



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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May 5, 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/
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SUBJECT: SUMMARY OF APRIL 22, 2020, PUBLIC MEETING TO DISCUSS
ADVANCED REACTOR CONTENT OF APPLICATION

On April 22, 2020, the U.S. Nuclear Regulatory Commission (NRC) held a Category 2 public meeting with stakeholders, to discuss the form and content of an application for advanced reactors and to discuss an Oak Ridge National Laboratory (ORNL) draft report on Molten Salt Reactor (MSR) Fuel Qualification Methodology. The meeting notice is available in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. ML20113E783 and the presentation slides are available in ADAMS at Accession No. ML20112F478. Additional background material associated with the meeting include:

- ORNL draft report on MSR Fuel Qualification Methodology (ADAMS Accession No. ML20072M206),
- Industry comments dated April 10, 2020, (ADAMS Accession No. ML20107H849) on the NRC's version of the "Draft Outline for Licensing Modernization Project Advanced Reactor License Applications," that was discussed during a December 12, 2019, public meeting, and
- NRC's "Updated Draft Outline for Licensing Modernization Project Advanced Reactor License Applications," dated April 15, 2020 (ADAMS Accession No. ML20107J565).

This was a teleconference meeting. Enclosure 1 provides the agenda with the list of presenters for each topic.

The meeting was divided into two segments with the first segment discussing the status of the DOE-funded and Southern Company-led technology inclusive content of application project (TICAP) and the NRC's associated advanced reactor content of application project (ARCAP). The second segment of the meeting involved discussion of the ORNL draft MSR Fuel Qualification Methodology Report and Southern's perspective on such a report (as described by a TerraPower representative).

During the TICAP/ARCAP portion of the meeting, Southern and the NRC staff provided the status of the efforts in this area. Southern's presentation included feedback on an NRC proposed outline for an advanced reactor application that was discussed during a December 12, 2019, public meeting. In addition to the feedback provided during the meeting, Southern provided more detailed feedback in a note dated April 10, 2020 (see above). Prior to this meeting, the NRC provided Southern with an updated outline with additional detail dated April 15, 2020 (see above). There was a recognition that a future meeting was needed to discuss Southern's comments and the updated outline. Southern and the NRC indicated that a meeting in late May or early June could be possible. The staff stated that such a meeting will be publicly noticed.

During the NRC's presentation on ARCAP a series of questions was posed by the staff to solicit feedback from stakeholders on the direction of this project. The NRC staff received feedback during the meeting on ARCAP from meeting participants representing the Union of Concerned Scientist, Nuclear Energy Institute, Oklo, and the U.S. Nuclear Industry Council. The feedback ranged from a lack of confidence in the licensing modernization project (LMP), which is the basis for much of the effort, to the ARCAP effort not being well defined and proceeding at too fast of a pace. There were also several stakeholders that supported the ARCAP effort. The staff stated that future meetings are envisioned on the topic and that it will continue to solicit stakeholder feedback on ARCAP.

For the second segment of the meeting ORNL provided an overview of their draft report and Southern (through TerraPower) provided its perspective on MSR fuel qualification. The NRC staff stated that the target for issuing the final ORNL report is July 2020. In order to meet this schedule comments are to be provided by May 15, 2020. The NRC staff also stated that comments on the ORNL draft report should be provided to Mike Poore at ORNL (email address: poorewpjii@ornl.gov) and Stewart Magruder at the NRC (email address: stewart.magruder@nrc.gov). Stakeholders were informed that the staff is considering developing a follow-on report to the draft report discussed during the meeting. The follow-on report would contain additional details and is envisioned to be at a level that it could be referenced in NRC-developed regulatory guidance.

Enclosure:

Agenda with the list of Presenters

SUBJECT: SUMMARY OF APRIL 22, 2020, PUBLIC MEETING TO DISCUSS ADVANCED
REACTOR CONTENT OF APPLICATION

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ADAMS Accession No.: ML20119A484***Via Email**

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DATE	4/30/2020	5/5/2020

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April 22, 2020, Public Meeting to Discuss Advanced Reactor Content of Application
Agenda with Presenters

Time	Topic	Speaker	Presenters	Organization
9:00 - 9:10 am	Opening Remarks	NRC	John Segala, and Joe Sebrosky	NRR/DANU/UARP
9:10 - 9:30am	Overview of Technology Inclusive Content of Application Project (TICAP)	Southern	Amir Afzali	Southern
			Steve Nesbit,	LMNT Consulting
9:30 -10:00 am	Status of TICAP Comments on the NRC's Proposed Outline	Southern	Amir Afzali	Southern
			Steve Nesbit	LMNT Consulting
10:00 -10:20 am	Updates on Proposed Outline for Content of Application Including Technical Specifications	NRC/INL	John Segala, Joe Sebrosky, Bill Reckley, Amy Cabbage, Stu Magruder, Eric Oesterle, Maryam Khan, and Jordan Hoellman	NRR/DANU
			Tom Hicks, Tom King, Wayne Moe, and Jim Kinsey	INL
10:20 - 10:40 am	Discussion of Licensing Modernization Project Based Safety Case	Southern	Amir Afzali, and Jason Redd	Southern
10:40 - 10:50 am	Break	All		
10:50 - 11:20 am	Status and Highlights of Draft Report on Molten Salt Fueled Reactor Fuel Qualification Methodology	NRC/ORNL	Stewart Magruder	NRR/DANU/UARL
			David Holcomb and George Flanagan	ORNL
11:20 - 11:45 am	Industry Presentation on Desired Outcomes on Molten Salt Fuel Reactor Content of Application	Southern	Amir Afzali	Southern
			Pete Gaillard	TerraPower
11:45 - 12:00 pm	General Discussion on Next Steps for Advanced Reactor Content of Application Project	All		