



December 1, 2021

ULNRC-06696

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

10 CFR 50.90

Ladies and Gentlemen:

**DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
UNION ELECTRIC CO.
RENEWED FACILITY OPERATING LICENSE NPF-30
SUPPLEMENT TO LICENSE AMENDMENT REQUEST FOR ADOPTION OF
ALTERNATIVE SOURCE TERM AND REVISION OF TECHNICAL SPECIFICATIONS
(EPID L-2021-LLA-0177)**

References:

1. Ameren Missouri letter ULNRC-06636, "License Amendment Request for Adoption of Alternate Source Term and Revision of Technical Specifications," dated September 28, 2021 (ADAMS Accession No. ML21272A168)
2. NRR e-mail capture, Subject: "LIC-109 Acceptance Review (Unacceptable for Review with Opportunity to Supplement) - Callaway Plant, Unit 1 - License Amendment Request - Callaway Plant, Unit 1- Adoption of Alternate Source Term and Revision of TSs - EPID L-2021-LLA-0177," dated November 4, 2021 (ADAMS Accession No. ML21308A069)

By letter dated September 28, 2021 (Reference 1), Ameren Missouri submitted a license amendment request (LAR) for adopting the alternative source term methodology addressed in 10 CFR 50.67. Subsequent to submittal of the Reference 1 LAR, however, the need to identify information contained in Enclosure 1 of the LAR as security sensitive was re-evaluated, thus requiring a change to be made to the LAR. In addition, needed corrections and changes to the various enclosures provided with the LAR were identified. This supplement to the LAR is being submitted to address these changes. It also provides additional information requested pursuant to Reference 2 above, as further explained below.

As noted above, one aspect of the Reference 1 LAR that requires correction is that Enclosure 1 of the submittal, "Evaluation of Changes," was unnecessarily identified as containing security sensitive information. From additional discussion and evaluation subsequent to the submittal, it was determined that none of the material contained in the noted enclosure must be identified as security sensitive. As a

result, that information is now being provided, and specifically, it is included in Enclosure 1 to this LAR supplement, which is an updated version of Enclosure 1 provided in the Reference 1 LAR. Consequently, Enclosure 1 is no longer requested to be withheld from public disclosure pursuant to 10 CFR 2.390. It should also be noted that typographical errors subsequently identified in the original Enclosure 1 have been corrected. Those changes are indicated by the use of revision bars in Enclosure 1 to this letter.

Because Enclosure 1 in the Reference 1 LAR was identified as containing information to be withheld from public disclosure, a redacted version of Enclosure 1 was provided as Enclosure 2 to the LAR. Now that it has been determined that none of the provided information must be considered security sensitive information (as described above), a redacted version of the enclosure is no longer needed. To reflect this change, Enclosure 2 to this LAR supplement is provided. Enclosure 2 corresponds to the originally provided Enclosure 2, but it only contains a single sentence stating that a separate non-proprietary version (of the information provided in Enclosure 1) is no longer needed.

As previously noted, several minor corrections were identified to be needed in other enclosures provided with Reference 1 LAR. These included errors in the placement of horizontal separator lines, incorrect page numbers, text missing from mark-up annotations, and inconsistencies between the Technical Specification (TS) marked-up and retyped pages. To address those errors, corrected copies of the previously submitted proposed TS change mark-ups, retyped TS pages, TS Bases change mark-ups (information only), and Final Safety Analysis Report (FSAR) change mark-ups (information only), are provided in Enclosures 3 through 6, respectively, to this LAR supplement.

By e-mail dated November 4, 2021 (Reference 2), the NRC staff requested additional information that is needed to support acceptance of the requested license amendment for review. The requested information includes meteorological data and run specification inputs to, and outputs from, the software codes that were used to establish atmospheric relative concentration (χ/Q) parameters for evaluating the consequences of postulated accidents, along with a clarification of the differences between the ARCON96 and PAVAN codes used by the NRC and the ARCON96-NAI and PAVAN-NAI codes that were used to perform the Callaway Plant calculations.

The additional information requested by the NRC is provided in Enclosures 7 through 14 to this LAR supplement. Enclosure 7 contains the Callaway Plant hourly meteorological data (wind speed and direction at the 10-meter and 60-meter elevations, and delta temperature per 100 feet of elevation) for the years 2013 through 2016 in the format specified in Appendix A to Regulatory Guide 1.23, Rev. 1. Enclosure 8 contains the Callaway Plant hourly meteorological data (wind speed and direction at the 10-meter and 60-meter elevations, and atmospheric stability class) for the years 2013 through 2016 in the input format used by ARCON96-NAI. Enclosure 9 contains the run specifications for the ARCON96-NAI runs that were performed for each of the release point / receptor pairs that are described in Table 3-26 of Enclosure 1. Enclosure 10 contains the output summary logs from the ARCON96-NAI runs, along with the cumulative frequency distribution results provided in Enclosure 11. Enclosure 12 contains PAVAN-NAI meteorological data input in the form of a joint frequency distribution table, along with run specifications for Reactor Building (RB) and for Refueling Water Storage Tank (RWST) leakage releases evaluated at the Exclusion Area Boundary (EAB) and Low Population Zone (LPZ) Boundary. The PAVAN-NAI results are provided in Enclosure 13.

A summary of the differences between ARCON96 and ARCON96-NAI, and between PAVAN and PAVAN-NAI, is provided in Enclosure 14.

The corrections to previously submitted information and the supplemental information provided in the enclosures to this letter have no impact on the changes requested and described in the LAR. As such, they do not change the "No Significant Hazards Consideration" conclusions reached in the LAR, nor do they change the conclusion regarding no need for an environmental assessment based on the categorical exclusion provisions of 10 CFR 51.22.

This letter does not contain new commitments.

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

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

Sincerely,



Steve J. Meyer
Manager, Regulatory Affairs

Executed on: 12/1/2021

Enclosures:

1. Full Scope Implementation of Alternative Source Term - Evaluation of Proposed Changes
2. Full Scope Implementation of Alternative Source Term - Evaluation of Proposed Changes
3. Proposed Technical Specification Changes (Mark-up)
4. Retyped Technical Specification Pages
5. Proposed Technical Specification Bases Changes (Mark-up – for Information Only)
6. Proposed Final Safety Analysis Report Changes (Mark-up – for Information Only)
7. Callaway Plant Hourly Meteorological Data from 2013 through 2016 in Regulatory Guide 1.23, Rev. 1, Appendix A Format
8. Callaway Plant Hourly Meteorological Data from 2013 through 2016 in ARCON96-NAI Input Format
9. ARCON96-NAI Input Run Specifications
10. ARCON96-NAI Output Summary Logs
11. ARCON96-NAI Output Cumulative Frequency Distribution Results
12. PAVAN-NAI Input Meteorological Data and Run Specifications for Reactor Building and Refueling Water Storage Tank Releases Evaluated at Exclusion Area Boundary and Low Population Zone Boundary
13. PAVAN-NAI Output for Reactor Building and Refueling Water Storage Tank Releases Evaluated at Exclusion Area Boundary and Low Population Zone Boundary
14. Summary of Differences Between ARCON96 and ARCON96-NAI and Between PAVAN and PAVAN-NAI Codes



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