



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

July 1, 2021

**LICENSEE:** Union Electric Company

**FACILITY:** Callaway Plant, Unit No. 1

**SUBJECT:** SUMMARY OF MAY 20, 2021, PARTIALLY CLOSED PRE-APPLICATION TELECONFERENCE WITH UNION ELECTRIC COMPANY REGARDING APPROVAL TO INSERT FRAMATOME'S GAIA FUEL ASSEMBLIES IN THEIR CORE IN RELOAD QUANTITIES FOR CALLAWAY PLANT, UNIT NO. 1 (EPID L-2021-LRM-0043)

On May 20, 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) for approval to make a transition to use 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 May 4, 2021, are available in ADAMS at Accession No. ML21130A684. 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. ML21123A258. The licensee covered some background on Callaway, and discussed GAIA fuel assembly design description, operating experience with GAIA fuel assembly, 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 March 31, 2022, and a LAR supplemental submittal (rod ejection analysis) on September 30, 2022.

The licensee stated that the split in the LAR submittal schedule is due to rod ejection analysis that 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 will not be available by March 31, 2022. The licensee requested the NRC staff approval of the LAR by September 30, 2023 to support refueling cycle 27.

The NRC staff asked several clarifying questions on the LAR submittal schedule. The NRC staff expressed its concern regarding submitting a supplement later, which may result in a non-acceptance of the submittal. The NRC staff expects a complete LAR prior to initiating its

acceptance review and asked if there is any precedence for a split in the schedule and submitting a supplement to a LAR after 6 months.

The licensee committed to follow up on the NRC staff's LAR schedule concerns, the split in LAR schedule, and reference to any precedence on the use of RG 1.236 for fuel rod ejection in a fuel transition LAR. During the closed session of the meeting, the licensee discussed and provided further details on the Framatome's fuel transition methodology.

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](mailto:Mahesh.Chawla@nrc.gov)

**/RA/**

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

Docket No. 50-483

Enclosure:  
List of Attendees

cc: Listserv

LIST OF ATTENDEES

MAY 20, 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 THEIR

CORE IN RELOAD QUANTITIES FOR

**U.S. Nuclear Regulatory Commission**

D. Woodyatt  
A. Sallman  
M. Chawla  
J. Dixon-Herrity  
A. Keim  
A. Rau  
B. Jain  
R. Beaton  
A. Smith  
N. Otto

**Union Electric Company**

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

**Framatome**

R. Williamson  
T. Gardner  
C. White  
G. Borza  
M. Byram  
J. Holm  
K. Segard  
P. Bellanger  
T. George  
G. Wissinger  
P. Reed  
B. Painter

**Members of the Public**

None Introduced

SUBJECT: SUMMARY OF MAY 20, 2021, PARTIALLY CLOSED PRE-APPLICATION TELECONFERENCE WITH UNION ELECTRIC COMPANY REGARDING APPROVAL TO INSERT FRAMATOME'S GAIA FUEL ASSEMBLIES IN THEIR CORE IN RELOAD QUANTITIES FOR CALLAWAY PLANT, UNIT NO. 1 (EPID L-2021-LRM-0043) DATED JULY 1, 2021

**DISTRIBUTION:**

PUBLIC

PM File Copy

RidsACRS\_MailCTR Resource

RidsNrrDorLpl4 Resource

RidsNrrDssSfnb Resource

RidsNrrDssSnsb Resource

RidsNrrDroIqvb Resource

RidsNrrPMCallaway Resource

RidsNrrLAPBlechman Resource

RidsRgn4MailCenter Resource

DWoodyatt, NRR

ASallman, NRR

AKeim, NRR

ARau, NRR

RBeaton, NRR

ASmith, NRR

CDeMessieres, NRR

PFinney, NRR

CTilton, NRR

BJain, NRR

NOtto, NRR

RRichardson, OEDO,

AMcCraw, OEDO

JArellano, RIV

NO'Keefe, RIV

JBradley, RIV

SJanicki, RIV

**ADAMS Accession Nos.:**

**Meeting Notice: ML21130A684**

**Meeting Summary: ML21168A002**

**\*via e-mail**

OFFICE	NRR/DORL/LPL4/PM	NRR/DORL/LPL4/LA*	NRR/DSS/SNSB/BC*	NRR/DSS/SFNB/BC*
NAME	MChawla	PBlechman	SKrepel	RLukes
DATE	06/21/2021	06/17/2021	06/24/2021	06/24/2021
OFFICE	NRR/DRO/IQVB/BC*	NRR/DORL/LPL4/BC*	NRR/DORL/LPL4/PM*	
NAME	KKavanagh	SLee forJDixon-Herrity	MChawla	
DATE	06/24/2021	07/01/2021	07/01/2021	

**OFFICIAL RECORD COPY**