, NIA recommends focusing the NRC's Advisory Committee on Reactor Safeguards on reviewing only novel safety issues ([see NIA report](#)) to make the best and most efficient use of their expertise. NIA welcomes the NRC's action to remove the existing blanket requirement for oral hearings in licensing approval processes. NIA would also like Congress to eliminate certain mandatory hearings, as recommended in a recent Idaho National Laboratories report ([see INL report](#)), which waste agency time and resources without benefiting the licensing process.

NIA would like to see the NRC continue to efficiently and effectively implement ADVANCE Act reforms and executive orders. We'd like to see an NRC staff that is both empowered and accountable to effectively and efficiently review license applications. We are heartened by recent progress on NRC reform, and we urge Congress and the Administration to protect the NRC's independence, credibility, and technical capacity to successfully meet this moment.

For more information on NRC Reform, please contact the NIA at info@nuclearinnovationalliance.org.