State of Connecticut

NUCLEAR ENERGY ADVISORY COUNCIL

Connecticut Nuclear Energy Advisory Council
Attn: Jeff Semancik, Radiation Division
CT DEEP
79 Elm St
Hartford, CT 06106

June 12, 2026

Chairman Nieh, and Commissioners Wright, Crowell, Marzano, and Weaver
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

RE: Docket ID NRC-2025-0379

Comments of the Connecticut Nuclear Energy Advisory Council on "Licensing Requirements for Microreactors and Other Reactors With Comparable Risk Profiles" (Proposed 10 CFR Part 57)[1]

Dear Chairman Nieh, and Commissioners Wright, Crowell, Marzano, and Weaver:

The Connecticut Nuclear Energy Advisory Council (the Council), established under Section 16-11a of the Connecticut General Statutes, appreciates the opportunity to comment on the U.S. Nuclear Regulatory Commission's (NRC's) proposed rule for licensing microreactors and reactors with comparable risk profiles under 10 CFR Part 57. The Council's statutory responsibilities include holding public meetings to discuss issues relating to the safety and operation of nuclear facilities in the State, advising state and local officials on matters affecting public health and safety, and serving as a public forum for transparent dialogue on nuclear operations in Connecticut.

The Council has reviewed the proposed rule and the accompanying Federal Register Notice. Based on its statutory mission and longstanding role in evaluating nuclear safety matters affecting the State of Connecticut, the Council offers the following observations regarding the proposed regulatory framework.

[1] "Licensing Requirements for Microreactors and Other Reactors With Comparable Risk Profiles," 91 FR 23628 (May 1, 2026).

The Council notes that the proposed rulemaking would introduce a broad set of departures from long-established safety practices that have historically contributed to the nuclear industry's strong operational record. These proposed changes include licensee-defined design and quality assurance criteria, significant flexibility in safety classification, and reduced reliance on deterministic safety principles such as the single-failure criterion. While the Council recognizes the promise of advanced reactor technologies, it encourages the NRC to carefully evaluate the extent to which the cumulative effect of these changes could weaken elements of the defense-in-depth philosophy that has guided decades of safe reactor operation.

The Council further observes that the proposed rule places significant emphasis on facilitating rapid deployment and licensing reviews of advanced reactors. The Council supports the development and deployment of efficient and effective (not rapid) nuclear technologies and recognizes their potential contribution to future energy needs. However, the proposed licensing efficiency should not diminish the conservatism, rigor, and defense-in-depth principles that underpin public confidence in nuclear regulation and have contributed substantially to decades of the nuclear industry's strong safety record.

With these considerations in mind, the Council offers two overarching observations regarding the proposed framework.

First, nuclear safety depends upon a profound respect for the energy potential and inherent hazards contained within every reactor core, regardless of its size or projected radiological consequence.
Throughout the history of commercial nuclear power, safe operation has been grounded in a culture that combines technical excellence with a profound respect for the energy potential and hazards associated with reactor cores. A regulatory structure that characterizes certain reactors as "low-consequence" must take care to not diminish this fundamental principle. Even small or transportable reactors contain significant inventories of radioactive material and rely on engineered and passive systems whose performance must be assured under all expected operating and accident conditions. Conservatism, technical rigor, and adherence to proven safety principles must remain essential.

Second, the Council's statutory role is to promote transparency and ongoing public engagement whenever nuclear technologies are operated in Connecticut.
This includes monitoring implementation of new regulatory frameworks, facilitating public understanding of safety issues, and serving as a conduit between communities, the NRC, and reactor operators. Should advanced reactors be proposed within Connecticut, the Council will remain actively engaged in reviewing the implementation of Part 57, particularly with respect to safety, emergency preparedness, public communication, and long-term oversight.

Beyond these overarching considerations, the Council highlights several areas of particular concern.

> The proposed allowance for remote and autonomous operations represents a significant shift in the operational model for nuclear facilities. The absence of on-site operators or security personnel raises important questions regarding cybersecurity resilience,

communication reliability, operator situational awareness, physical security, and timely response to abnormal events. Passive safety features provide substantial benefits, but they do not eliminate the need for human judgment, physical presence, and operational redundancy during unanticipated conditions.

The Council encourages the NRC to proceed cautiously with respect to relaxing deterministic criteria, particularly the single-failure criterion. Deterministic protections have historically formed a critical foundation for safety analysis and have served as a backstop against uncertainties in modeling, reliability data, and operational assumptions. Risk-informed approaches can provide valuable insights and should complement—but not replace—established deterministic margins, especially for technologies with limited operational history.

The Council further notes that the proposed rule would permit licensee-defined safety classifications and quality assurance frameworks, potentially resulting in significant variability in safety expectations among licensees. The Council believes that clear, transparent, and independently verifiable safety requirements remain essential to sustaining public confidence and ensuring that design, fabrication, construction, and operational practices achieve a consistently high level of reliability.

Finally, the Council encourages the NRC to consider the extent to which the cumulative effect of streamlined licensing provisions, reduced staffing assumptions, expanded autonomous functions, and broad regulatory flexibility could create a public perception that traditional safety margins are being reduced. Maintaining public confidence in advanced reactor technologies will require not only robust technical safety but also a regulatory framework that clearly demonstrates continued commitment to conservatism and independent, regulatory oversight.

The Council recognizes that advanced nuclear technologies may play an important role in meeting future energy needs and supports rigorous, transparent pathways for their evaluation. As Connecticut undertakes its responsibilities regarding nuclear safety and public engagement, the Council will continue to provide a forum for discussion, promote transparency, and evaluate the safety implications of emerging reactor technologies and associated regulatory frameworks.

In summary, the Council respectfully encourages the NRC to:

1. Carefully evaluate the extent of departures from long-established safety standards, particularly those relating to deterministic criteria and defense-in-depth principles;
2. Consider strengthening safeguards, oversight expectations, and performance requirements for remote and autonomous operations;
3. Maintain clear, objective, and independently verifiable safety classification and quality assurance requirements; and
4. Establish and provide that efforts to “facilitate efficient deployment” remain fully consistent with the conservatism and rigor that have long characterized nuclear safety regulation.

The Council appreciates the opportunity to comment on this important rulemaking and looks forward to continued engagement with the NRC, the State of Connecticut, local officials, and affected communities as advanced reactor technologies and their regulatory frameworks continue to evolve. The Council remains committed to promoting transparency, public understanding, and the highest standards of public health and safety, grounded in the longstanding principle that nuclear regulation must be informed by a profound respect for the energy potential and inherent hazards of reactor cores.

Respectfully submitted,

Michael D. Quinn, Sc.D.
Chair
Connecticut Nuclear Energy Advisory Council

Copy to:

NEAC
Commissioner, DEEP
Senator Richard Blumenthal
Senator Christopher Murphy
Congressman Joseph Courtney
State Senate President Pro Tem
State Senate Majority Leader
State Senate Minority Leader
State Speaker of the House
State House Majority Leader
State House Minority Leader
Co-Chairs State General Assembly Energy & Technology Committee

NRCExecSec Resource

From: Semancik, Jeffrey <Jeffrey.Semancik@ct.gov>
Sent: Friday, June 12, 2026 1:22 PM
To: NRCExecSec Resource
Cc: quinnmd1@outlook.com; MIchael Quinn
Subject: [External_Sender] RE: State of Connecticut Letter NRC–2025–0379
Attachments: NEAC Comments part 57 (signed).pdf

Dear Ms. Safford,

On behalf of the Connecticut Nuclear Energy Advisory Council (NEAC), please find attached the Council's comment letter regarding the U.S. Nuclear Regulatory Commission's proposed rule and guidance on Licensing Requirements for Microreactors and Other Reactors With Comparable Risk Profiles (Docket ID: NRC–2025–0379).

Please note that this letter has been submitted to the Federal Register docket in accordance with the NRC's instructions for public comment.

We appreciate the Commission's consideration of NEAC's perspectives on this important rulemaking.

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