

SeabrookLANPEm Resource

From: Poole, Justin
Sent: Tuesday, August 22, 2017 1:37 PM
To: 'Browne, Kenneth'
Subject: RE: List of Attendees for Seabrook Public Meeting.
Attachments: 2017-8-24 Seabrook LAR Stage 3 Public Meeting - FINAL.pdf

Great. I'll put them in the system so getting through security should be easier. Attached are the staff's slides for the meeting. Did you plan on having anyone call in? If so how many so I can make sure I have a large enough bridgeline. Thanks.

*Justin C. Poole
Project Manager
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U.S. Nuclear Regulatory Commission
(301)415-2048*

From: Browne, Kenneth [mailto:Kenneth.J.Browne@nexteraenergy.com]
Sent: Tuesday, August 22, 2017 1:29 PM
To: Poole, Justin
Cc: Carley, Edward
Subject: [External_Sender] List of Attendees for Seabrook Public Meeting.

Justin,

Here is the list of expected Attendees supporting Seabrook:

Mike Collins-NEE
Ed Carley-NEE
Jackie Hulbert-NEE
Dr Said Bolourchi-SGH
Ryan Mones-SGH
John Simons-MPR
Jim Moroney -MPR
Steve Hamrick-NEE
Larry Nicholson-NEE
Ken Browne-NEE

Hearing Identifier: Seabrook_LA_NonPublic
Email Number: 1106

Mail Envelope Properties (b8e99598a8f54bc88e21a91860c68e9d)

Subject: RE: List of Attendees for Seabrook Public Meeting.
Sent Date: 8/22/2017 1:36:35 PM
Received Date: 8/22/2017 1:36:31 PM
From: Poole, Justin

Created By: Justin.Poole@nrc.gov

Recipients:
"Browne, Kenneth" <Kenneth.J.Browne@nexteraenergy.com>
Tracking Status: None

Post Office: HQPWMSMRS01.nrc.gov

Files	Size	Date & Time
MESSAGE	861	8/22/2017 1:36:31 PM
2017-8-24 Seabrook LAR Stage 3 Public Meeting - FINAL.pdf		1591357

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

Seabrook Station

License Amendment Request

“Stage 3” Methodology

Justin Poole, Project Manager, DORL, NRR

Bryce Lehman, Structural Engineer, DE, NRR

George Thomas, Senior Structural Engineer, DE, NRR

Agenda

- Issues with Current Stage 3 Methodology
- Staff Expectations for Methodology
- Path Forward
- Schedule Discussion

Stage 3 as Described in LAR

- Description in LAR of advanced techniques proposed to be used is high-level with no implementation details provided for staff to evaluate as a generic method of evaluation
- Includes methods whose implementation appear open to interpretation, with no specific applicability limitations, justification or acceptance criteria, and may be outside the design code (ACI 318-71)
- LAR notes that analysis will demonstrate compliance with ACI 318-71

Staff Concerns with Stage 3

- It is unclear how the methodology as described in the LAR could be consistently applied and similar results obtained
 - Significant decisions in the Containment Enclosure Building (CEB) calculation appear to be based on engineering judgement
 - Stage 3 uses iterative processes with no clear limitations

Staff Concerns with Stage 3

- Review of Containment Enclosure Building (CEB) calculation identified several general issues:
 - ACI 318-71 requirements for moment redistribution do not appear to be met or justified; approach used does not appear to be supported by accepted concrete codes
 - Acceptance criteria are not provided for the structural adequacy of sections to develop a plastic hinge
 - A limit on moment redistribution iterations is not provided
 - No guidance is provided on determining the threshold factor or under what circumstances it can be modified
 - No evaluation of serviceability limit state included under normal service load conditions that include ASR

Staff Expectations for Methodology

- The LAR or UFSAR mark-up should include sufficient detail to allow qualified engineer to follow the process through any Stage 3 calc
 - How ACI 318-71 requirements will be met and/or justification for alternatives and requirements that are not met
 - Guidance/criteria on when proposed analysis techniques and methods can be used
 - Limits on the use of iterative processes
 - Identified rebar strain limits under normal service conditions including ASR load

Path Forward:

Potential LAR Supplement

- Potential LAR supplement options:
 - Update LAR to include detailed, consistently applicable methodology; staff will review a sample of completed calculations
 - Approval of partial methodology (Stage 1 & 2); all final Stage 3 evaluations for NRC review and approval
 - Other options?
- Approach is up to NextEra

Impacts on Schedule

- Staff intends to review a sampling of completed Stage 1, 2 and 3 analyses
 - Sampling dependent on analysis complexity and issues identified
- Schedule dependent on analyses availability
 - Analyses should be approved and incorporated by NextEra prior to NRC review

Questions?