

## U.S. Nuclear Regulatory Commission Public Meeting Summary

January 14, 2024

**Title:** Public Meeting to Discuss the Part 53 Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors Rulemaking - Proposed Rule

**Meeting Identifier:** 20241405

**Date of Meeting:** November 19, 20, and 21, 2024

**Location:**

U.S. Nuclear Regulatory Commission  
NRC Two White Flint North  
11545 Rockville Pike  
06-D02  
Rockville, MD

Webinar (via Microsoft Teams)

**Type of Meeting:** Information Meeting with a Question and Answer Session

**Purpose of Meeting:**

The U.S. Nuclear Regulatory Commission (NRC) staff hosted a multiday public meeting on November 19, 20, and 21, 2024, to discuss the NRC regulatory approach in the “Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors” proposed rulemaking (Part 53). This meeting promoted stakeholder understanding of the proposed rule. The staff discussed the structure and content of the proposed rule and answered questions to facilitate the submission of meaningful comments on the proposed rule.

**General Details:**

In response to direction from the Nuclear Energy Innovation and Modernization Act (NEIMA) (Public Law 115-439), the NRC is proposing to amend its regulations to create a voluntary, performance-based alternative regulatory framework for licensing future commercial nuclear plants. The new alternative requirements and implementing guidance would adopt technology-inclusive approaches and use risk-informed and performance-based techniques to ensure an equivalent level of safety to that of operating commercial nuclear plants while providing flexibility for licensing and regulating a variety of technologies and designs for commercial nuclear reactors.

The proposed Part 53 rule was published in the *Federal Register* on October 31, 2024 (89 FR 86918) for a 60-day comment period scheduled to end on December 30, 2024. The comment period was subsequently extended to February 28, 2025.

Along with the publication of the proposed rule, the NRC publicly released supporting and related materials:

- Draft Regulatory Analysis (Agencywide Documents Access and Management System [ADAMS] Accession No. ML21165A112)
- Draft Environmental Assessment (ADAMS Accession No. ML24095A163)

- Draft Supporting Statements for Information Collection (ADAMS Accession No. ML21162A109, ML23030A400, ML24220A036, ML23030A576, ML24220A034, ML24220A035, ML24220A033, ML24240A008, ML24220A061, ML24220A060)

The NRC also issued the following supporting guidance documents for public comment in parallel with the proposed rule:

- Draft Regulatory Guide (DG)-1413, “Technology-Inclusive Identification Of Licensing Events For Commercial Nuclear Plants” (ADAMS Accession No. ML22257A173)
- DG-5073, “Fitness For Duty Programs For Commercial Nuclear Plants And Manufacturing Facilities Licensed Under 10 CFR Part 53” (ADAMS Accession No. ML22200A037)
- DG-5074, “Access Authorization Program for Commercial Nuclear Plants” (ADAMS Accession No. ML22199A246)
- DG-5075, “Establishing Cybersecurity Programs For Commercial Nuclear Plants Licensed Under 10 CFR Part 53” (ADAMS Accession No. ML22199A257)
- DG-5076, “Guidance for Technology Inclusive Requirements for Physical Protection of Licensed Activities at Commercial Nuclear Plants” (ADAMS Accession No. ML22203A131)
- DG-5078, “Fatigue Management For Nuclear Power Plant Personnel At Commercial Nuclear Plants Licensed Under 10 CFR Part 53” (ADAMS Accession No. ML22264A109)
- Draft Interim Staff Guidance (DRO-ISG)-2023-01, “Operator Licensing Programs” (ADAMS Accession No. ML22266A066)
- DRO-ISG-2023-02, “ISG Augmenting NUREG-1791, ‘Guidance for Assessing Exemption Requests from the Nuclear Power Plant Licensed Operator Staffing Requirements Specified in 10 CFR 50.54(m),’ for Licensing Commercial Nuclear Plants under 10 CFR Part 53” (ADAMS Accession No. ML22266A068)
- DRO-ISG-2023-03, “Development of Scalable Human Factors Engineering Review Plans” (ADAMS Accession No. ML22266A072)

The meeting consisted of NRC staff presentations on the major Part 53 Subparts, conforming changes to Parts 26 and 73, and the supporting documents referenced in the proposed rule. There was also a question-and-answer session where the public was invited to pose questions to the staff to get any needed clarifications on the proposed rule package. The meeting was attended by approximately 251 people participating through webinar or in person at NRC headquarters (see Appendix A, “List of Public Meeting Participants”).

## **Summary of Presentations:**

### **November 19, 2024:**

Nicole Fields of the NRC opened the meeting and introduced herself as the meeting facilitator and backup project manager for the proposed rulemaking. Ms. Fields also introduced Bob Beall of the NRC as the primary project manager for the Part 53 rulemaking and another meeting facilitator. Ms. Fields described the purpose of the meeting (to discuss the proposed rule to inform the public comment process) and introduced Jeremy Bowen of the NRC staff to provide opening remarks. Mr. Bowen stated that that the proposed rule, developed in response to NEIMA and to support the Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy Act of 2024 (ADVANCE Act), aims to provide a technology-inclusive and risk-informed approach, establishing licensing and regulatory flexibility. Mr. Bowen discussed the importance of stakeholder input to support future revisions to Part 53 and stated that the public comment period has been extended to the end of February 2025. Mr. Bowen turned the meeting over to Gregory Bowman of the NRC

staff who thanked participants for their attendance and comments on the rule and the NRC staff for work on the proposed rule.

Ms. Fields provided an overview of the meeting logistics and agenda, provided links to the proposed rule and associated documents, and encouraged participants to read the proposed rule. Ms. Fields stated that no comments would be accepted, and no formal responses or regulatory decisions would be made, during the public meeting. Ms. Fields then provided a brief overview of the rulemaking process and milestones before turning the meeting over to Anders Gilbertson of the NRC staff.

After each section of the staff presentations described below, the staff paused for questions from stakeholders; stakeholder feedback is summarized together in the “Public Feedback and Questions” section of this summary.

Mr. Gilbertson introduced himself as one of the technical leads for the Part 53 rulemaking. Mr. Gilbertson then discussed the following topics related to the need for the Part 53 regulatory framework: 1) modernizing the existing regulatory framework, 2) the flexibility provided by Part 53 as compared to Parts 50 and 52, 3) the Part 53 project life cycle, and 4) the Part 53 regulatory framework. Mr. Gilbertson highlighted that the pink boxes included throughout the presentation slide deck refer to specific requests for comment included in the *Federal Register* notice. Mr. Gilbertson then discussed Part 53, Subpart A, topics, including general provisions and new or revised terminology.

Mr. Gilbertson then discussed Part 53, Subpart B, starting with § 53.210 (safety criteria for design-basis accidents [DBAs]) and § 53.220 (safety criteria for licensing-basis events [LBEs] other than DBAs). Mr. Gilbertson discussed the principles of integrated risk-informed decision-making from Regulatory Guide (RG) 1.174, “An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to Licensing Basis,” analysis of DBAs, analysis of LBEs other than DBAs, and comprehensive risk metrics and associated risk performance objectives.

After a break for lunch, Mr. Gilbertson continued his discussion of technology-inclusive safety requirements, focusing on § 53.230 through § 53.250. In this session, Mr. Gilbertson discussed safety functions, LBEs, definitions, and defense-in-depth. Mr. Reckley presented for the remainder of the provisions on Subpart B, discussing normal operations, protection of plant workers, requirements related to radiation protection programs, and contents of applications for standard design certifications: technical information.

Mr. Gilbertson then provided an overview of Part 53, Subpart C, which contains the provisions for design and analysis requirements. Mr. Gilbertson stated that design features must be implemented to meet safety criteria, with a focus on protecting structures, systems, and components (SSCs) from external hazards such as fires or aircraft impacts. Mr. Gilbertson continued, explaining that the functional design criteria for various plant operations ranging from normal functions to safeguarding plant workers and ensuring long-term cooling after accidents, are specified within Subpart C. Mr. Gilbertson explained that the design process outlined in Subpart C must also incorporate considerations for human factors, criticality monitoring, and minimizing contamination for decommissioning. Additionally, Mr. Gilbertson stated that comprehensive safety categorization of SSCs would be required, classifying them based on their safety significance and establishing special treatments for those critical to safe plant operations. Mr. Gilbertson then provided an overview of the analysis requirements outlined in Subpart C, which emphasize the use of Probabilistic Risk Assessment (PRA) to evaluate risks and ensure defense-in-depth strategies are in place. Mr. Gilbertson explained that the PRA would be used to identify and

categorize LBEs, evaluate potential event sequences, and support safety classification of plant systems.

Finally, Mr. Gilbertson provided an overview of the siting requirements in Part 53, Subpart D. Mr. Gilbertson discussed general siting and siting assessment, external hazards, site characteristics, population-related considerations, and siting interfaces.

### **Public Feedback and Questions:**

Following each presentation, meeting attendees were given the opportunity to ask questions. Several members of the public raised questions related to the proposed rule language. Members of the public also asked questions throughout each presentation. In several instances when members of the public provided feedback on the proposed rule, the NRC staff encouraged them to submit their comments formally through [regulations.gov](https://www.regulations.gov). Below is a high-level summary of the questions that were asked and the NRC staff's responses.

#### *Introduction and Need for Alternatives to the Existing Regulatory Framework*

- A stakeholder asked about the availability of DG-1410, "Technology Inclusive, Risk Informed, And Performance Based Methodology for Seismic Design of Commercial Nuclear Plants." The staff indicated that not all documents associated with the proposed rule are currently available, as staff continues to work on them. NRC staff also clarified that DG-1410 is not explicitly associated with the Part 53 proposed rule and will be released independently once it is finalized in the coming months.
- A stakeholder asked where the staff is in the process of incorporating aspects of the ADVANCE Act, including requirements related to micro-reactors, into the proposed rule. The staff responded that the NRC has identified components of the ADVANCE Act that can be addressed in the proposed rule, but that other components may require additional changes to the Part 53 proposed rule or in a future rulemaking effort.

#### *Subpart B – Technology-Inclusive Safety Requirements*

- A stakeholder asked several clarifying questions about the PRA requirements under § 53.450(a) and said that the preamble language on this topic could be interpreted differently than the regulatory language. The NRC staff answered that § 53.450(a) requires a PRA, which needs to cover the range of hazards that a facility would be expected to be exposed to. The staff said that the proposed approach is a middle-ground to balance resource intensiveness and rigorous analysis. The staff stated that § 53.450(a) establishes that a PRA is needed, while § 53.450(e) demonstrates how to use it in combination with other approaches. The staff said that comprehensive risk metrics and the associated performance objective would need to identify alternative approaches used.
- During the discussion of § 53.710 and § 53.1550, a stakeholder asked if there will be guidance including a list of available risk metrics to choose from. The staff answered that the NRC is working on guidance on staff evaluation of risk metrics. This guidance would not provide the list of comprehensive risk metrics but would focus on how proposed risk metrics would be evaluated. The staff said that an explanation of equivalence in safety will be expected to be included in applications.
- Another stakeholder asked for clarification on the "more than minimal reduction" language in § 53.1550. The staff responded that this language is intentionally open-ended, as it is unknown what comprehensive risk measures would be but added that the existing discussion on reduction involves values of around 10%.

- A stakeholder asked about the footnote in § 53.710, specifically whether the “defined period” would be in the rule or specified by the applicant. The staff said that the period would be proposed by the applicant and added that a per-year basis is most common.
- A stakeholder asked what would be considered an appropriate level of safety for a comprehensive risk metric and whether the NRC would define the appropriate level of safety in terms of a comprehensive risk metric. The staff replied that quantitative health objectives (QHOs) are currently used to define an appropriate level of safety in regulatory analysis guidelines in NUREG/BR-0058, “Regulatory Analysis Guidelines of the U.S. Nuclear Regulatory Commission,” and the staff is still thinking on this issue as part of guidance development for risk metrics. The staff added that the NRC is open to feedback and proposals on this topic. Another staff member said that an integrated approach to how an applicant uses risk metrics is part of the overall argument and that the NRC would be open to a comprehensive risk metric that may not relate to offsite dose.
- A stakeholder asked about methodologies other than PRA, and how the NRC will review such methodologies to assure it can be used in this application. The staff responded that it would need to be application-specific, analyzed on a case-by-case basis. The staff said that peer review is one defined process for addressing this and is referenced in RG 1.247, “Acceptability of Probabilistic Risk Assessment Results for Non-Light-Water Reactor Risk-Informed Activities.”
- A stakeholder said that barriers are one way of demonstrating risk metrics are met and asked that in the case where there are more barriers to release, if an application would be considered to have more defense in depth. The staff responded affirmatively, stating that traditionally NRC has taken the aforementioned approach.
- A stakeholder asked about QHO acceptability and noted that the frequency-consequence (F-C) curve from the Licensing Modernization Project (LMP) is not specifically limited to QHOs. The stakeholder asked if QHOs provide enough consideration to be the sole basis for a comprehensive risk metric. The NRC staff responded that requirements under Part 53 would include comparison against the risk performance objective, looking at the cumulative risk. The staff also referenced the evaluation criteria for LBEs as an analog to the use of other pieces of the F-C target from NEI 18-04, “Risk-Informed Performance-Based Technology Inclusive Guidance for Non-Light Water Reactor Licensing Basis Development.” Another staff member stated that the F-C curve is not a cumulative risk measure, but it is a measure of how one might meet § 53.450(e) acceptance criteria, in addition to the comprehensive risk measure.
- A stakeholder asked whether the language in § 53.220(b) is stating that comprehensive risk metrics don’t include sequences that are DBAs. The NRC staff said that this approach is informed by Nuclear Energy Institute Technical Report 18-04 (NEI 18-04) and added that DBAs are usually not characterized in terms of frequency and consequence, which is why they were excluded from § 53.220(b). The staff added that DBAs are not traditionally included in risk metrics and added that DBA frequencies are usually very low because they are intentionally conservative.
- A stakeholder asked if it was the NRC’s intent for RG 1.233, “Guidance for a Technology-Inclusive, Risk-Informed, and Performance-Based Methodology to Inform the Licensing Basis and Content of Applications for Licenses, Certifications, and Approvals for Non-Light-Water Reactors,” which is currently only applicable to non-light water reactors (LWRs), to be applicable to both non-LWRs and LWRs. The NRC staff answered that RG 1.233 is not going to be updated, and that there will be additional guidance specific to Part 53 that will mirror LMP methodology. The staff described some of the challenges with developing technology-inclusive guidance when the infrastructure

within the NRC and on consensus standards and codes are bifurcated based on technology.

- In reference to the request for comment on overall organization of the rule, a stakeholder suggested that § 53.260 and § 53.270 are duplicative and asked if it would be helpful for commenters to point out similar examples of duplication. The NRC staff responded that § 53.260 and § 53.270 could be examples, among others, of the NRC's approach in the rulemaking, where the NRC was trying to be broad and include pointers to other regulations, and the staff encouraged stakeholders to submit comments on this topic.
- A stakeholder asked if radiation protection areas are subject to special treatment and also asked about quality measures, the costs associated with them, and deviations from design criteria. The staff responded that radiation protection program areas would be subject to functional design criteria and added that special treatment is typically used in requirements associated with an unplanned event. The staff further remarked that radiation protection design features will have functional design criteria associated with that function. The staff said that safety classification criteria would trigger Appendix B to 10 CFR Part 50 where appropriate, and that there will be normal design controls to ensure that radiation protection is carried out.
- Two stakeholders asked if it would be acceptable for LWR or non-LWR applicants to meet the general design criteria 60 through 63 in Appendix A to 10 CFR Part 50. The NRC staff responded affirmatively, clarifying that those are the general design criteria setting out functional design criteria.

#### *Subpart C – Design and Analysis Requirements*

- A stakeholder asked for clarification on ambiguity regarding whether Part 20 is being added to directly or is being modified. The NRC staff explained that this topic will be addressed in guidance on the content of applications. The staff added that guidance for Safety Analysis Report (SAR) Chapters 9 and 10 as described in DANU-ISG-2022-01, "Review of Risk-Informed, Technology-Inclusive Advanced Reactor Applications—Roadmap," would likely remain applicable, but it's possible the reference to Appendix I in 10 CFR Part 50 might be replaced with a performance objective. The staff mentioned that if the exemption to provide less information at the design search stage is needed under § 50.34(a), it may not be needed under Part 53 because the distinction between various design stages is already made under Part 53, Subpart H. The staff further clarified that guidance is there to explain how to meet the requirements but does not establish the requirements themselves.
- A stakeholder asked why the NRC doesn't incorporate major codes by reference. The staff responded that if there are suggestions for improvement, stakeholders should submit comments.
- A stakeholder asked if § 53.440(b) requires quality assurance for non-safety-related but safety-significant (NSRSS) SSCs in line with endorsed standards. The staff responded affirmatively if one is available and noted that special treatment might point to something like a reliability assurance program.
- A stakeholder asked if the NRC had considered the threat environment, particularly the possibility of an adversary gaining control of aircraft, and how that might impact the design requirements in § 53.440. The NRC staff responded that Part 53 provides equivalent requirements to those in Parts 50 and 52, with some alterations to make it technology-inclusive, but the NRC staff has not specifically revisited the policy on aircraft impact risks at this time (which would need to be reviewed separately from the technical specifications in Part 53). A stakeholder also asked about aircraft impact and whether there would be mitigation for incoming aircraft. The staff confirmed that there is some

consideration of aircraft impact in Part 53, Subpart F, specifically in relation to incoming aircraft.

- A stakeholder asked if the requirements in § 53.450(e) would apply to criticality prevention, and if the NRC would be open to a more risk-informed benchmarking approach. The staff responded that criticality analysis for fuel outside the core is addressed in Part 53, Subpart F, not under § 53.450(e). The staff noted that plant upsets related to reactivity of the core need to be modeled and qualified under § 53.440(d) with proper data and codes.
- A stakeholder also asked if § 53.450(e) would apply to sequences that are risk-significant, such as those related to plant upsets. The staff confirmed that § 53.450(e) would include means to identify and prevent sequences that are risk-significant and would require the use of systematic approaches, including PRA, to evaluate risks.
- A stakeholder asked whether DBA analyses under Part 53 would be equivalent to those done under Parts 50 and Part 52, especially in terms of the single failure criteria. The staff explained that while Part 53 does not use single failure criteria, it still requires adequate defense in depth and demonstrates that multiple paths to safety are available. The staff elaborated that DBAs under Part 53 would test one success path, and backup would be assumed in the unlikely event of a failure.
- A stakeholder also asked about the difference between language in § 53.470 and applicants claiming margin to the original standard or same standard as others. The NRC staff explained that when applicants claim they can meet more restrictive criteria, it gets captured in the analysis record and maintained, but it is not considered margin unless they show defense in depth and additional safety measures.
- A stakeholder asked why language in the preamble to the proposed rule implies that Part 53 will use traditional deterministic approaches of defense in depth, which is potentially not in line with NEIMA. The staff clarified that while Part 53 maintains the defense-in-depth philosophy, it relies more on probabilistic approaches for certain areas, like DBAs, where only one success path would need to be tested.
- A stakeholder also asked why the term “PRA” was used instead of more general risk assessment terminology, as suggested by Enclosure 2 to Commission Paper (SECY Paper) SRM-SECY-23-0021, “Staff Requirements – SECY-23-0021 – Proposed Rule: Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors (RIN 3150-AK31).” The staff explained that the focus of the meeting is not to revisit the SRM or rationale behind how the staff addressed the Commission’s direction, but rather to focus on the published proposed rule.
- A stakeholder asked if a consensus PRA standard checklist would be helpful for ensuring PRA acceptability under Part 53. The staff responded that consensus codes and standards endorsed by the NRC would serve as the framework for evaluating PRA. If no specific standard exists for a case, the staff would review it on an application-by-application basis. The staff confirmed that there is flexibility in applying PRA standards, and alternative approaches could be considered as long as they meet the NRC’s risk objectives.
- A stakeholder asked about the status of a policy paper regarding aircraft impact for micro-reactors, titled “Nth-of-a-Kind Micro-Reactor Licensing and Deployment Considerations.” The staff mentioned that several policy issues are being considered for next generation micro-reactors, but the specifics of the policy paper would likely come next year. Another NRC staff member added that staff is working on a paper to address supplemental criteria for safety related to micro-reactors. The staff further addressed this topic during the public meeting on November 20, 2024.

- A stakeholder asked about the relationship between NSRSS and safety-related (SR) SSCs in § 53.440. The staff explained that NSRSS and SR SSCs are generally analogous, depending on whether the context refers to Parts 52 or Part 50. For fire protection, the appropriate categorization could fall under “safety significant” rather than “important to safety.”

*Subpart D – Siting Requirements*

- A stakeholder discussed siting considerations in the unique deployment model for technology-inclusive micro-reactors and asked whether NRC staff considered applications of micro-reactors and the provisions in the ADVANCE Act when choosing to retain traditional siting paradigms for Part 53. The staff expressed that they are aware of many of those topics, including the publicly available paper on micro-reactors, “Nth-of-a-Kind Micro-Reactor Licensing and Deployment Considerations,” and potential policy issues with transportable reactors and propulsion systems. The staff added that additional work is required to establish what regulatory or legislative changes may be needed to support those activities. The staff also discussed how they have considered various perspectives on siting issues under RG 4.7, Rev. 4, “General Site Suitability Criteria for Nuclear Power Stations,” and are continuing to look into the topic.
- A stakeholder asked whether the NRC plans to regulate transportable micro-reactors or those with propulsion systems. The staff responded that in the short term, transportable micro-reactors will be regulated under the developing entity such as the Department of Defense (DOD) or the Department of Energy, but commercial proposals for such systems would be the responsibility of the NRC. The stakeholder additionally asked whether NRC will be collaborating with the DOD to regulate transportable reactors. The staff clarified that the NRC would collaborate, as DOD project expertise could be relevant to an NRC design review.
- A stakeholder stated the ADVANCE Act calls out three ways that issues related to the population density criteria and licensing mobile reactors can either be addressed in the existing regulatory framework, in the Part 53 framework, or in a new rulemaking, and asked when a decision will be made as to which regulatory option will be pursued. The staff responded that they are working on how to address the ADVANCE Act and are open to feedback on the way it is currently handled in the proposed rule.

**Closing:**

Ms. Fields made brief closing remarks, including mentioning that the public meeting will resume at 9:00 AM on Wednesday, November 20, 2024, with discussion of Part 53, Subpart E.

**November 20, 2024:**

Nicole Fields of the NRC staff opened the meeting and introduced herself as the meeting facilitator and backup project manager for the proposed rulemaking. Ms. Fields also introduced Bob Beall of the NRC as the primary project manager for the Part 53 rulemaking and another meeting facilitator. Ms. Fields provided an overview of the meeting logistics and agenda. Lastly, Ms. Fields stated that no comments would be accepted, and no formal responses or regulatory decisions would be made, during the public meeting. Ms. Fields asked those interested in submitting a comment to do so on [regulations.gov](https://www.regulations.gov), adding that the comment period is open through the end of February 2025.

Bill Reckley introduced himself and outlined the requirements in § 53.610 and § 53.620 for construction and manufacturing activities related to advanced nuclear reactors that would be

licensed under proposed Part 53. Mr. Reckley also described topics that the NRC is seeking public comment on related to construction and manufacturing requirements. Mr. Reckley highlighted security concerns regarding the handling of special nuclear material (SNM) and fuel loading, including the use of certified fuel handlers and stringent physical and cybersecurity measures.

Mr. Reckley discussed requirements for operation under Part 53, Subpart F, including operational objectives establishing controls for plant structures, systems, and components (SSCs), personnel, and programs. Mr. Reckley also discussed: technical specifications and plant controls for safety-related (SR) and non-safety-related but safety-significant (NSRSS) SSCs; maintenance, repair, and inspection programs, including risk assessment; and programs, procedures, and guidelines. Mr. Reckley then discussed emergency preparedness, including requirements for consequence assessments and the specific request for comment on this topic. Additionally, Mr. Reckley briefly mentioned security programs but clarified that this topic would be discussed in the public meeting on Thursday, November 21<sup>st</sup>.

After a break for lunch, Ms. Fields opened the session and introduced Jesse Seymour of the NRC staff to discuss operating license (OL) requirements under Subpart F. Mr. Seymour discussed several topics, including: operator licensing requirements, requirements for generally licensed reactor operators (GLROs), plant staff training requirements, content of application requirements, general requirements, specific licenses for reactor operators (ROs) and senior reactor operators (SROs), facility licensees for self-reliant-mitigation facilities, and training and qualification of commercial nuclear plant personnel. Mr. Seymour resumed the meeting with a discussion of Interim Staff Guidance (ISG) related to operator licensing, including: DRO-ISG-2023-01, DRO-ISG-2023-02, and DRO-ISG-2023-03.

Nanette Valliere of the NRC staff conducted an overview of Part 53, Subparts H, I, G, J and M, covering licenses, certifications, and approvals; maintaining and revising licensing-basis information; decommissioning requirements; reporting and administrative requirements; and enforcement.

Brian Zaleski introduced himself as an FFD/Access Authorization Specialist in the Office of Nuclear Security and Incident Response. Mr. Zaleski provided an overview of the proposed new Part 26, Subpart M, which would apply a risk-informed, graded approach to FFD program requirements for Part 53 licensees, including workforces that construct and operate Part 53 licensed power reactors, as well as those that manufacture reactors. Mr. Zaleski stated that DG-5073, which accompanies the proposed rule, provides additional guidance on FFD program requirements under Part 53 and encouraged stakeholders to review the document. Lastly, Mr. Zaleski briefly reviewed changes to several existing sections of Part 26.

### **Public Feedback and Questions:**

Following each presentation, meeting attendees were given the opportunity to ask questions. Several members of the public raised questions related to the proposed rule language. Members of the public also asked questions throughout each presentation. In several instances when members of the public provided feedback on the proposed rule, the staff encouraged them to submit their comments formally through [regulations.gov](https://www.regulations.gov). Below is a high-level summary of the questions that were asked and the staff's responses.

- The NRC staff responded to a question from November 19<sup>th</sup>, 2024, public meeting related to the staff's review of aircraft impact issues related to micro-reactors. The staff

said that while there is a white paper in progress related to micro-reactors, it does not include aircraft impact, and the staff is currently evaluating the appropriateness of alternative approaches to addressing aircraft impact for micro-reactors.

- A stakeholder asked why the meeting on Framework B that was set to follow the Part 53 public meeting was cancelled. The staff responded that the NRC intends to finish the draft white paper concerning Framework B before holding the meeting and added that the white paper should be finished—and the Framework B meeting should take place—before the close of the comment period for the Part 53 proposed rule.

#### *Subpart E – Construction and Manufacturing Requirements*

- A stakeholder asked if the NRC considered relying only on the Part 70 application and requirements for fuel loading. The staff responded that fuel loading would be primarily governed by Part 70, but there seemed to also be a need to address fuel loading under Part 53.
- A stakeholder asked if the requirement for two independent physical mechanisms to prevent criticality is new. The staff responded that it is a new requirement that could contribute to meeting Part 70 requirements. The staff explained that part of the rationale for including this provision in Part 53 is that, while Part 70 covers the possession of SNM, requirements in Part 53 are needed to address the criticality risks at different stages of the process.
- A stakeholder asked for clarification on what is meant by "two independent physical mechanisms." The staff explained that one example could involve the use of control rods and control drums. These could be configured in various ways depending on the reactor's design. The staff noted that there could also be safety mechanisms outside the reactor facility, depending on the design.
- A stakeholder also asked how the "two independent physical mechanisms" requirement relates to Part 71, particularly in the context of transportation, such as the requirement to withstand a hypothetical incident where a package rolls off transport and falls into a river. The staff responded that they envisioned that the requirements would include two independent physical mechanisms during transportation to ensure that the reactor can withstand changes to its environment.
- A stakeholder asked why physical barriers are necessary to prevent criticality, given that software systems might also be able to prevent it. The staff answered that the ultimate safety measure for nuclear processes is physical protection. The staff emphasized that the double contingency principle from Part 71 supports having multiple layers of physical safety mechanisms.
- A stakeholder also asked if a deployment model where one entity manufactures, deploys, delivers, and operates the micro-reactor would change the need for two physical mechanisms. The staff stated the two physical mechanisms would still be required.
- A stakeholder asked if the final form of the rule would reference specific sections of Part 71 or be more general in nature. The NRC staff responded that while the rule currently points to Part 71, the NRC is open to feedback on this topic.
- A stakeholder asked whether inspections of fuel upon receipt of the reactor would be required, or if methods like weighing or verifying the material's orientation would suffice. The staff responded that, practically, material in a sealed reactor could have tracking mechanisms so that re-opening the reactor for material accountability might not be necessary.
- A stakeholder asked about the NRC's stance on factory testing of micro-reactors, or reactors with limited operational scope, and whether such testing could be considered

within the scope of Part 53. The staff explained that factory testing is being considered, but Part 53 does not currently address such testing directly. The staff is working on a white paper to provide more details on this topic. The staff emphasized that the paper would support discussions on factory testing and licensing, with input from the public. The staff reiterated that even though a white paper is forthcoming, submitting comments under Part 53 would help address issues related to factory testing within the context of Part 53.

- A stakeholder asked about the NRC's role in inspecting micro-reactors deployed for purposes like humanitarian aid, particularly when only minimal actions may be required, such as inspecting a concrete pad. The staff explained that a white paper is being developed to address the NRC's role in such scenarios, and it will cover engineering considerations and public participation.
- A stakeholder asked about additional security requirements for advanced reactors, such as molten salt reactors, and whether these would be addressed in an upcoming white paper. The staff mentioned that a SHINE Medical Technologies, LLC facility might serve as an example to look to. The staff added that the NRC is using a similar approach for new non-power reactors, where post-9/11 security orders and additional security measures, that have not yet been incorporated into regulations, will be discussed during pre-licensing meetings. The staff is also working on making physical security requirements more transparent, so licensees have a better idea of what is expected of them. The staff emphasized that licensees should reach out early in the process for focused discussions on security measures.

#### *Subpart F – Requirements for Operation*

- A stakeholder discussed the overlap in scope between the Licensing Modernization Project (LMP) and the reliability assurance program and asked if NRC has identified any gaps not covered by LMP that need to be addressed to meet the requirements of the reliability assurance program. The staff indicated that they were unaware of any gaps, adding that if LMP works as intended there would not be a gap. The staff added that in their view, the reliability assurance program should be defined by the scope of the LMP. Additionally, there is nothing preventing someone from signing up an integrated decision-making panel to serve multiple functions.
- A stakeholder asked whether there are any requirements for the integrity assessment program that are not already handled by Reliability and Integrity Management (RIM). The staff responded that RIM will be a vehicle to satisfy that requirement, adding that RIM emphasizes the need to look at degradation mechanisms, assess risks, and do timing. The staff said that the NRC is developing a revision to the RIM regulatory guide to incorporate Part 53.
- A stakeholder asked for an estimated timeline for when the emergency preparedness draft regulatory guide (RG 1.242, Rev. 1, "Performance-Based Emergency Preparedness for Small Modular Reactors, Non-Light-Water Reactors, and Non-Power Production or Utilization Facilities") will be available for public comment. The staff stated that the NRC does not have an estimated timeline, but it is being actively worked on to incorporate Part 53.
- A stakeholder asked if NuScale moves to licensing under Part 53 in the future whether their currently approved approach would meet the engineering expertise requirements. The staff responded that the NRC would need to compare the NuScale approach to the Part 53 requirements. The staff added that the Commission Paper (SECY Paper) addressing the NuScale example comments on factors including reliance on passive

safety features and number of credited human actions, and further discussed that Part 53 may require an exemption but does offer a lot of flexibility.

- A stakeholder asked how the proposed rule addresses safe load following by addressing the full suite of plant impacts. The staff stated that the staff is working on a draft regulatory guide to address the content of applications for Part 53 applicants, with guidance on load-following, including ramp rates, cyclic power changes, cycling of plant components, and the automation or protection system.
- A stakeholder asked whether self-reliant-mitigation facilities will be unique to Part 53 due to the classification of reactors under the Atomic Energy Act and sought context on why these facilities need to be defined as a class of reactors. The staff responded that the Atomic Energy Act requires uniform conditions for operators for classes of facilities, and establishing self-reliant-mitigation facilities as their own class allows the NRC to offer a reduction in regulatory burden to establish GLROs in places of ROs or SROs.
- A stakeholder sought clarification on whether a Part 50 or 52 applicant with an exemption could not have a GLRO because of the class distinction. The staff responded, with the caveat that this response would require legal review, that an individual licensed via a different mechanism would require a careful review with the challenge that the general license does not exist within Parts 50 or 52. The staff added that for existing facilities, there is room to request exemptions.
- A stakeholder stated that it will be important for licensees to know whether they have a path to a GLRO versus an SRO and asked whether guidance will be provided on the level of information required to support a determination. The staff responded that the staff are developing regulatory guidance on the content of applications with guidance on considerations for specific safety features to support the GLRO path and is still considering where that type of information would be established. The staff added that the level of information required to make a decision on GLRO versus SRO would be less than that of an OL or a combined license (COL), but more than a construction permit (CP). The staff suggested that the first-of-a-kind reactor would go through a CP with an assumption of staffing similar to the RO/SRO approach, while the nth-of-a-kind approach would involve implementation of the GLRO path.
- A stakeholder asked if the NRC has thought through the transition of advanced reactors from Parts 50 or 52 licensing to Part 53 given that key pieces will be significantly different. The staff responded that the staff have envisioned making it easier for Part 53 CPs and OLs to go into standard designs but have not built in cross-paths from Part 50 to Part 53. The staff envisions that for Parts 50 and 52 applicants using Technology Inclusive Content of Application Project (TICAP) and Advanced Reactor Content of Application Project (ARCAP) guidance, it would be an easier transition to Part 53.
- A stakeholder asked whether a license amendment request (LAR) to adopt certain Part 53 provisions under a Part 50 license might be a pathway to achieving the GLRO outcome. The staff responded that from the operations and staffing perspective, hypothetically the NRC would take the LAR and do that review. The staff further added that this is an integrated process requiring a look at plant design and the role of operators. The staff noted that technical issues around licensing may be able to be resolved, but there are also legal issues to be resolved.
- A stakeholder asked whether there is an incentive for existing applicants for advanced reactors who have pursued licensing under Part 50 to pursue a different application under Part 53 and expressed that they did not see a reason to pursue a Part 53 application if the safety basis is found to be sound under Part 50. The staff responded that the development of Part 53 was not necessarily focused on next-of-a-kind applications which already had a first-of-a-kind licensed under Parts 50 and 52, but

rather focused more on first-of-a-kind applications that would not have to go through exemptions under Parts 50 and 52.

- A stakeholder asked, from a legal perspective, if anything would prevent the transfer of a Part 50 CP to a Part 53 OL. The staff answered that stakeholders should understand the difficulties of such a process even if legal pathway is found, as Part 53 has no principal design criteria, unlike Part 50. The staff added that Part 53 was drafted not to be hospitable towards cross-part applications and encouraged stakeholders to submit comments on the issue.
- A stakeholder asked if a Part 50 licensee could submit under Part 53 a narrow LAR and have a reduced review because it would be a functional instead of prescriptive review. The staff responded that the existing review process for scalable human factors engineering (HFE) is done in a piecemeal and ad hoc fashion, and scalable HFE will provide a much cleaner methodology. If an applicant is coming in with a scaled HFE methodology, the key is to have a defensible basis for why the scaling and grading was done. The staff added that NRC reviews are scaled according to the hours and resources spent, so a smaller scale LAR would have a smaller expenditure.

#### *Subparts H, I, G, J, and M*

- In reference to the content of application requirements for CPs in § 53.1309, a stakeholder remarked that § 53.450(a) implies the need for an all-hazard Probabilistic Risk Assessment (PRA) which is inconsistent with RG 1.253.
- A stakeholder asked if the level of detail requested under Part 53 is equivalent to the detail requested in Part 50 Preliminary Safety Analysis Reports (PSARs) and Final Safety Analysis Reports (FSARs). The staff responded that it is intended to be same level of design information under Part 50 CPs and OLs.
- A stakeholder asked if the provisions in § 53.1452 take into account the rapid high-volume licensing deployment model. The staff responded that the provision was written before that document was released, and regardless there would need to be a point when a reactor enters operation, so existing regulations would trigger off of fuel load.
- A stakeholder asked if the requirement in § 53.1309 would be equivalent to that required for a design certification concept in Part 50, and if the final and complete design would be the expectation for a CP holder in this situation. The staff responded that the CP holder expectation is the same as under Part 50 and added that § 53.1309 needs to be read in its entirety to understand it. The staff added that there is not meant to be a more detailed requirement in Part 53 than in Part 50.
- A stakeholder asked what the overlap is between Part 53, Subpart I, and existing requirements in Part 54. The staff responded that there is a section titled “Renewal” in Part 53, and that the preamble says that the NRC did not attempt to write specific requirements for renewal in this rulemaking. The staff added that future rulemakings could add to or change these requirements but stated that a decision by the NRC has not been made. Additionally, the definition licensing-basis information in Part 53 versus Part 54 is similar but added that the definition in Part 53 is tailored to the structure and required content in Part 53. The stakeholder asked if pursuing licensing renewal under Part 53 would be more cost effective than under Part 54. The staff replied that there is the potential for license renewal to be easier, as there are existing programs looking for degradation and aging management throughout.
- A stakeholder asked why the NRC chose to group the § 53.1530 and § 53.1535 requirements together and asked if the NRC saw them as an increase in requirements

for CP holders. The staff said that the requirements in Part 53 were intended to mirror existing requirements.

- A stakeholder asked, based on the requirements of § 53.450, if the PRA would need to be updated every 2 years, or every 5 years. The staff responded that a FSAR update is for changes to facilities, so in theory if there were no changes to the FSAR, then it would be a very short report. The staff said that the 5-year standard is to make sure that PRAs are maintained periodically but added that it is the NRC's expectation that PRAs will be conducted more frequently under this construct.
- A stakeholder asked if it was allowed under Part 53 to "mothball" a unit for 5-10 years. The staff stated that the NRC did not change options for decommissioning whether actions are taken immediately or put in another state to be done later and added that the options for decommissioning are basically the same as before. Additionally, the staff added that the scenario described is one of the current options for decommissioning.
- A stakeholder stated that § 50.72 and § 50.73 are not performance-based, and asked if the staff considered how there might be changes to those equivalent requirements in § 53.1630 to § 53.1650. They added that these reporting requirements have some burden to them, and there may be an opportunity to reevaluate the requirements from Part 50 to ensure they are risk-informed. The staff responded that there is potential for rulemaking on performance requirements that could require harmonization. The staff said that the existing requirements are somewhat risk-informed and added that the proposed requirements are not significant changes from § 50.72 and § 50.73.
- A stakeholder made the general observation that the "Nuclear Modernization Act" is not referenced in Part 53 and asked if it ought to be referenced. The staff affirmed that NEIMA is referenced in the preamble and regulatory language.

#### 10 CFR Part 26 – Fitness for Duty

- A stakeholder asked whether all applicants and licensees would need to meet the requirements of Part 26, Subpart M, and, if so, what would the costs for such a program be. The staff answered that Subpart M would be optional and is meant to provide additional FFD program options for applicants and licensees that satisfy the criterion in § 26.603(c). Facilities licensed under Part 53 will therefore be able to choose to use the current FFD program or the new Subpart M program. The staff also said that costs for the FFD program are evaluated as part of the rulemaking process, adding that a cost-benefit analysis has been provided alongside the proposed rule.
- A stakeholder asked if the proposed changes were prompted by shortcomings identified in the current FFD program requirements. The staff answered that existing FFD program requirements remain adequate; Part 26, Subpart M, aligns more with a defense-in-depth strategy and addresses evolving needs, rather than correcting any deficiencies in current programs. The staff added that the preamble of the *Federal Register* notice for this rulemaking explains the NRC's rationale for proposing the addition of Subpart M.
- A stakeholder asked if there is a nexus between the insider mitigation program and access authorization program requirements in Part 73 and Part 26 respectively. The staff responded that Part 73 addresses the risk of sabotage while Part 26 is concerned with operator performance.
- A stakeholder asked if trustworthiness and reliability is part of the original intent of Part 26. The NRC staff answered affirmatively.
- A stakeholder asked if employee assistance programs would be optional under the proposed rule. The staff answered that they are not required under Part 26, Subpart M, but included in the draft guide as an option.

- A stakeholder asked if insider threat training would be included in the proposed FFD program requirements since the topic is mentioned in DG-5073, but no insider threat element was included in the list of training elements in DG-5073. The staff encouraged the stakeholder to submit a comment on this topic.
- A stakeholder asked if FFD programs for facilities located in remote locations would be permitted to utilize drug and alcohol or mental health treatments electronically for the determination of fitness. The staff responded that the proposed rule would provide flexibility, except under for cause testing, but facilities in remote locations with limited access to mental health professionals could certainly have an argument for the necessity of using electronic treatment options.
- A stakeholder addressed the determination of fitness process and asked if the proposed rule would provide for hiring substance abuse professionals, such as those with advanced degrees in substance abuse or psychology, for evaluations. The staff answered that this would depend on whether the FFD program implemented by the licensee refers back to § 26.87 or its own standalone requirements.
- A stakeholder asked the NRC to clarify whether FFD requirements apply only to reactor activities or to the entire facility. The staff answered that FFD programs apply to individuals with unescorted access, which includes those involved in reactor activities as well as other facility operations that may present risks. The stakeholder asked whether there might be other sources of risk besides those present at a nuclear facility that would fall outside the purview of the NRC. The staff answered that there are non-reactor risks that would still be considered nuclear and therefore under the purview of the NRC such as risks associated with fuel storage.
- A stakeholder asked the NRC to explain the discrepancy between “substance abuse” and “under the influence” as it relates to trustworthiness and reliability. The staff answered that the standard would be the same regardless of which term is used. The staff explained that “under the influence” is understood to be de facto substance abuse and is triggered when a staff member tests positive for substance or is observed to have abnormal behavior. The staff clarified that the definition for substance abuse under Part 26 remains unchanged since 2006 but clarified that this definition may vary from common conceptions of substance abuse.

### **Closing:**

Ms. Fields made brief closing remarks, including mentioning that the public meeting will resume at 9:00 AM on Thursday, November 21, 2024, with discussion of Part 73.

### **November 21, 2024:**

Nicole Fields of the NRC opened the meeting and introduced herself as the meeting facilitator and backup project manager for the proposed rulemaking. Ms. Fields also introduced Bob Beall of the NRC as the primary project manager for the Part 53 rulemaking and another meeting facilitator. Ms. Fields provided an overview of the meeting logistics and agenda. Lastly, Ms. Fields stated that no comments would be accepted, and no formal responses or regulatory decisions would be made, during the public meeting. Ms. Fields asked those interested in submitting a comment to do so on [regulations.gov](https://www.regulations.gov), adding that the comment period is open through the end of February 2025. Ms. Fields introduced the first topic of the day—changes to Part 73.

Chuck Teal of the NRC staff provided remarks on the technology-inclusive requirements for physical security in the proposed rule, including: general performance objectives and requirements; physical security for advanced reactors; security organization; search

requirements and training and qualification programs; security reviews; performance evaluation; maintenance, testing, and calibration and corrective actions; suspension of security measures; and records.

Tammie Rivera of the NRC staff gave an overview of the cybersecurity requirements in the proposed rule, including the key difference between the existing cybersecurity framework and proposed cybersecurity framework (notably the consequence-based approach), proposed cyber requirements & graded approach, draft guidance development (DG-5075), and specific requests for comments.

Brad Baxter of the NRC discussed the proposed rule's provisions for access authorization programs under § 73.120, including: performance objectives, behavioral observation, and the process for granting and terminating unescorted access at nuclear facilities. Mr. Baxter mentioned that the accompanying DG-5074 will provide an acceptable methodology for use by licensees to establish, maintain, and implement an access authorization program for commercial nuclear plants licensed under Part 53.

Nanette Valliere provided an update that DG-1410 related to seismic analysis guidance is being revised to align with Part 53 as published. Ms. Valliere mentioned that no significant changes are expected, but the final provisions will not be released before the end of the proposed rule public comment period. Ms. Valliere also noted that the staff plans to engage with stakeholders again in mid-2025. Ms. Valliere encouraged stakeholders to submit any comments on the prioritization of guidance documents, as this feedback would be useful in shaping future updates.

Brian Zaleski of the NRC staff addressed a point raised by a stakeholder in a previous presentation regarding flexibility under proposed Part 26, Subpart M. A stakeholder had asked whether there is flexibility for licensees to implement alternative programs. Mr. Zaleski explained that flexibility would depend on the specific programmatic elements in question. For example, provisions in § 26.604 and § 26.605(a) do not include provisions for Subpart M flexibility. These sections are modeled on Part 26, Subpart K, where licensees define certain credentials. However, under § 26.605(b), there are full credentialing requirements that align more closely with Part 26, Subpart H. Mr. Zaleski noted that, while flexibility exists, it is important that licensees still meet the requirements of the program.

### **Public Feedback and Questions:**

Following each presentation, meeting attendees were given the opportunity to ask questions. Several members of the public raised questions related to the proposed rule language. Members of the public also asked questions throughout each presentation. In several instances when members of the public provided feedback on the proposed rule, the NRC staff encouraged them to submit their comments formally through [regulations.gov](https://www.regulations.gov). Below is a high-level summary of the questions that were asked and the staff's responses.

#### *10 CFR Part 73*

- A stakeholder asked about the differences between § 73.55 and § 73.100, and when sites are not required to meet radiological protection against sabotage. The NRC staff responded that there are two paths available. One allows licensees to meet the requirements under § 73.67(d) if they are below the criterion for radioactivity on the outer boundary. If licensees are above that criterion, they can use § 73.55 (similar to existing requirements for large light-water-reactors (LWRs)), or the new proposed § 73.100.
- A stakeholder asked if the NRC was planning to issue new regulatory guides specifically for small modular reactors (SMRs) on the implementation of new and old technologies.

The staff responded that § 73.55 is more prescriptive so that licensees must follow a certain set of boundaries focused on security principles including detect, delay, and respond. In § 73.100, the staff noted that licensees can take those three principles and design a physical protection system in a more technology-inclusive way. This gives licensees more latitude but puts the burden on the licensee to provide a more rigorous analysis.

- A stakeholder asked how security inspections, cybersecurity inspections, and force-on-force exercises would be done for SMRs, noting this is a significant burden for an SMR facility. The staff responded that the NRC has not made a determination yet whether performance testing programs would be required for advanced reactors.
- A stakeholder asked how the NRC will convince the public that the requirements in § 73.100 create a comparable level of security to the existing requirements. The staff responded that it can be challenging in the security realm to prove to the public that an adequate determination has been made when the NRC does not necessarily share a lot of information. The staff added that the proposed rule says that licensees able to meet the criterion in § 53.860(a)(2) would not be subject to force-on-force exercises because they would not be subject to a design-basis threat (DBT). The staff noted that licensees subject to § 73.55 and § 73.100 could be subject to force-on-force exercises.
- A stakeholder asked about the increasing presence of drones in the threat environment and inquired if the NRC is looking into the ability for facilities to intercept drones. The staff responded saying that they could not share much information except that the NRC is actively looking at addressing drones.
- A stakeholder asked if the criteria laid out in § 53.860 could also be used in requirements for aircraft impact in § 53.440. The NRC staff responded that § 53.440 was designed to be technology-inclusive, and the staff would welcome public comments on what might be useful for criteria.
- A stakeholder commended the NRC staff for changing the language from “high” to “reasonable” protection in § 73.100 but asked why the change was not also made in § 73.55. The staff clarified that this was in reference to the Alternative Physical Security Requirements for Advanced Reactors rulemaking, and that the staff was given specific Commission direction in one rule and not in the other on that topic. The staff asserted that there will be a harmonization of the two rules at the final rule stage. The staff noted that the concepts of reasonable/high assurance are applied the same to § 73.55 and § 73.100.
- A stakeholder asked what would happen if the DBT changes or tactics change, leading the threshold under § 53.860(a)(2) to be exceeded. The staff responded that the NRC is requiring target sets regardless of if the licensee meets the criteria or not, but they are not sure yet whether there will be a required reassessment or not.
- A stakeholder asked if language discussing adversaries impacting the function applied to a narrow set of scope of program or digital consequences not impacting function, and if this language required protecting functions relating to consequence or just the function. The staff clarified that the language requires protecting just the functions, pointing to the language in § 73.110(a)(1)-(2), which discusses adversely impacting functions. The stakeholder asked if the radiological sabotage discussed in § 73.110(a)(1) would be specific to cyberattacks or if it would apply to combined physical/cyberattacks. The staff replied that a combined attack would be covered by this provision.
- A stakeholder asked if the DBT under § 53.860(a)(2) would include a coincidence cyberattack. The staff responded that under § 73.55, cybersecurity is included in the identification of the target set space, and the way the NRC is proposing consequence analysis starts with the target sets. The staff added that if a licensee performs the

analysis in accordance with § 73.1220(b)(1) and determines that it will be of low consequence, then there would still be a security program required but a narrower set of requirements.

- A stakeholder asked why awareness training is not required, arguing that it is difficult to accept the responsibility for detecting behaviors without some level of training to recognize and address them. The staff responded that the goal is to allow licensees to create robust programs based on their unique risks, which is why training is not explicitly required in the rule.
- A stakeholder asked if supervisors should report legal actions to program personnel. The staff indicated that, while the rule and guidance doesn't explicitly state this requirement, the intent is clear that supervisors should report legal actions to the appropriate program personnel. The staff agreed that it would be beneficial to clarify this responsibility to avoid any ambiguity.
- A stakeholder asked about the release of information, pointing out that consent is required to share certain information, such as for the § 73.56 program. The stakeholder noted that there is nothing in the rule or draft regulatory guide about releasing information without consent. The staff agreed that this is an important consideration from an operational standpoint. The staff suggested that further discussions are needed to determine how to address this issue in the final rule. The staff emphasized the importance of aligning with facilities that may not have as robust a program as larger power reactors.
- A stakeholder raised a concern about what they saw as circular reasoning in the DBT evaluation process. The staff acknowledged the validity of this point, but noted the DBT is necessary in order to put the physical protection program in place. The staff cited an example of a micro-reactor where an insider could exceed safety criteria by manipulating the reactor's power and emphasized the need to consider insider threats and potential changes to the source term that could lead to exceeding dose criteria as part of any adversary or DBT attack.
- A stakeholder asked if guidance documents would impose regulatory requirements. The staff clarified that guidance documents are meant to offer a suggested way to meet regulatory requirements, but applicants are free to propose alternative methods of compliance.
- A stakeholder asked for clarification regarding terminology related to high-volume rapid deployment, and the distinction between stationary and mobile reactors, and whether this topic would be covered in the next public meeting. The staff responded that they will discuss with the NRC staff supporting the micro-reactor white paper what their public engagement plans are. The stakeholder noted there needs to be sufficient time to work through these issues before the close of the comment period.
- A stakeholder asked if it would be possible to have a public list of NRC guidance documents that may require updates. The staff confirmed that NRC maintains an integrated schedule on the advanced reactor webpage, which is the best place to track documents the agency is actively working on. The staff added that while some technical content in guidance documents may not change, the content will likely be updated to include the licensing process outlined in Part 53.

#### *Wrap Up Discussion and Questions*

- A stakeholder asked about the tentative timeline for the next public meeting. The staff responded that specific dates have not been identified, but that the meeting will be in early January.

- A stakeholder asked whether the unique considerations for high-volume rapid deployment models and related terminology will be covered in the January public meetings. The staff stated that the NRC will coordinate a public engagement plan on this topic.
- A stakeholder asked whether there was any preference from the NRC on how staff would like to receive public comments on the draft regulatory guidance and interim staff guidance. The staff responded that comments can be submitted in any format, and that it would be helpful to keep subject matter comments together to ease the review process.
- A stakeholder asked if it would be helpful for the January 2025 public meeting to include more discussions or a workshop on the implementation of the ADVANCE Act. The staff indicated that the NRC has a team working to implement the ADVANCE Act, and the staff will coordinate public engagement plans between the ADVANCE Act, the Part 53 rulemaking, and micro-reactor teams to ensure these topics are covered in a timeframe that could support comments on the Part 53 proposed rule.
- A stakeholder asked how long NRC staff expect to need for the disposition of comments before proceeding to the next stage in the rulemaking. The staff indicated they are still working on revising the rulemaking schedule and added that the NEIMA deadline associated with publication of the final rule is December 31, 2027. The staff suggested monitoring the NRC rulemaking webpage and the unified agenda for the rulemaking, adding that the schedule will be updated.
- A stakeholder asked if items addressed in the ADVANCE Act would not make it into the Part 53 final rule unless the public brought up those topics in public comments. The NRC staff responded that they were not aware of any specific items in the ADVANCE Act that required the NRC to include in the Part 53 rulemaking—rather the Agency has flexibility to address the requirements in the Part 53 final rule, through guidance, or a separate rulemaking. The staff noted that, as required by the Administrative Procedures Act, anything included in the final rule must be either a logical outgrowth of the proposed rule or a public comment. The staff added that principle will guide the development of the Part 53 final rule.
- A stakeholder asked if it was possible for the staff to proceed with aspects of the proposed rule that did go out for public comment, but also update the rule language with further revisions without needing another rulemaking. The staff responded that the logical outgrowth principle refers to both the proposed rule text and the items in the FRN that the NRC has included as specific requests for comment.
- A stakeholder asked whether stakeholders with questions before the next public meeting can contact staff in the interim, particularly about clarifying questions on the rule text as published in the FRN. The staff said questions can be sent in and would be then posted publicly on ADAMS and regulations.gov, adding that a public forum is preferred for addressing questions. The staff added that the appropriate contact information is available in the presentation slide deck. The staff suggested that correspondence make it clear they are asking for clarification to help inform a comment rather than submitting a comment.
- A stakeholder asked whether correspondence with NRC staff, which is later entered into regulations.gov, should include the appropriate rulemaking identification and docket number so that it is clear where to place the email response in the public domain. The staff agreed with this approach and reminded participants that additional questions can be asked at the January 2025 public meeting.

**Closing:**

Ms. Fields reminded attendees that the NRC is planning on having another public meeting focused on the Part 53 proposed rule. Ms. Fields closed the meeting thanking all attendees for their participation. Ms. Fields reminded attendees to submit public comments on [regulations.gov](https://www.regulations.gov), and that all comments are due by February 28, 2025.

**Action Items/Next Steps:**

This concluded the public meeting to discuss the Part 53 Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors Rulemaking proposed rule.

**Related Documents:**

- ML24311A084 – 11/19/2024 Public Meeting to Discuss the Part 53 Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors Rulemaking - Proposed Rule
- ML24319A002 – 11/19/2024 - 11/21/2024 - NRC Staff Presentation Slides Public Meeting - Proposed Rule 10 CFR Part 53 "Risk-Informed, Technology-Inclusive Regulatory Framework For Commercial Nuclear Plants"
- ML24344A067 – November 19, 2024, Public Meeting Transcript for Part 53 Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors Rulemaking - Proposed Rule
- ML24348A100 – November 20, 2024, Public Meeting Transcript for Part 53 Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors Rulemaking - Proposed Rule
- ML24348A102 – November 21, 2024, Public Meeting Transcript for Part 53 Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors Rulemaking - Proposed Rule