



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

December 22, 2017

LICENSEE: Duke Energy

FACILITY: Brunswick Steam Electric Plant, Units 1 and 2

SUBJECT: SUMMARY OF OCTOBER 26, 2017, SECOND PRE-SUBMITTAL MEETING WITH DUKE ENERGY REGARDING BRUNSWICK ADVANCED AREVA METHODS LICENSE AMENDMENT REQUEST (CAC NOS. MF9965 AND MF9966; EPID L-2017-LRM-0033)

On October 26, 2017, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Duke Energy Progress, LLC (the licensee). The meeting notice and agenda, dated October 13, 2017, are available in the Agencywide Documents Access and Management System (ADAMS) at Accession No. ML17297B803. A list of attendees is enclosed.

The purpose of this meeting was to continue the August 22, 2017, discussion (ADAMS Accession No. ML17286A122) on a proposal by the licensee to submit a license amendment request (LAR) to use Advanced AREVA ATRIUM 11 fuel and an associated methodology in Brunswick Steam Electric Plant (BSEP), Units 1 and 2.

With the use of slides (ADAMS Accession No. ML17297B789), Duke presented its approach and responded to the clarification questions from the NRC staff. Significant items discussed included the following:

- The licensee stated the planned LAR submittal date will be in September 2018, in order to support a decision in December 2018 on the ATRIUM 11 fuel transition. To support the new fuel cycle startup in April 2020, the licensee will need final approval of the LAR by February 2020. This new fuel design will provide additional safety margin as well as economic benefits for BSEP. However, design bases changes for this new fuel design require the submittal and NRC approval of a number of new methodologies.
- The AREVA Topical Report (TR) ANP-10345P for anticipated transient without scram instability (ATWSi) will be submitted in the fall of 2017 and it will be a key methodology supporting the LAR. AREVA intends to submit this TR with Brunswick's A10XM fuel as the reference fuel type. The licensee proposed requesting the NRC staff to accept this TR for review and make a process exception to allow the licensee to credit it in the September 2018 BSEP LAR in advance of the TR's approval. The NRC staff indicated that without seeing the actual TR first, any exception to the review process cannot be considered. Furthermore, the NRC staff clarified that TRs and LARs are reviewed under different internal processes:
 - TRs are reviewed under LIC-500 "Topical Reports Process" for subsequent LAR referencing. The final product of the NRC approval is a verification letter to the applicant to confirm the outcome of the Approve Version "-A" of the TR review that specifically states whether the TR is NRC approved for referencing in licensing actions. LIC-109, "Acceptance Review Procedures," provides the process and guidance for the NRC staff

to confirm that the TR submittal contains sufficient scope and depth to allow the NRC staff to efficiently review the TR for approval.

- LARs are reviewed under LIC-101 "License Amendment Review Procedures," which instructs the reviewer to ensure that a reference in a LAR to a staff-accepted approved version of the TR is appropriate for the subject change and its supporting analysis. LIC-109 is also used for the initial acceptance for review of the LAR.

Thus, accepting a LAR which references a TR that has not been approved is pre-mature and not consistent with the above processes. To support the licensee's schedule, the NRC staff is considering the following strategy:

- The NRC staff assigns the AREVA TR review a high priority so that most of the review can be completed by September 2018.
- The NRC staff assigns some of the AREVA TR reviewers to also review the BSEP LAR after its submittal.
- The licensee will submit a LAR that contains the identical AREVA TR methodology rather than referencing the TR that is not yet approved, in order to be consistent with the NRC processes. Parallel review of both documents will not be a total duplication of effort, because most of the reviewers for the ATWSi are assigned to both submittals.
- The licensee will closely monitor the AREVA TR review to ensure most of the issues are addressed to ensure a quality submittal in September 2018 for the NRC to review.
- Combining the above, the NRC staff should be able to inform the licensee shortly before the commercial decision date of December 2018 on the feasibility of completing the review by the requested date of February 2020.

The licensee acknowledged the NRC staff's feedback and will continue the pre-submittal dialog with the NRC staff.

No regulatory decisions were reached at this meeting. No member of the public called in to listen or provide comments to the staff after the business portion of the meeting; thus, no Public Meeting Feedback forms were received.

Please direct any inquiries to me at 301-415-8480 or Andrew.Hon@nrc.gov.



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Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-325 and 50-324

Enclosure:
List of Attendees

cc: Listserv

**Pre-submittal Public Meeting on October 26, 2017
Duke Energy and NRC Staff on Planned Brunswick License Amendment Request
Attendance List**

[illegible]

Enclosure

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*by email

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