



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

November 17, 2021

LICENSEE: Union Electric Company

FACILITY: Callaway Plant, Unit No. 1

SUBJECT: SUMMARY OF OCTOBER 14, 2021, PARTIALLY CLOSED PRE-APPLICATION TELECONFERENCE WITH UNION ELECTRIC COMPANY REGARDING APPROVAL TO INSERT FRAMATOME'S GAIA FUEL ASSEMBLIES IN ITS CORE IN RELOAD QUANTITIES FOR CALLAWAY PLANT, UNIT NO. 1 (EPID L-2021-LRM-0099)

On October 14, 2021, an Observation pre-application meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Union Electric Company, dba Ameren Missouri (the licensee). The purpose of the meeting was to discuss, in advance, the licensee's intent to submit a license amendment request (LAR) to allow introduction of reload quantities of Framatome's GAIA fuel in the Callaway Plant, Unit No. 1 (Callaway) core. Currently, Callaway has four lead assemblies of Framatome's GAIA fuel loaded in the core for Fuel Cycle 25 in non-limiting positions. This meeting for the Callaway Vendor Qualification Program was intended to discuss all the licensing analyses required to support fuel reload transition to a new vendor. A portion of the meeting was closed to public participation because proprietary information was discussed. The meeting notice and agenda, dated September 22, 2021, are available in the Agencywide Documents Access and Management System (ADAMS) at Accession No. ML21265A272. Enclosed is a list of attendees at the meeting.

During the open session of the meeting, the licensee presented meeting slides, which can be found in ADAMS at Accession No. ML21271A612. The licensee covered some background on Callaway, and discussed the GAIA fuel assembly design description, operating experience with GAIA fuel assemblies, and the analyses that have been performed in support of a transition to GAIA fuel. The licensee summarized NRC approved analysis methods and discussed the technical specifications changes necessary to transition to Framatome fuel in the Callaway core. The licensee's presentation also included its schedule to submit the LAR on August 31, 2022, which will include the rod ejection analysis (REA).

In the previous meeting held on May 20, 2021, on this application, as stated in the meeting summary dated July 1, 2021 (ADAMS Accession No. ML21168A002), the licensee had stated that they were planning to submit the LAR by March 31, 2022 and provide the REA at a later date as a supplement. The split in the LAR submittal schedule was because the REA incorporates the methodology in Regulatory Guide (RG) 1.236, "Pressurized-Water Reactor Control Rod Ejection and Boiling-Water Reactor Control Rod Drop Accidents," dated June 2020 (ADAMS Accession No. ML20055F490), and would not be available by March 31, 2022. The NRC staff expressed concern that this approach may result in non-acceptance of the submittal because of the incomplete information at the time of submission of the LAR.

Based upon earlier feedback, the licensee was planning on delaying its application until the REA was completed. However, this delay would decrease the time allowed for the NRC staff's

review and introduce unnecessary schedule pressure. Given that Framatome was adapting an already approved REA methodology to the new RG 1.236 guidance, the NRC staff indicated that it would be reasonable to describe the REA methodology and acceptance criteria within the application and have the Callaway REA available for audit upon completion. This approach is reasonable because cycle-specific changes in fuel management may necessitate subsequent re-analysis of the rod ejection accident. Hence, the REA available for review as part of this application is a sample analysis, which is intended to illustrate the application of the methodology and guidance in RG 1.236.

If the licensee were to submit this application by March 31, 2022, this approach will provide a longer time period for the NRC staff's review, which may be needed due the expected complexity of this submittal. The licensee plans to request the NRC staff approval of the LAR by September 30, 2023, in order to support implementation of this LAR during Fuel Cycle 27.

The NRC staff asked several clarifying questions on the intent of the planned LAR. It was not clear whether the licensee intends to (1) transition completely from Westinghouse to Framatome fuel or (2) add Framatome as an optional fuel vendor (maintaining Westinghouse as a vendor). Transitioning from one fuel vendor to another (Option #1) is quite common. While seeking approval to load both fuel vendor products (Option #2) would provide the licensee more flexibility, this approach lacks precedence and may raise unique issues. During the meeting, Framatome clarified that the analysis it is performing would support Option #1. However, the licensee also clarified that its future fuel purchasing decisions have not been finalized. Further discussion of this topic is planned in a future pre-submittal meeting.

During the closed session of the meeting, the licensee discussed and provided details on the proposed changes to Framatome's approved methodologies.

No regulatory decisions were made as a result of this teleconference. No members of the public identified themselves on the teleconference. Public Meeting Feedback forms were not received.

Please direct any inquiries to me at 301-415-8371, or via e-mail to Mahesh.Chawla@nrc.gov

/RA/

Mahesh L. Chawla, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosure:
List of Attendees

cc: Listserv

LIST OF ATTENDEES

OCTOBER 14, 2021, PARTIALLY CLOSED PRE- APPLICATION TELECONFERENCE

WITH UNION ELECTRIC COMPANY

CALLAWAY PLANT, UNIT NO. 1

TO DISCUSS APPROVAL TO INSERT FRAMATOME'S GAIA FUEL ASSEMBLIES IN ITS

CORE IN RELOAD QUANTITIES

U.S. Nuclear Regulatory Commission

D. Woodyatt
A. Sallman
M. Chawla
J. Dixon-Herrity
A. Keim
A. Rau
J. Messina
R. Beaton
P. Clifford
J. Lehning

Union Electric Company

J. Cordz
T. Elwood
J. Kovar
J. Little
S. Meyer
B. Richardson
D. Rickard
J. Knaup
J. Vinyard
J. McInvale

Framatome

J. Adams
R. Freeman
R. Williamson
T. Gardner
C. White
G. Borza
M. Byram
K. Segard
M. Harris
T. Lindquist
G. Wissinger
P. Reed
B. Painter

Members of the Public

None Introduced

SUBJECT: SUMMARY OF OCTOBER 14, 2021, PARTIALLY CLOSED PRE-APPLICATION TELECONFERENCE WITH UNION ELECTRIC COMPANY REGARDING APPROVAL TO INSERT FRAMATOME'S GAIA FUEL ASSEMBLIES IN ITS CORE IN RELOAD QUANTITIES FOR CALLAWAY PLANT, UNIT NO. 1 (EPID L-2021-LRM-0099) DATED NOVEMBER 17, 2021

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ADAMS Accession Nos.:

Meeting Notice: ML21265A272

Meeting Summary: ML21308A074

***via e-mail**

OFFICE	NRR/DORL/LPL4/PM	NRR/DORL/LPL4/LA*	NRR/DSS/SNSB/BC*	NRR/DSS/SFNB/BC*
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DATE	11/2/2021	11/5/2021	11/2/2021	11/3/2021
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NAME	KKavanagh	JDixon-Herrity	MChawla	
DATE	11/2/2021	11/17/2021	11/17/2021	

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