



**Rulemaking for
PHYSICAL SECURITY FOR ADVANCED REACTORS**

**Proposed Rule
(NRC Docket ID: NRC-2017-0227)**

December 12, 2019

Purpose

- Discuss the path forward for the proposed rulemaking “Physical Security for Advanced Reactors.”
- Solicit public feedback on the proposed rulemaking approach.
 - NRC will not provide formal comment responses to any oral remarks made at this meeting.

Background

- SECY-18-0076, “Options and Recommendation for Physical Security for Advanced Reactors,” dated August 1, 2018 (ADAMS Accession No. [ML18170A051](#))
 - The staff proposed 4 alternatives and recommended alternative 3:
 - 1) No change / Status quo
 - 2) Address possible requests for alternatives via guidance
 - 3) Limited scope rulemaking
 - 4) Broader based rulemaking
- Staff Requirements Memorandum, SRM-SECY-18-0076, dated November 19, 2018 (ADAMS Accession No. [ML18324A469](#))
 - The Commission approved a limited scope rulemaking (Alternative 3)
 - The Commission directed the staff to interact with stakeholders to identify specific requirements within existing regulations that would play a diminished role in providing physical security for advanced reactors

Regulatory Basis

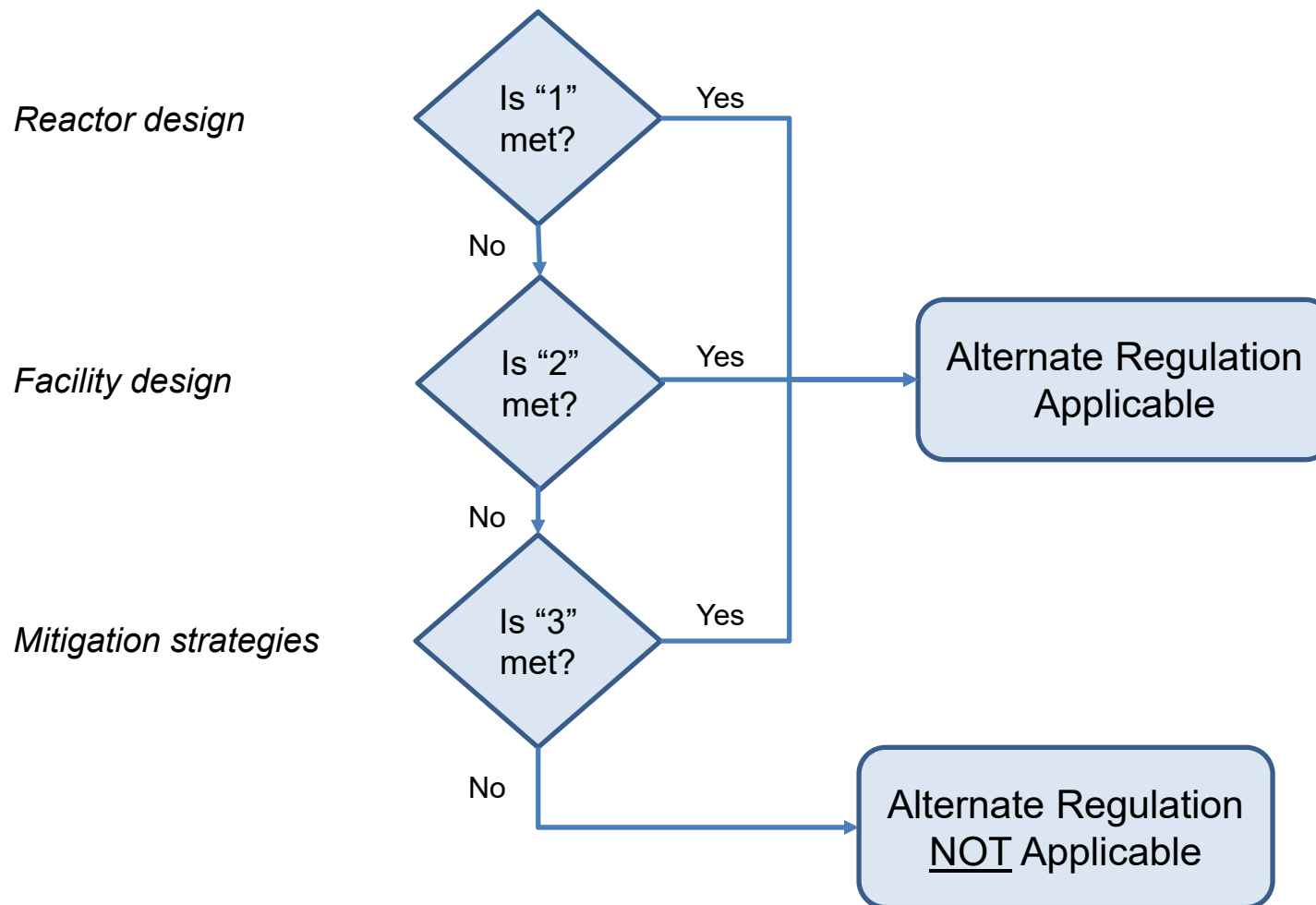
- Issued for public comment on July 16, 2019
 - Comment period closed on August 15, 2019
 - Six entities provided comments: 4 support, 2 oppose the rulemaking
 - Comments on the regulatory basis will be addressed in the proposed rule
- Permits future applicants and licensees to meet alternative requirements for a risk-informed, performance-based approach for designated portions of the physical security program.
- Retains the current overall framework for security requirements while providing alternatives for advanced reactors to certain physical security regulations and guidance.
- Most likely focus of the rulemaking is an alternative to the prescribed minimum number of armed responders currently defined in 10 CFR 73.55 (k) and prescriptive requirements in 10 CFR 73.55 for onsite secondary alarm stations.
- Regulations.gov—Docket No. NRC-2017-0227

Performance Criteria

The staff identified the following three performance criteria that could be used to identify reactors that could make use of the alternative provided in this proposed rulemaking:

- 1) The radiological consequences from a hypothetical, unmitigated event involving the loss of engineered systems for decay heat removal and possible breaches in physical structures surrounding the reactor, spent fuel, and other inventories of radioactive materials result in offsite doses below the reference values defined in 10 CFR 50.34(a)(1)(ii)(D) and 52.79(a)(1)(vi); or
- 2) The plant features necessary to mitigate an event and maintain offsite doses below the reference values in 10 CFR 50.34(a)(1)(ii)(D) and 52.79(a)(1)(vi) cannot reasonably be compromised by the DBT for radiological sabotage; or
- 3) The plant features include inherent reactor characteristics combined with engineered safety and security features that allow for facility recovery and mitigation strategy implementation if a target set is compromised, destroyed, or rendered nonfunctional, such that offsite radiological consequences are maintained below the reference values defined in 10 CFR 50.34(a)(1)(ii)(D) and 52.79(a)(1)(vi).

Performance Criteria



Proposed Approach

- Alternative to the prescribed requirement in 10 CFR 73.55(k)(5)(ii) that the number of armed responders shall not be less than ten
- Alternative to the prescriptive requirements for a secondary alarm station in:
 - 10 CFR 73.55(i)(2) [two continuous staff alarm stations]
 - 10 CFR 73.55(i)(4)(i) [single act cannot disable both]
 - 10 CFR 73.55(i)(4)(ii)(F) [cannot change alarm status or access controls without two alarm operators]
 - 10 CFR 73.55(i)(4)(iii) [new operating reactors must be equipped with two alarm stations]

Additional Potential Areas for Consideration

- The staff is seeking input from the public on whether the performance criteria identified above should be applied to any additional prescriptive requirements, for example those found in:
 - 10 CFR 73.55(e) [Physical barriers]
 - 10 CFR 73.55(i) [Detection and assessment systems]
 - 10 CFR 73.55(j) [Communications requirements]
 - 10 CFR 73.55(k) [Response requirements]

Open Session / Request Feedback

Next Steps

- Proposed Rule and Draft Guidance
 - Provide to the Commission in January 2021
 - Issue for public comment in 2021

- Final Rule and Final Guidance
 - Provide to the Commission in May 2022

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