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10 CFR Part 53: Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors

Comment On: NRC-2019-0062-0310

Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors

Document: NRC-2019-0062-DRAFT-0528

Comment on FR Doc # 2024-23434

Submitter Information

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Organization: BTI, CATF, ClearPath, GEC, NIA, and Third Way

General Comment

Please see attached pdf.

Attachments

February 2025 Joint NGO Part 53 Comment



CLEAN AIR
TASK FORCE

CLEARPATH



THIRD WAY

February 28, 2025
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Joint NGO Comments on NRC's Rulemaking on the Part 53, Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors (RIN-3150-AK31; NRC-2019-0062)

Dear U.S. Nuclear Regulatory Commission Staff:

The Nuclear Regulatory Commission (NRC) has worked diligently over the past five years to develop a risk-informed, performance-based, and technology-inclusive regulatory framework in 10 CFR Part 53 ("Part 53") to support the regulation and deployment of advanced reactors. We thank the NRC staff, management, and Commission for their efforts to create a usable rule that can enable the deployment of advanced nuclear energy.

This joint comment provides the unique perspectives on the Part 53 rulemaking process from several non-governmental organizations (NGOs) with a shared interest in the development and deployment of advanced nuclear reactors to support public clean energy and energy security needs. The NGO perspectives shared in this comment include those of The Breakthrough Institute, Clean Air Task Force, ClearPath, Good Energy Collective, Nuclear Innovation Alliance, and Third Way.

While the NRC staff's incorporation of the Commission direction in the proposed rule language is a step in the right direction, additional changes are still needed in the rule. The proposed rule incorporates some performance-based regulatory requirements but thus far does not fully align with the intent of the Nuclear Energy Innovation and Modernization Act (NEIMA), the Commission direction in the SRM, and the relevant portion of the ADVANCE Act. Additionally, there are several ongoing, recently completed, or possibly anticipated rulemakings that directly relate to licensing of advanced reactors that may be inconsistent with the proposed Part 53 rule. We believe that additional changes to the proposed rule can help create a transformative rule that enables the effective, efficient, and predictable licensing of advanced reactors. As currently proposed, the Part 53 licensing framework would not produce an advanced reactor licensing process that works for the wide variety of advanced reactor technologies currently under development.

The NRC will need to continue ongoing regulatory reform and implement regulatory changes to meet the direction from Congress to create an effective, efficient, and predictable regulatory framework for advanced reactors, and to establish a foundation for future enhancements as they are identified. Fortunately, the Part 53 rule could be adapted and expanded to accomplish these goals through the following three significant actions:

1. Eliminate unnecessary and duplicative requirements and make regulation more efficient by moving details out of the rule language and into guidance where appropriate. A high-level rule that more heavily leverages regulatory guidance is consistent with Enclosure 3 in the Commission's direction to staff in SRM-SECY-23-0021. This will increase regulatory flexibility by allowing a wider variety of safety cases, increase regulatory predictability over time as applicants and staff formalize guidance as they gain experience with Part 53, and enable on-going public stakeholder engagement through public involvement in the guidance development process.
2. Replace requirements for an "all hazards" probabilistic risk assessment (PRA) with requirements that enable the use of a wider range of different risk assessments to meet the regulatory requirements in the rule. Eliminating the all-hazards PRA requirements and instead requiring applicant completion of a "risk evaluation" would align with both the ADVANCE Act direction to use "alternatives to probabilistic risk assessments" and is consistent with Enclosure 2 in the Commission's direction to staff in SRM-SECY-23-0021, which stated that the risk evaluation requirement could be met by using either a PRA, or other qualitative or quantitative risk evaluation methods.
3. Create clear pathways in Part 53 that enable applicants to transition from near-term licensing activities in 10 CFR Part 50 and Part 52 to Part 53 licensing activities in the future. Nearly all new reactor applicants currently engaging with the NRC are focused on the licensing processes currently available in Parts 50 and 52. If an applicant completes the licensing process under these parts or makes significant progress towards licensing (e.g., issuance of a construction permit or receipt of a safety evaluation report for a topical report), it's not clear if the applicant could transfer this licensing progress to licensing under Part 53. Without clear pathways for applicants to move from existing regulations to Part 53, applicants that are making progress on licensing today may not utilize Part 53 in the future.

These three recommendations are presented jointly by these NGOs to advance the public interest in ensuring that the NRC develops a successful Part 53 rule that will be used and is useful. Some of the organizations signing this letter and other stakeholders have submitted specific wording changes in separate public comments. NRC staff should carefully consider changes that enable the final rule to meet the three recommendations above to create a Part 53 rule that allows a variety of technology-inclusive, risk-informed, and performance-based licensing approaches that industry plans to use for new reactors.

Making the changes described in this letter would help produce a final rule that is practicable for industry and ensures that the NRC fulfills its mission. Advanced nuclear energy has an opportunity

to help meet our nation's clean energy and energy security needs, and an effective Part 53 regulatory framework can play a critical role in making the opportunity a reality.

The NGOs supporting this letter (The Breakthrough Institute, Clean Air Task Force, ClearPath, Good Energy Collective, Nuclear Innovation Alliance, and Third Way) again thank NRC staff and management for their continued work to make Part 53 an effective framework to support the safe development and deployment of advanced reactors. If you have any questions regarding this joint comment, please contact Patrick White (pwhite@nuclearinnovationalliance.org).

Sincerely,

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