

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

April 28, 2025

| MEMORANDUM TO: | Michael Waters, Acting Division Director Division of Preparedness and Response Office of Nuclear Security and Incident Response |
|----------------|--|
| FROM: | Cindy Rosales-Cooper, Acting Chief signal Production Signed by Rosales-Cooper, Policy and Oversight Branch Division of Preparedness and Response Office of Nuclear Security and Incident Response |
| SUBJECT: | SUMMARY OF MARCH 5, 2025, NRC PUBLIC WORKSHOP ON THE EMERGENCY PREPAREDNESS FOR |

On March 5, 2025, the U.S. Nuclear Regulatory Commission (NRC) staff held a virtual public workshop on emergency preparedness for advanced reactors. The workshop consisted of presentations from NRC staff followed by a question-and-answer period and a request for topics for future workshops.

ADVANCED REACTORS

Enclosures:

- 1) Summary of NRC Public Workshop: Emergency Preparedness for Advanced Reactors
- 2) List of Attendees

CONTACT: Kylar Coleman-Foley, NSIR/DPR/POB

SUBJECT: SUMMARY OF MARCH 5, 2025, NRC PUBLIC WORKSHOP ON EMERGENCY PREPAREDNESS FOR ADVANCED REACTORS

DATED: April 28, 2025

DISTRIBUTION: PUBLIC

ADAMS Accession Nos. Package, ML25092A114 Meeting Notice, <u>ML25044A448</u> Meeting Presentation, ML25064A348 Meeting Summary, ML25093A224

| OFFICE | NSIR/DPR/POB | NSIR/DPR/POB/PM | NSIR/DPR/POB/PM | NSIR/DPR/RLB | NSIR/DPR |
|--------|-------------------|-----------------|-----------------|--------------|----------|
| NAME | K. Foley | C. Murray | E. Schrader | J. Herrea | T. Smith |
| DATE | 04/09/2025 | 04/09/2025 | 04/11/2025 | 04/17/25 | |
| OFFICE | NSIR/DPR/POB/BC | NSIR/DPR | | | |
| NAME | C. Rosales-Cooper | | | | |
| | | | | | |
| DATE | 04/28/2025 | | | | |

OFFICIAL RECORD COPY

SUMMARY OF NRC PUBLIC WORKSHOP: EMERGENCY PREPAREDNESS FOR ADVANCED REACTORS

| DATE AND TIME: | March 5, 2025, 9:00 AM – 12:00 PM |
|----------------|-----------------------------------|
| LOCATION: | Virtual Webinar |

MEETING PARTICIPANTS: Enclosure 2

SUMMARY

On March 5, 2025, staff from the Division of Preparedness and Response (DPR) in the Office of Nuclear Security and Incident Response (NSIR) held a virtual public workshop to discuss emergency preparedness (EP) for advanced reactors.

The purpose of the meeting was to: 1) have NRC staff explain the NRC's approach to EP for advanced reactors; 2) discuss lessons learned from licensing experience; 3) update the public on the status of relevant EP rulemakings and EP-related guidance; 4) answer questions from stakeholders and solicit feedback for future workshops. The NRC staff presentations are summarized below and are publicly available in ADAMS (ML25064A348).

NRC staff presented on a variety of topics encompassing all aspects of EP for advanced reactors. The first presentation, *NRC approach to emergency preparedness* set the foundation for follow-on topics. The staff explained the purpose of EP as part of the NRC philosophy of defense-in-depth and described how risk-informed, performance-based EP regulations are consistent with long standing EP policy. The next presentation, *Applying Lessons Learned from Licensing Experience,* focused on key considerations for emergency preparedness in licensing applications. NRC staff emphasized the need for applicants and licensees to ensure the capability to implement and recommend protective actions—as required by regulation—even when the Emergency Planning Zone (EPZ) does not extend beyond the site boundary.

Additionally, NRC staff highlighted the importance of a rigorous justification when using probabilistic risk assessment (PRA) for EPZ determinations, ensuring that low-frequency but high-consequence events are not excluded, but are appropriately risk-informed. The presentation concluded by underscoring the benefits of referencing NRC-endorsed guidance to strengthen applications and mitigate regulatory uncertainty. If alternative methods are used, applicants must ensure the approach is well-supported to avoid potential licensing delays. The third presentation covered the status of EP rulemakings relevant to advanced reactors. This was followed by an update of key EP guidance activities, the enhancements to Regulatory Guide 1.242, and the ADVANCE Act implications for micro-reactor EP. The final presentation covered the research currently being conducted to support updates to EP guidance.

The NRC staff held a public question and answer session and the staff requested topics for future EP presentations and workshops.

ACTION ITEMS

During the workshop, attendees requested access to the NRC presentation materials. The presentation has been uploaded and declared in ADAMS as publicly available, and published on the official meeting notice (ADAMS Accession No. ML25064A348).

The following future workshops were suggested: 1) Guidance on Emergency Action Level Development, 2) Guidance on the Spectrum of Accident Selection, 3) Guidance on Emergency Planning Zone Determinations for Advanced Reactors

PRINCIPAL CONTRIBUTORS

Todd Smith, Senior Level Advisor, Division of Preparedness and Response, NRC/NSIR/DPR Eric Schrader, Emergency Preparedness Specialist, NRC/NSIR/DPR Charles Murray, Emergency Preparedness Specialist, NRC/NSIR/DPR Edward Robinson, Senior Emergency Preparedness Specialist, NRC/NSIR/DPR

List of Attendees

<u>Name</u>

Kylar Coleman-Foley Edward Robinson Cindy Rosales-Cooper Eric Schrader Todd Smith Charles Murray Michael Waters Mike McCoppin Jessie Quichocho Jeffrey Herrera Jino Young, David Jan Mazza Nicole Schlichting **Dwayne Myal** Teresa Gildersleeve Thomas Wood VI Doremus, Rick (INPO) McCallum, Julianne Robert Sandford Perkins, Susan Daigle, David Louis Robert Sandford Brandon Hartle Tiffany Long Keith Miller Marty Frato Williams, Edith Jessica Walker Doug Bucknell Lindsay Vance (TerraPower) Bergman, Jana Jamole Skeeter Webb, John Angelica Gheen Supna Zaidi Ryan Fayewicz Addison Hall John Egdorf - Proactive Planning LLC Khan Mosin

Nadir Chaudhry Thornsbury, Eric Facemire, Jon Doug (NuScale) Ramachandran Subbaratnam CathieAa Grabaskas, Dave Williamson, Timothy G Taylor, Gina **Bob Beall** Michelle Hart White, Eric Chapin, Clifford (DPS) Matis, Lisa Johnson, Robyn Edwin Lyman Matt Osborne Edwin Lyman Empey, Michael Ben Chen (X-energy) Shahrokshi Farshid (FRA-CORP) **Robert Fisher** Timothy Polich | RoPower James Ways John Egdorf - Proactive Planning LLC Monahan, Jill S. Dr. Deb Luchsinger Jessup, William T Zach Gran William Kennedy Vamvakias, Brian (DSHS) Sean O'Leary Spalding, Amanda J Bryson Roberson Grand Teton Travis Chapman | BWXT OHehir, David J (HEALTH) Timothy Drzewiecki Andrew Brenner Teresa Gildersleeve Nanette Valliere Maggie Chauhan Jason Albert Christensen Mory Diané D Schroeder Sterdis, Andrea L

Jeff Gromatzky Lorin Young michael norris Gregoire, Donald W. Skutt, David Joy Jiang Devette, Kevin Chris Courtenay (TerraPower) Nee, Matthew J. Schreier, Gabrielle (GE Vernova) Kenneth Mott Peter Okrasa Brice Bickett **Nicole Fields** Caty Nolan Conner, Teri M D Gregoire Jim Tomkins James Drabble Costello, Cynthia A (HEALTH) Don Gregoire Matt Featherston, X-energy Buman, Daniel E. Hutchins, Harley D Beth Dalick- TerraPower Tyler Cox Cliff Acosta PJ Seel Purvis, James John B. McLean Frank Akstulewicz Tubbs, Brenda Justin Wearne Henderson, Ryan Donald Matthew Nee Joy Jiang - The Breakthrough Institute Matthew Nee Narut, Noah Ingrid Nordby MS Graham Consultants Clark Shurtleff Art Zaremba Wilt. Michael C Malinowski, Adam D. Ben Leopardo Miguel Hernandez

Anthony Jones Williams, Michael Barry Westreich Dan Buman Adam Stein Papraniku, Ruben [DEP] Spencer Toohill Kersey, Nikesha Yoshinori Takechi_NRA Japan Melissa Darlington TerraPower Jonathan Fiske Salman Haq Tina Ghosh Adam Stein Norwood, Michael (GE Vernova, consultant) Chris Courtenay (TerraPower) (Unverified)