



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

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 Sebrosky, Senior Project Manager **/RA/**
Advanced Reactor Policy Branch
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF JUNE 11, 2020, PUBLIC MEETING TO DISCUSS
TECHNOLOGY INCLUSIVE CONTENT OF APPLICATION PROJECT

On June 11, 2020, the U.S. Nuclear Regulatory Commission (NRC) held a Category 2 public meeting with stakeholders, to discuss the industry-led technology inclusive content of application project (TICAP). The meeting notice is available in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. ML20162A017 and the presentation slides are available in ADAMS at Accession No. ML20161A350. 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.

Southern Nuclear (Southern) provided the current status of TICAP. Topics for the meeting included:

- More detailed discussion of the industry-developed licensing modernization project (LMP)-based safety case
- Industry-developed draft annotated outline for an application following the TICAP approach
- Intention to pilot the LMP-based safety case and the annotated outline for three designs in the summer of 2020

Regarding the LMP-based safety case, the NRC staff committed to providing comments to Southern on their approach in future correspondence. Subsequent to the meeting the NRC staff captured its comments in an email dated June 24, 2020, that is publicly available in ADAMS Accession No. ML20176A480. Southern and the NRC staff agreed that there would be more frequent meetings on TICAP and that the items that the NRC staff identified to Southern would be a topic of a future discussion.

Regarding the industry- developed draft annotated outline, Southern provided an outline for the final safety analysis report (FSAR) portion of an application based on the LMP approach.

The industry-developed FSAR outline is organized into 11 chapters. The staff previously proposed an FSAR outline as part of the advanced reactor content application project (ARCAP) that was organized into 14 chapters as described in NRC's "Updated Draft Outline for Licensing Modernization Project Advanced Reactor License Applications," dated April 15, 2020 (ADAMS Accession No. ML20107J565). The NRC's updated draft outline was discussed in an April 22, 2020, public stakeholder meeting as documented in a May 5, 2020, meeting summary (see ADAMS Accession No. ML20119A484). The staff's updated draft outline includes a proposed FSAR structure for both LMP-based chapters and non-LMP-based chapters while the industry-proposed FSAR structure is based solely on LMP-based chapters. The NRC staff and industry intend to discuss the structure of the LMP-based FSAR chapters in future meetings.

Southern noted that industry intends to pilot the LMP-based safety case and the annotated outline for three designs in the summer of 2020. The developers that have expressed interest in the pilot include:

- General Electric – Prism Design – Solid fuel in a pool of coolant
- Westinghouse Electric Company – A micro reactor design – Solid fuel, heat pipe cooled
- Kairos Power – fluoride salt-cooled solid TRISO pebble bed – based fuel

The planned start date for the pilot projects are August of 2020. Southern indicated that there was the potential for NRC staff to observe the pilot projects. The NRC staff noted that observing the pilot projects would be helpful and agreed to work with industry to try to make the appropriate arrangements to observe them.

Enclosure:
Attendance List

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ADAMS Accession No.: ML20190A217***via e-mail****NRC-001**

OFFICE	NRO/DANU/UARP/PM	NRO/DANU/UARP/BC	NRO/DANU/UARP/PM
NAME	JSebrosky*	JSegala*	JSebrosky*
DATE	7/15/20	7/15/20	7/15/20

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June 11, 2020, Public Meeting to Discuss Technology Inclusive Content of
Application Project Attendance List

NAME	AFFILIATION	NAME	AFFILIATION
Amir Afzali	Southern Company	Marc Nichol	Nuclear Energy Institute (NEI)
Frank Akstulewicz	Industry Consultant - TICAP	Kati Austgen	NEI
John Segala	NRC/DANU/UARP	Mike Tschiltz	NEI
Bill Reckley	NRC/DANU/UARP	Jeff Merrifield	Pillsbury Law Firm
Amy Cabbage	NRC/DANU/UARP	Cyrial Draffin	US Nuclear Industry Council
Joe Sebrosky	NRC/DANU/UARP	Chantal Morin	Canadian Nuclear Safety Commission (CNSC)
Eric Oesterle	NRC/DANU/UARP	Nick Shykinov	CNSC
Jim Kinsey	Idaho National Laboratory (INL)	Kevin Lie	CNSC
Tom Hicks	INL	Farshid Shahrokhi	Framatome
Tom King	INL	Dennis Henneke	GE Hitachi
Wayne Moe	INL	Juswald Dedovi	GE
Brandon Chisholm	Southern Company	Darrell Gardner	Kairos Power
Brandon Waits	Southern Company	Pete Gaillard	TerraPower
Ben Carmichael	Southern Nuclear	Jill Monahan	Westinghouse
Carl Flemming	Southern Company Consultant	Rick Pace	Westinghouse
Jason Redd	Southern Nuclear	Travis Chapman	X Energy
Paul Hayes	Independent Contractor with Southern Nuclear	Pramab Samanda	Brookhaven National Laboratory
Steven Nesbit	LMNT Consulting	Jason Andreus	INL
Rob Taylor	NRC/NRR	Jason Christensen	INL
John Monninger	NRC/NRR/DANU	David Holcomb	Oak Ridge National Laboratory (ORNL)
Brian Smith	NRC/NRR/DANU	George Flanagan	ORNL
Jordan Hoellman	NRC/NRR/DANU/UARP	Willis Poore	ORNL
Nan Valliere	NRC/NRR/DANU/UARP	Bruce McDowell	PNNL
Juan Uribe	NRC/NRR/DANU/UARP	Donald Helton	NASA
Maryam Khan	NRC/NRR/DANU/UARP	Alex Runner	Oklo
Michelle Hayes	NRC/NRR/DANU/UART	Forouche Miriran	Fennovoima
Ian Jung	NRC/NRR/DANU/UART	Boyan Petrovich	Georgia Institute of Technology
Stu Magruder	NRC/NRR/DNRL/UARL	Andy Zack	US Senate
Ismael Garcia	NRC/NRR/DEX	Alex Hashemian	ANS Corporation
Joseph Ashcraft	NRC/NRR/DEX/EICA	Frank Schaaf	ASME
Carolyn Lauron	NRC/NRR/DNRL/NRLB	Prasad Kadambi	Consultant
Eric Bowman	NRC	Kurt Harris	Belis Energy
Bernard Dittman	NRC/RES/DE/ICEEB	Halin Alsaed	Environuclear

Enclosure

NAME	AFFILIATION	NAME	AFFILIATION
Julie Ezell	NRC/OGC	Michael Howard	Zachary Nuclear
Scott Bussey	OCHCO/ADHRTD/RTTB	Nicolas Jenner	IRSN
Tammy Morin	Holtec International	Shakur Booker	Samson
Richard Orthen	Public	Ed Wallace	Public
Alan Levin	Public	Mike Mayfield	Self