

# Public Workshop (2 of 3)\*

Update to RG 1.183, Revision 1 – Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors

February 13, 2024
ADAMS Accession No. ML24040A168

### Introductions

Please ensure to identify yourself before speaking throughout the meeting.



## NRC Opening Remarks

Michael Franovich, Director

Division of Risk Assessment
Office of Nuclear Reactor Regulation



# Workshop Agenda

- Workshop Format
- Project Schedule
- Non-LOCA Release Fraction Calculations
- External Presentations (as applicable)
- Break
- Discussion





**86 FR 14964** – NRC Policy on Enhancing Participation in NRC Public Meetings

Comment-Gathering Meeting – Purpose is for the **NRC to obtain feedback** on regulatory issues and NRC actions – in this case for an update to RG 1.183

Focused on allowing participants **opportunity** to provide opinions, perspectives and feedback

NRC staff will take notes during meeting and use these notes to inform decision-making

Meeting summaries will include high-level summaries of notes NRC staff has taken

# Workshop Format



### RG 1.183 Update Stakeholder Involvement

- Public Workshops and Information Meetings
  - 3 Workshops (1<sup>st</sup> held on 1/9/24)
  - 2 Information Meetings
- Contact Project Lead
- Meeting Feedback
- ACRS Meeting approximately November 2024
- Draft Guide Comment Period approximately June 2025
  - Relationship with Proposed Increased Enrichment Rulemaking
    - Docket ID NRC-2020-0034, <u>www.regulations.gov</u>
    - Comment period on Proposed Increased Enrichment Rulemaking Regulatory Basis ended on January 22, 2024



# **Project Schedule**

Milestone	Tentative Completion
Public Workshops* and Information Meetings**	January 2024 – April 2024
DG Internal Review begins	June 2024
DG Internal Review completed	October 2024
Pre-Decisional DG Publicly Available to Support ACRS Briefings	November 2024
ACRS Briefings (Staff to respond as needed)	November 2024
Increased Enrichment Proposed Rule package to Commission (will include DG referenced in SECY paper)	December 2024
DG Available for Public Comment via Proposed IAW Increased Enrichment Rulemaking SECY	June 2025 (Estimated)

<sup>\*</sup> The term "Workshop" means a Comment-Gathering Meeting as described in the NRC's policy statement on public meetings (see 86 FR 14964)

<sup>\*\*</sup> The term "Information Meeting" means NRC will inform attendees and allow questions (see 86 FR 14964)



# Non-LOCA Release Fractions Calculations

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### Overview - Non-LOCA Release Fractions

NRC Staff are currently performing calculations with FAST\*, version 1.2 to revise Tables 3 and 4 of RG 1.183 Rev. 1

- Calculations will consider release fraction examples for:
  - 10x10 BWR assembly
  - 14x14 PWR assembly
  - 17x17 PWR assembly
- Preliminary results to be presented during the March workshop

<sup>\*</sup> FAST (<u>Fuel Analysis under Steady-State and Transients</u>) is an analytical tool that calculates the thermal-mechanical behavior of nuclear fuel when given power and boundary conditions. <a href="https://fast.labworks.org/file-download/download/public/636">https://fast.labworks.org/file-download/download/public/636</a>



### Assumptions - Non-LOCA Release Fractions

The revised Tables 3 and 4 of RG 1.183, Revision 1 will be determined using the following assumptions:

- 75 GWd/MTU burnup
- 6% enrichment
- Revised power history to cover new burnup range and similar integrated power
- Uses ANS 5.4 Standard and procedure from Appendix I of RG 1.183,
   Revision 1

The NRC Staff welcomes opinions, perspectives and feedback regarding the approach or assumptions being used to revise Tables 3 and 4 of RG 1.183, Revision 1



# External Presentations



## **Break**



# Discussion

### RG 1.183 Update Stakeholder Involvement

### - Reminder -

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### Contacts



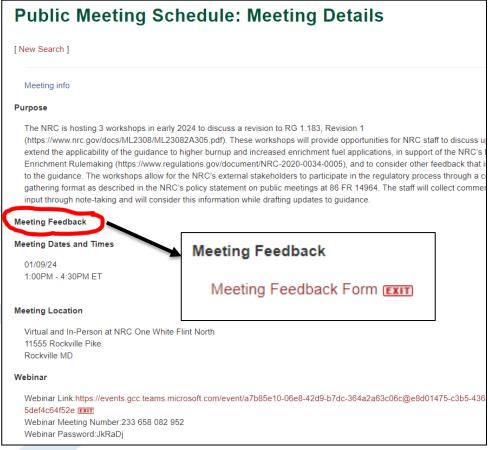
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How did we do?

https://www.nrc.gov/pmns/mtg?do=details&Code=20231392