From:	Richard Guzman
To:	Hipo Gonzalez
Subject:	Memo E-mail to File - Summary of September 7, 2022, Meeting with Dominion to Discuss Proposed Supplement to Spent Fuel Pool Criticality Safety Analysis (EPID L:2022-LRM-0059)
Date:	Wednesday, October 05, 2022 11:28:06 AM

Hipo,

For your information, shown below is a summary of the September 7, 2022, observation meeting with Dominion Energy Nuclear Connecticut, Inc. to discuss the licensee's planned supplement to the Spent Fuel Pool Criticality Safety Analysis at Millstone Power Station, Unit No. 3. This communication will be added to ADAMS as an official agency record and Listserv'd. Please contact me if you have any questions regarding this meeting.

Rich Guzman
Sr. PM, Division Operator Reactor Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Office: O-9C7 | Phone: (301) 415-1030
Richard.Guzman@nrc.gov

CATEGORY 1 PUBLIC MEETING WITH
DOMINION ENERGY NUCLEAR CONNECTICUT, INC. (DENC),
TO DISCUSS PROPOSED SUPPLEMENT TO SPENT FUEL POOL
CRITICALITY SAFETY ANALYSIS
MILLSTONE POWER STATION, UNIT NO. 3
PRE-APPLICATION MEETING
MEETING SUMMARY
SEPTEMBER 7, 2022
DOCKET NO. 50-423

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of Dominion Energy Nuclear Connecticut, Inc. (DENC, the licensee) held a public meeting via teleconference call on September 7, 2022, to discuss the licensee's planned alternative request for Millstone Power Station, Unit No. 3 (MPS3) related to the proposed supplement to the spent fuel pool (SFP) criticality safety analysis (CSA). The licensee's meeting slides are available in ADAMS at Accession No. ML22243A032. The licensee's presentation is summarized as follows:

Background

The licensee began the presentation with background on the (three) different types of SFP at MPS3: Region 1 (Boral poisoned, flux trap design), Region 2 (Boral poisoned, non-flux trap design, and Region 3 (Uncredited Boraflex, flux trap design). The licensee stated the current CSA which was based on the methodology per Nuclear Energy Institute (NEI) 12-16, Revision 3, was submitted in 2018 and approved by the NRC in 2019. The current CSA

takes credit for burnup and demonstrates that the burnable poison (BP) wet annular burnable absorber (WABA) bounds the integral fuel burnable absorber (IFBA) during depletion. However, the current CSA does not address the use of gadolinia as a BP. Therefore, since the licensee plans to implement a new fuel assembly design which uses the BP, gadolinia, a license amendment request is needed for approval to approve the revised CSA, updated to address depletion credit, justifying that gadolinia is bounded.

Proposed Resolution

The licensee intends to submit a supplement to the MPS3 CSA that (1) justifies through previous evaluation that the use of gadolinia BP is bounded by the current CSA's burnup credit analysis and (2) demonstrates the previous evaluation's applicability to MPS3. The proposed change will not involve any changes to the MPS3 Technical Specifications, and no credit is being taken for gadolinia in fresh fuel. Additionally, the scope of the submittal will not involve any calculations that would need to be added or revised to the current CSA. Specifically, the only change is to extend the burnup credit's bounds of applicability.

Proposed Justification

The licensee will provide a justification discussion relative to the following NRC endorsed guidance in Regulatory Guide (RG) 1.240:

- RG 1.240 endorses NEI 12-16, Revision 4
- NEI 12-16 states modeling no gadolinia is conservative during depletion
- NEI 12-16 references NUREG/CR-6760 and EPRI 3002008197
- The reports investigated the effects of gadolinia on burnup credit and concluded its use to be conservative
- The licensee will demonstrate that these findings are applicable to MPS3

Additionally, the licensee intends to include precedent submittals (namely, Prairie Island (2013) and Millstone Unit 2 (2016)) in their justification write-up to support that the effects of gadolinia on burnup credit and its use is conservative and applicable to MPS3.

Schedule

The licensee stated their planned submittal is on track and targeted for 4Q2022. DENC intends to request an approval date in 4Q2023 (i.e., one year from the submission date) to support implementation by the MPS3 spring 2025 (3R23) outage.

Conclusion

DENC completed its presentation with no open/unanswered questions from the staff and summarized its conclusion by stating that the depletion analysis in the current MPS3 SFP CSA bounds the effects associated with the use of gadolinia BP which is supported by (1) industry guidance that demonstrates gadolinia can conservatively be unmodeled in the depletion analysis and is applicable to MPS3, and (2) other licensee submittals that have been approved by the NRC are applicable to MPS3 and have also demonstrated gadolinia can conservatively be unmodeled in the depletion analysis.

No decisions were made regarding the acceptability of the licensee's proposed submittal.

There were no members of the public in attendance. To date, no public meeting feedback forms have been submitted through the NRC public meeting feedback system.

LIST OF ATTENDEES
OCTOBER 7, 2022, CATEGORY 1 PUBLIC MEETING WITH
DOMINION ENERGY NUCLEAR CONNECTICUT, INC. (DENC),
TO DISCUSS PROPOSED SUPPLEMENT TO THE SPENT FUEL POOL
CRITICALITY SAFETY ANALYSIS
MILLSTONE POWER STATION, UNIT NO. 3
DOCKET NO. 50-423

ATTENDEE	ORGANIZATION
Richard Guzman	U.S. Nuclear Regulatory Commission (NRC)
Kent Wood	NRC
Brandon Wise	NRC
Shayan Sinha	DENC
Craig Sly	DENC
Kasey Kennett	DENC
Timothy Olsowy	DENC
Daniel Beachy	DENC
Chris Wells	DENC
Jared Cantrell	DENC
James Stanley	DENC
Dean Rowe	DENC
Brian Vitiello	DENC