

# Public Meeting to Discuss the NRC Staff's Consideration of Options for a Potential Rulemaking on Security for Independent Spent Fuel Storage Installations

May 24, 2022

# Purpose of this meeting

- This is a Comment-Gathering Meeting.
- Discuss the U.S. Nuclear Regulatory Commission (NRC) staff's development of an options paper for the Commission regarding security for independent spent fuel storage installations (ISFSIs).
- At the appointed time, attendees will have the opportunity to ask questions and/or make comments about the options we're considering and the evaluation criteria we've developed; however, the NRC will not provide written responses to comments or questions raised.

# Key Messages

- Staff is evaluating the pros and cons of multiple options to develop a recommendation to the Commission in response to Staff Requirements Memorandum (SRM)-SECY-19-0100, “Discontinuation of Rulemaking – Independent Spent Fuel Storage Installation Security Requirements” (ADAMS\* Accession No. ML21217A045).
- The existing regulatory framework provides reasonable assurance of adequate protection of public health and safety and the common defense and security.

\* NRC’s Agencywide Documents Access and Management System

# Background

- In SECY-07-0148, dated August 28, 2007 (ADAMS Accession No. ML080030050), the staff proposed to apply a risk-informed and performance-based approach to update the security requirements for ISFSIs.
  - Address potential security vulnerability identified in post-9/11 security assessments.
  - Improve regulatory clarity by implementing consistent requirements for general and specific ISFSI licensees regardless of ISFSI location.
  - Apply a “dose-based approach” to all ISFSIs in a new Title 10 *Code of Federal Regulations* (CFR) Part 73 regulation that would use an acceptance criterion equivalent to the 10 CFR 72.106 0.05-Sv (5-rem) dose limit for safety-based events.

## Background (cont.)

- On December 16, 2009, the staff published the draft regulatory basis for the proposed rulemaking to revise security requirements for facilities storing spent nuclear fuel and high-level radioactive waste (ADAMS Accession No. ML093280743).
- In SECY-10-0114, dated August 26, 2010 (ADAMS Accession No. ML101880013), the staff recommended reassessing the technical approach based on stakeholder comments prior to developing the final regulatory basis.
- In COMSECY-15-0024, dated September 11, 2015 (ADAMS Accession No. ML15229A231), the staff recommended re-evaluating whether rulemaking is warranted after five years, noting that the existing regulatory framework provides continued high assurance of adequate protection.

## Background (cont.)

- In 2018, the Commission directed that resources be allocated for the expedited ISFSI security rulemaking with the exclusive scope of codifying the requirements of the post-9/11 security orders.
- In SECY-19-0100, dated August 9, 2019 (ADAMS Accession No. ML19172A301), the staff requested Commission approval to discontinue the ISFSI security rulemaking.
- In SRM-SECY-19-0100, dated August 4, 2021 (ADAMS Accession No. ML21217A045), the Commission directed the staff to provide a notation vote paper with a full range of options for the ISFSI security rulemaking.

# Considerations for rulemaking options

- Stakeholder feedback on 2009 draft regulatory basis
- Insights from staff's efforts to develop an implementation framework for the dose-based approach
- Current and future ISFSI-security regulatory landscape
- Related NRC rulemaking activities
- Stakeholder feedback from this public meeting

# Initial options under consideration

- Option 1 – no action (status quo)
- Option 2 – codify orders only
- Option 3 – resume 2007 rulemaking to implement the dose-based approach
- Option 4 – perform future reassessment to identify rulemaking options for alternatives to the dose-based approach

## Option 1 – no action (status quo)

- Maintain the current regulatory requirements and the post-9/11 security orders, which provide reasonable assurance of adequate protection of public health and safety and the common defense and security.
- Continue to address the appropriate security requirements for new license applicants on a case-by-case basis.

## Option 2 – codify orders only

- Proceed with the ISFSI security rulemaking with the exclusive scope of codifying the requirements of the post-9/11 ISFSI security orders.
- Due to the sensitive nature of some of the security requirements, some provisions would need to be maintained via orders.
- Note: In SECY-19-0100, the staff determined that this limited-scope rulemaking is not necessary for adequate protection and would not be cost justified.

## Option 3 – resume 2007 rulemaking

- Implement a framework where ISFSI licensees would use the information provided by the NRC in combination with site-specific information to perform a calculation to ensure a 0.05-Sv (5-rem) dose limit is currently met, and, if not, to revise their protective strategy.
- Finalize the 2009 draft regulatory basis for the dose-based approach.
- Complete vulnerability assessments to define credible and reasonable security scenarios.
- Perform analyses to determine radiological release fraction values for all ISFSI cask types.
- Develop guidance for licensees on methods for performing the required dose assessments.

## Option 4 – perform future reassessment of alternative technical approaches

- Reassess alternative technical approaches to the dose-based approach to potentially identify technically viable, risk-informed rulemaking options for addressing any credible security vulnerability and to address any current concerns with regulatory clarity.
- Conduct further research using credible analysis methodologies to clearly define the risks associated with the potential security vulnerability for ISFSIs.
- Consider any implications arising from a final decommissioning rulemaking as well as current staff experience to reassess the concerns with regulatory clarity (e.g., “unnecessarily complex”) raised by staff in SECY-07-0148.
- Consider any implications arising from an enhanced security of special nuclear material rulemaking effort on security requirements for ISFSIs if spent nuclear fuel is included within the rulemaking’s scope.

# Criteria for evaluating options

In determining which option is best, the staff will apply attributes based on the NRC's Principles of Good Regulation

- Independence
- Openness
- Efficiency
- Clarity
- Reliability

# Current criteria for evaluating options

- Considers current threat environment
- Considers current operational experience
- Increases regulatory predictability and consistency
- Requires access to classified information
- Considers recurring costs for NRC and industry

## Planned next steps

- Staff will develop a SECY paper to the Commission with options and a recommendation on the path forward for ISFSI security with consideration of public input on the options and evaluation criteria.
- Staff plans to provide the SECY paper to the Commission by the end of September 2022.

## Questions?

- Link to NRC public meeting feedback form:  
<https://feedback.nrc.gov/pmfs/>
- Email feedback to [Johari.Moore@nrc.gov](mailto:Johari.Moore@nrc.gov)