



SENSITIVE INFORMATION – WITHHOLD UNDER 10 CFR 2.390(a)(4)

October 12, 2022

ULNRC-06768

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

10 CFR 50.12
10 CFR 50.90

Ladies and Gentlemen:

**DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
UNION ELECTRIC CO.
RENEWED FACILITY OPERATING LICENSE NPF-30
APPLICATION FOR TECHNICAL SPECIFICATION CHANGE AND EXEMPTION
REQUEST REGARDING USE OF FRAMATOME GAIA FUEL (LDCN 22-0002)**

- References:
1. Ameren Missouri letter ULNRC-06729, "Application for Technical Specification Change and Exemption Request Regarding Transition to Framatome Fuel, LDCN 22-0002," dated June 2, 2022 (ADAMS Accession No. ML22153A174).
 2. NRC Letter "Callaway Plant, Unit No. 1 – Withdrawal of Requested Licensing Action re: License Amendment Request for Technical Specification Change and Exemption Request Regarding Transition to Allow Use of Framatome GAIA Fuel, Submitted to NRC for Acceptance Review (EPID L-2022-LLA-0083 and EPID L-2022-LLE-0019)," dated August 15, 2022 (ADAMS Accession No. ML22220A281).

Pursuant to 10 CFR 50.90, "Application for amendment of license or construction permit," and 10 CFR 50.12, "Specific exemptions," Ameren Missouri (Union Electric Company) herewith transmits an application for amendment to Renewed Facility Operating License Number NPF-30 as well as a request for exemption from specific regulations for Callaway Plant Unit 1.

Per this license amendment request (LAR), Ameren Missouri proposes to revise the Technical Specifications to allow the use of a limited number of Framatome GAIA fuel assemblies at Callaway

Enclosure 1 Attachments 9, 10, 11 and 12 to this letter contain sensitive information. Withhold from public disclosure under 10 CFR 2.390(a)(4). Upon removal of Enclosure 1 Attachments 9, 10, 11 and 12, this letter is uncontrolled.

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Plant Unit 1. Callaway proposes to load a limited number of GAIA fuel assemblies starting in operating cycle 27 to obtain in-core performance data and acquire operational experience associated with the GAIA fuel design. Additionally, pursuant to 10 CFR 50.12, Ameren Missouri requests an exemption from the provisions of 10 CFR 50.46, "Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors," and Appendix K to 10 CFR 50, "ECCS Evaluation Models," to allow the use of M5[®] fuel rod cladding associated with the GAIA fuel assemblies.

Enclosure 1 provides the evaluation of the proposed Technical Specification (TS) changes, including the description of the proposed changes, the no significant hazards consideration determination, the existing TS pages marked up to reflect the proposed changes, the revised (clean) TS pages, an informational copy of the marked-up TS Bases, and the supporting technical evaluations for the GAIA fuel assemblies. Within Enclosure 1 are attachments that provide the Framatome affidavits for withholding of proprietary technical reports from the public; the supporting Framatome proprietary technical reports referenced in the technical evaluation, and attachments that provide the non-proprietary version of the Framatome technical reports.

Enclosure 2 provides the request for exemption from 10 CFR 50.46 and Appendix K to 10 CFR 50 requirements for the use of M5 clad for the GAIA fuel assemblies.

It should be noted that this LAR (and request for exemptions) is a follow-up to a previous LAR, identified as Reference 1, which was withdrawn by Ameren Missouri in August 2022. Withdrawal of that LAR was acknowledged by the NRC in their letter identified as Reference 2. This LAR reflects a revised scope and implementation plan for the use of Framatome fuel, as further described in Enclosure 1. Although the Reference 1 LAR was withdrawn, NRC acceptance review of that LAR identified several insufficiency items that are relevant to this LAR, and therefore, they are addressed in Enclosure 1 of this LAR.

It should also be noted that independent of this license amendment application, a separate LAR was submitted on August 30, 2022, to address changes required as a result of an updated spent fuel pool criticality analysis. The separate LAR addresses proposed changes to TS 3.7.16, "Fuel Storage Pool Boron Concentration"; TS 3.7.17, "Spent Fuel Assembly Storage"; and TS 4.3, "Fuel Storage," to reflect the updated criticality analysis, and includes consideration of the design properties associated with the GAIA fuel assemblies.

It has been determined that this license amendment application does not involve a significant hazard consideration as determined per 10 CFR 50.92, "Issuance of amendment." Pursuant to 10 CFR 51.22, "Criterion categorical exclusion or otherwise not requiring environmental review," Section (b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

Further, this submittal does not contain new commitments.

In accordance with the Callaway Operating Quality Assurance Manual, the Onsite Review Committee has reviewed and approved the proposed changes and has approved the submittal of this amendment application.

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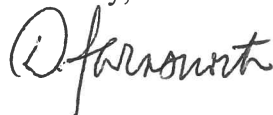
To accommodate the operating cycle 27 core design, Ameren Missouri requests approval of the requested license amendment prior to September 30, 2023. Ameren Missouri further requests that the license amendment be made effective upon NRC issuance, to be implemented prior to commencement of operating cycle 27.

In accordance with 10 CFR 50.91 “Notice for public comment; State consultation,” Section (b)(1), a copy of this license amendment application is being provided to the designated Missouri State official.

If there are any questions, please contact Tom Elwood at 314-225-1905.

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,



Deborah E. Farnsworth
Senior Director, Nuclear Plant Support

Executed on: 10/12/22

- Enclosures: 1. Description and Assessment of the Proposed Change
Attachments to Enclosure 1 include:
- 1 Marked-up Existing Technical Specifications
 - 2 Revised Clean Technical Specifications
 - 3 Marked-up Technical Specification Bases
 - 4 Framatome Affidavits for Withholding from Public Disclosure
 - 5 Non-Proprietary Version of Licensing Summary Report
 - 6 Non-Proprietary Version of RLBLOCA Summary Report
 - 7 Non-Proprietary Version of SBLOCA Summary Report
 - 8 Non-Proprietary Version of Non-LOCA Summary Report
 - 9 Proprietary Version of Licensing Summary Report
 - 10 Proprietary Version of RLBLOCA Summary Report
 - 11 Proprietary Version of SBLOCA Summary Report
 - 12 Proprietary Version of Non-LOCA Summary Report
 - 13 Response to Insufficiency Items From First License Amendment Request
2. Exemption Request

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