UNITED STATES
NUCLEAR REGULATORY COMMISSION
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July 15, 2020

MEMORANDUM TO: John P. Segala, Chief
Advanced Reactor Policy Branch
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

FROM: Joseph M. Sebrosky, Senior Project Manager ***/RA/***
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SUBJECT: SUMMARY OF JUNE 12, 2020, PUBLIC MEETING TO DISCUSS ADVANCED REACTOR CONTENT OF APPLICATION PROJECT

On June 12, 2020, the U.S. Nuclear Regulatory Commission (NRC) held a Category 2 public meeting with stakeholders, to discuss the advanced reactor content of application project (ARCAP). The meeting notice is available in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. ML20163A149 and the presentation slides are available at ADAMS Accession No. ML20162A197. This was a teleconference meeting, and an attempt was made to capture a list of the attendees as they called into the meeting. Enclosure 1 provides the attendees for the meeting as captured by the operator that helped to facilitate the meeting.

Meeting Highlights

Discussion of ARCAP Concepts

A key ARCAP concept is the use of performance-based approaches that are described in current guidance such as Draft Guide (DG) 1353, "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," (ADAMS Accession No. ML18312A242) and the recently issued final version of this document, Regulatory Guide (RG) 1.233, dated June 2020 (ADAMS Accession No. ML20091L698). Both guidance documents describe performance-based approaches for the content of an application.

The NRC staff further noted that the performance-based approach outlined in RG 1.233 is consistent with the guidance for NRC staff reviews found in Part 2 to the Introduction to NUREG-0800 for light water small modular reactors dated January 2014 (ADAMS Accession No. ML13207A315). These guidance documents encourage the NRC staff to consider performance-based approaches, which can be used to inform the appropriate level of detail in an application.

Applying Performance-Based Concepts

For the next portion of the meeting the NRC staff and its contractor, Idaho National Laboratory (INL), described how the ARCAP draft annotated outline Chapter 8 (control of effluents) has been further examined and refined. Draft annotated outline chapter 8 was refined using a more performance-based approach to improve overall project alignment among the integrated scope and purpose of the industry-led technology inclusive content of application project (TICAP) and ARCAP. The NRC staff and INL described the following three different approaches for ARCAP Chapter 8:

- Approach 1 - Example ARCAP chapter 8 guidance based on dialogue from April 22, 2020 public meeting with stakeholders (see meeting summary dated May 5, 2020 (ADAMS Accession No. ML20119A484),

- Approach 2 - Reduced safety analysis report (SAR) content based on a performance-based approach with compliance demonstrated in the application, and

- Approach 3 - Limited SAR content based on a performance-based approach with compliance not demonstrated in the application.

The above approaches are described more fully in a memorandum dated May 28, 2020 (ADAMS Accession No. ML20150A277) that was referenced in the June 12, 2020, meeting notice. The example approaches provided during the meeting focused on SAR Chapter 8 of the annotated outline but could also be applied to other related application documents such as SAR Chapter 9 (Control of Occupational Doses), the Offsite Dose Calculation Manual, and the radiation protection program. The NRC staff and INL noted that there were other parts of an application, outside of the TICAP portion of an application (i.e., generally those parts focused on primary safety criteria, licensing basis event selection, and classification of structures, systems and components) that could apply the example performance-based approach developed for Chapter 8 of the draft annotated outline.

Industry Feedback on ARCAP Annotated Outline

The Nuclear Energy Institute (NEI), and the U.S. Nuclear Industry Council (USNIC) provided feedback on the NRC-developed ARCAP draft annotated outline as noted in the presentation slides for the meeting. Both organizations saw benefit to more fully developing performance - based approach 3 described above. Both organizations also stated that near-term construction permit guidance that included light-water small modular reactors (SMRs) should be developed.

Enclosure:
Attendance List

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ADAMS Accession No.: ML20195B104 ***via e-mail**

OFFICE	NRR/DANU/UARP/PM *	NRR/DANU/UARP/BC *
NAME	JSebrosky	JSegala
DATE	7/15/2020	7/15/2020

OFFICIAL RECORD COPY

June 12, 2020, Public Meeting to Discuss Advanced Reactor Content of Application Project Attendance List

NAME	AFFILIATION	NAME	AFFILIATION
John Segala	NRC/DANU/UARP	Jeff Merrifield	Pillsbury Law Firm
Eric Oesterle	NRC/DANU/UARP	Cyril Draffin	US Nuclear Industry Council
Bill Reckley	NRC/DANU/UARP	Chantal Morin	Canadian Nuclear Safety Commission (CNSC)
Amy Cubbage	NRC/DANU/UARP	Nick Shykinov	CNSC
Joe Sebrosky	NRC/DANU/UARP	Farshid Shahrokhi	Framatome
Jim Kinsey	Idaho National Laboratory (INL)	Martin Owens	GE Hitachi
Wayne Moe	INL	Juswald Dedovi	GE
Tom Hicks	INL	Darrell Gardner	Kairos Power
Tom King	INL	Peter Hastings	Kairos Power
Marc Nichol	Nuclear Energy Institute (NEI)	Dennis Williford	NuScale Power
Kati Austgen	NEI	Caroline Cochran	Oklo
Mike Tschiltz	NEI	John Hanson	Oklo
Martin O'Neill	NEI	Pete Gaillard	TerraPower
Amir Afzali	Southern Company	Daniel Carlton	Terrestrial
Brandon Marlow	Southern Company	Jill Monahan	Westinghouse
Brandon Waits	Southern Company	Paul Wick	Westinghouse
Ben Carmichael	Southern Nuclear	Travis Chapman	X Energy
Jason Redd	Southern Nuclear	Canju Circle	Argonne National Laboratory
Steven Nesbit	LMNT Consulting	Pramab Samanda	Brookhaven National Laboratory
John Monninger	NRC/NRR/DANU	Jason Christensen	INL
Jordan Hoellman	NRC/NRR/DANU/UARP	David Holcomb	Oak Ridge National Laboratory (ORNL)
Nan Valliere	NRC/NRR/DANU/UARP	Ali Abib	PNNL
Juan Uribe	NRC/NRR/DANU/UARP	Bruce McDowell	PNNL
Maryam Khan	NRC/NRR/DANU/UARP	Luba Hamilton	PNNL
Michelle Hayes	NRC/NRR/DANU/UART	Donald Helton	NASA
Ian Jung	NRC/NRR/DANU/UART	Somouruche Mirmiran	Fennovoima
Chris Van Wert	NRC/NRR/DANU/UART	Boyan Petrovich	Georgia Institute of Technology
Alyssa Beasley	NRC/NRR/DANU/UART	Donald Williams	Excel Engineering
Carolyn Lauron	NRC/NRR/DNRL/NRLB	Ed Wallace	GNBC
Allen Hiser	NRC/NRR/DNRL	Edward Davis	Pegasus Group

Enclosure

NAME	AFFILIATION	NAME	AFFILIATION
Dave Rudland	NRC/NRR/DNRL	Nicholas McMurray	Clear Path
Joseph Ashcraft	NRC/NRR/DEX/EICA	Frank Schaaf	ASME
Bob Fitzpatrick	NRC/NRR/DEX/EENB	Prasad Kadambi	Consultant
Wieju Wang	NRC/NRR/DEX/EICA	Nicolas Jenner	IRSN
Eric Bowman	NRC	Jana Bergman	Curtiss-Wright
Shakur Walker	NRC/COMM/OCMDW	Keith Consani	NIST
Andrew Yang	NRC/RES/DE/ICEEB	Mike Mayfield	Self
Scott Bussey	OCHCO/ADHRTD/RTTB	Dave Goodman	KNNO
Derrick Widmayer	NRC/ACRS	Dennis Henneke	Public
Scott Clawson	Morgan Lewis and Bachius	Emmit Hennek	Public
Frank Akstulewicz	Alton	Alan Levin	Public
John Gaffigan	Public	Michael Howard	Zachary Nuclear