



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

July 2, 2018

MEMORANDUM TO: John P. Segala, Chief  
Advanced Reactor and Policy Branch  
Division of Safety Systems, Risk Assessment and  
Advanced Reactors  
Office of New Reactors

FROM: William D. Reckley, Senior Project Manager */RA/*  
Advanced Reactor and Policy Branch  
Division of Safety Systems, Risk Assessment and  
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Office of New Reactors

SUBJECT: SUMMARY OF JUNE 5-6, 2018, PUBLIC MEETING  
TO DISCUSS LICENSING MODERNIZATION PROJECT

On June 5 and 6, 2018, the U.S. Nuclear Regulatory Commission (NRC) held a Category 2 public meeting with representatives from Southern Company, National Laboratories, Nuclear Energy Institute (NEI), and other stakeholders to discuss the development of guidance documents supporting licensing advanced reactor designs (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18151A706). Enclosure 1 contains a list of meeting attendees and participants who joined via webinar. The primary topic of discussion was Draft Report Revision M of the Licensing Modernization Project (LMP) guidance document "Risk-Informed Performance-Based Guidance for Non-Light Water Reactor Licensing Basis Development" (ADAMS Accession No. ML18150A344).

Mr. Jason Redd, Southern Company, led the discussions on the LMP's current draft of the guidance for the developing licensing bases for non-light water reactors. Mr. Redd used the draft report (ADAMS Accession No. ML18150A344) to support discussions with a focus on changes since a meeting on April 2018 (ADAMS Accession No. ML18113A792). Enclosure 2 provides a list of topics discussed during the meeting and areas where the LMP plans to clarify the guidance document or is awaiting additional comments and questions from the NRC staff. The meeting ended with discussions related to LMP representatives and NRC staff preparing for a meeting of the Future Plants Designs Subcommittee of the Advisory Committee on Reactor Safeguards. The next public meeting on the guidance is tentatively planned for August 2018.

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Enclosures:  
1. List of attendees  
2. Discussion topics

SUMMARY OF JUNE 5-6, 2018, PUBLIC MEETING TO DISCUSS LICENSING  
MODERNIZATION PROJECT- DATED June 2, 2018

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**ADAMS Accession No.: ML18177A462**

**NRO-002**

<b>OFFICE</b>	NRO/DSRA	NRO/DSRA
<b>NAME</b>	WReckley	JSegala
<b>DATE</b>	07/02/2018	07/02/2018

**OFFICIAL RECORD COPY**

<b>Attendance List – Attended at least part of meeting in person</b>		
<b>Name</b>		<b>Organization</b>
Kevin	Coyne	NRC/NRO
Amy	Cubbage	NRC/NRO
Michelle	Hayes	NRC/NRO
Jan	Mazza	NRC/NRO
John	Monninger	NRC/NRO
Hanh	Phan	NRC/NRO
Bill	Reckley	NRC/NRO
John	Segala	NRC/NRO
Martin	Stutzke	NRC/NRO
Lucieann	Vechioli	NRC/NRO
Joe	Williams	NRC/NRO
Michelle	Gonzalez	NRC/RES
Steve	Kline	Bechtel
Prasad	Kadambi	Consultant
Jim	Kinsey	INL
Hiroki	Watanabe	JNRA
Kati	Austgen	NEI
Mike	Tschiltz	NEI
Amir	Afzali	Southern
Karl	Flemming	Southern
Jason	Redd	Southern
Ed	Wallace	Southern
Robin	Rickman	TEUSA
Jim	Gresham	Westinghouse
Doug	Weaver	Westinghouse

<b>Attendance List – Webinar Attendees</b>		
<b>Name</b>		<b>Organization</b>
Jana	Bergman	Curtiss Wright
John	Bolin	GA
Scott	Bussey	NRC/TTC
Jim	Chapman	
Caroline	Cochran	Oklo
Timothy	Crook	Transatomic
Suzanne	Dennis	NRC/RES
Donald	Dube	Jensen Hughes
Greg	Gibson	X-energy
Michelle	Gonzalez	NRC/RES
Peter	Hastings	Kairos Power
Mark	Holbrook	INL
Jim	Kinsey	INL
Steve	Kline	Bechtel
Jun	Liao	Westinghouse
Patrick	Looney	GE
Wayne	Moe	INL
Tomy	Nazario	NRC
JongSeuk	PARK	KINS
Paul	Rades	NRC
Pranab	Samanta	BNL
Nanette	Valliere	NRC/OCMSB
Doug	Weaver	Westinghouse
Staci	Wheeler	Alpha Tech Research Corp
Gregory	White	

Licensing Modernization Project  
Discussion Topics for Public Meeting, June 5-6, 2018

1. Ensure that Licensing Modernization Project (LMP) and Staff are aligned on the use of a Bibliography and Reference list; we want to ensure that our formatting is clear to NOT incorporate other documents by reference.
2. Complete LMP general design (GD)-specific Glossary of Terms for all the new or unique definitions and terminology needed. Coordinate terms and definitions with the U.S. Nuclear Regulatory Commission (NRC) Staff. Glossary should include an agreed upon list of items so that the Glossary definitions can be developed, agreed upon between industry and NRC Staff, and then included in the GD and updated working procedures.
3. Likewise, develop an 'Anti-Glossary' of terms that have proven often result in misunderstandings and revise Guidance Document as required.
4. Complete review of all Figures and supporting text for implementation process detail beyond what is endorsable by Regulatory Guide. This topic requires further discussion with the NRC Staff.
5. Additional discussion with the NRC Staff is needed to address the calculation of licensing basis events (LBE) consequences. The calculation of consequences is dependent on assumptions of distance (e.g., EAB or X meters), exposure times, demographics, meteorology, and protective actions. Discussion on detail and appropriate communication vehicle may be useful regarding how a designer may make conservative assumptions or otherwise represent site characteristics prior to an actual site being selected for deployment.
6. Need to clearly explain how the LMP process is intended to be flexible in the method of implementation. Need to address Maximum Hypothetical Hazard and "Robust Barrier" approaches. We believe such an approach is valid and executable under the LMP process however it is not yet clear how such approaches would be used to support selection of LBEs, safety classification of structures, systems and components (SSCs), SSC performance requirements, and evaluation of defense in depth adequacy. Industry and NRC should review the recent SHINE Medical Technologies precedent to further elaborate on this topic and how performance-based outcomes should be defined.
7. The SSC safety classification of SSC which protect safety related SSC from hazards such as tornado missiles, internal flooding, and external flooding needs further discussion between industry and NRC Staff.
8. External events is a topic requiring further industry and NRC discussion. For example, would assumptions for external events within design-basis events establish design basis earthquakes, flooding, wind loadings, etc. like current practices? How would mixture of methodologies between external hazard curves (e.g., for seismic) be used in combination with deterministic external hazards? In design phase, would conservative hazard curves or values be assumed and how would standardization be maintained? Seismic probabilistic risk assessment is needed for a design, but Seismic Margin Assessment does not fit within the LMP process as a stand-alone element.

9. Multi-module and multi-source (i.e. fission gas holdup tanks) topics need further discussion between industry and NRO Staff.
10. Use and role of 10 CFR 20 limits (i.e. 100 mrem) and the U.S. Environmental Protection Agency Protective Action Guidelines in the content of the F-C chart, impact on Emergency Planning, Emergency Planning Zone distances needs to be further discussed between industry and NRO Staff; these topics will likely be split but both fall under the general topic of radiological dose to workers and the public.
11. What guidance will be needed to implement a risk informed performance based (RIPB) framework from construction through decommissioning? Industry and NRO Staff need to discuss longer term controls – into plant operation and maintaining elements of this RIPB process that is different from the operating (deterministic) fleet. This is a forward-looking topic to generate discussion about other, future guidance needed for the Staff and industry.
12. LMP has sought to clarify all references to 10 CFR 50.69 in the Guidance Document to ensure that no link between the Guidance Document and the implementation of 10 CFR 50.69 to the operating fleet is inadvertently implied; LMP would like the Staff's feedback as to whether gaps remain.
13. LMP expects the Regulatory Guide endorsing the LMP guidance document to inform ALL of the 10 CFR 50.34 / 10 CFR 52.47 application content for new non-LWR licensing applications **\*that choose to follow the LMP process\*** – specifically in guiding the amount of content and level of detail for the different chapters of the preliminary safety analysis report or updated final safety analysis report. What actions additional guidance is needed from industry or the Staff to push the ball forward on this topic? Additional discussion between the industry and NRC Staff would be beneficial.