



NUCLEAR REGULATORY COMMISSION

[Docket No. 50-483; NRC-2025-0036]

Union Electric Company; Callaway Plant, Unit No. 1; License Amendment Request

AGENCY: Nuclear Regulatory Commission.

ACTION: Opportunity to comment, request a hearing, and petition for leave to intervene.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC, the Commission) is considering issuance of an amendment to Renewed Facility Operating License No. NPF-30, issued to Union Electric Company, doing business as Ameren Missouri (the licensee), for the operation of Callaway Plant, Unit No. 1 (Callaway). The proposed amendment would add a note to Callaway Technical Specification (TS) 4.2.2, "Control Rod Assemblies," to permit the Cycle 28 core to contain 52 control rods (i.e., with no control rod in core location H-08) in lieu of the current requirement for 53 control rods.

DATES: Submit comments by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. Requests for a hearing or petitions for leave to intervene must be filed by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: You may submit comments by any of the following methods; however, the NRC encourages electronic comment submission through the **Federal rulemaking website**.

- **Federal rulemaking website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2025-0036**. Address questions about Docket IDs in Regulations.gov to Bridget Curran; telephone: 301-415-1003; email: Bridget.Curran@nrc.gov. For technical questions, contact the individual listed in the "For Further Information Contact" section of this document.

- **Mail comments to:** Office of Administration, Mail Stop: TWFN-7-A60M, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Program Management, Announcements and Editing Staff.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Mahesh Chawla, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-8371; email: Mahesh.Chawla@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID **NRC-2025-0036** when contacting the NRC about the availability of information for this action. You may obtain publicly available information related to this action by any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2025-0036**.

- **NRC’s Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “Begin Web-based ADAMS Search.” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, at 301-415-4737, or by email to PDR.Resource@nrc.gov. The license amendment request is available in ADAMS under Package Accession No. ML25029A188.

- **NRC’s PDR:** The PDR, where you may examine and order copies of publicly available documents, is open by appointment. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-

4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

B. Submitting Comments

The NRC encourages electronic comment submission through the **Federal rulemaking website** (<https://www.regulations.gov>). Please include Docket ID **NRC-2025-0036** in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at <https://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Introduction

The NRC is considering issuance of an amendment to Renewed Facility Operating License No. NPF-30, issued to Union Electric Company, doing business as Ameren Missouri, for the operation of Callaway, located in Callaway County, Missouri.

The proposed amendment would add a note to Callaway TS 4.2.2 to permit the Cycle 28 core to contain 52 control rods (i.e., with no control rod in core location H-08) in lieu of the current requirement for 53 control rods. A Callaway operating cycle is nominally 18 months. The results of control rod drop time testing performed during recent refueling outages indicate a slowing rod drop time for the H-08 control rod. The rod drop time is still within the TS allowable limits (per TS Surveillance Requirement 3.1.4.3), but troubleshooting is planned for the upcoming outage, Refuel 27. The

troubleshooting could indicate the need for a repair that would not be able to be performed during the outage. If so, the H-08 control rod would be removed with the intent of leaving it removed from the H-08 core location throughout Cycle 28 such that the H-08 control rod drive mechanism would be repaired or replaced during Refuel 28.

Before any issuance of the proposed license amendment, the NRC will need to make the findings required by the Atomic Energy Act of 1954, as amended (the Act), and NRC's regulations.

The NRC has made a proposed determination that the license amendment request involves no significant hazards consideration. Under the NRC's regulations in section 50.92 of title 10 of the *Code of Federal Regulations* (10 CFR), "Issuance of amendment," this means that operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented as follows:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed license amendment would add a note to Callaway Unit 1 Technical Specification (TS) 4.2.2, "Control Rod Assemblies," to permit Cycle 28 to contain 52 control rods, i.e., with no control rod in core location H-08. Currently, TS 4.2.2 requires 53 control rod assemblies in each reactor core.

This proposed license amendment would allow for the temporary removal of the control rod in core location H-08 during Cycle 28. Operation of Callaway Cycle 28 with the H-08 control rod removed will not involve a significant increase in the probability or consequences of an accident previously evaluated. Shutdown margin (SDM) is reduced by the absence of the H-08 control rod but remains bounded by the limits specified by the Core Operating Limits Report (COLR). Because the impacts on the cycle-specific nuclear design parameters are bounded by the conservative input values used in the Final Safety Analysis Report (FSAR) accident analyses, the current accident analyses remain bounding. Therefore, the proposed change does not

involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed changes will not alter or prevent the ability of the remaining 52 control rods from performing their intended functions to mitigate the consequences of an initiating event within the assumed acceptance limits. The mechanical removal of the control rod drive shaft and Rod Cluster Control Assembly (RCCA) does not have any mechanical impact on the function of the remaining 52 control rods. The electrical removal from service of the H-08 control rod involves pulling fuses to remove control power to the respective stationary, lift, and movable coils. The remaining control rods are not impacted by this electrical change and will continue to meet their design function. The modification design change process ensures that the associated plant modifications involve only the H-08 control rod and do not affect other control rods.

The proposed changes do not alter any accident analysis assumptions discussed in the FSAR. Shutdown Margin (SDM) is reduced by the absence of the H-08 control rod but remains bounded by the limits specified by the COLR.

Therefore, it is concluded that this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

Operation of Callaway Cycle 28 with the H-08 control rod removed will not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change involves no physical change beyond the removal of the H-08 control rod. The safety evaluations performed for Cycle 28 with the H-08 control rod removed validated that the impacts to the nuclear design parameters were within the bounds of those already assumed in the FSAR Chapter 15 accident analyses. The change in core bypass flow through the upper head region has been evaluated, and it has been determined that the increase is negligible and there is no impact to the safety analysis due to this negligible increase. The current accident analyses remain bounding. All plant equipment will continue to meet applicable design and safety requirements.

Therefore, it is concluded that this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions

are initiated. The proposed change does not alter any FSAR design basis or safety limit and does not change any setpoint at which automatic actuations are initiated. The proposed change has been evaluated for effects on available shutdown margin, boron worth, trip reactivity as a function of time, and moderator temperature coefficient. The results of these evaluations show that adequate margin is maintained such that the proposed change would not cause a design basis or safety limit to be altered or exceeded.

Therefore, it is concluded that the proposed change does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the license amendment request involves no significant hazards consideration.

The NRC is seeking public comments on this proposed determination that the license amendment request involves no significant hazards consideration. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of 60 days after the date of publication of this notice. The Commission may issue the license amendment before expiration of the 60-day notice period if the Commission concludes the amendment involves no significant hazards consideration. In addition, the Commission may issue the amendment prior to the expiration of the 30-day comment period if circumstances change during the 30-day comment period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility. If the Commission takes action prior to the expiration of either the comment period or the notice period, it will publish in the *Federal Register* a notice of issuance. If the Commission makes a final no significant hazards consideration determination, any hearing will take place after issuance. The Commission expects that the need to take this action will occur very infrequently.

III. Opportunity to Request a Hearing and Petition for Leave to Intervene

Within 60 days after the date of publication of this notice, any person (petitioner) whose interest may be affected by this action may file a request for a hearing and petition for leave to intervene (petition) with respect to the action. Petitions shall be filed in accordance with the Commission's "Agency Rules of Practice and Procedure" in 10 CFR part 2. Interested persons should consult 10 CFR 2.309. If a petition is filed, the presiding officer will rule on the petition and, if appropriate, a notice of a hearing will be issued.

Petitions must be filed no later than 60 days from the date of publication of this notice in accordance with the filing instructions in the "Electronic Submissions (E-Filing)" section of this document. Petitions and motions for leave to file new or amended contentions that are filed after the deadline will not be entertained absent a determination by the presiding officer that the filing demonstrates good cause by satisfying the three factors in 10 CFR 2.309(c)(1)(i) through (iii).

If a hearing is requested and the Commission has not made a final determination on the issue of no significant hazards consideration, the Commission will make a final determination on the issue of no significant hazards consideration, which will serve to establish when the hearing is held. If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing would take place after issuance of the amendment. If the final determination is that the amendment request involves a significant hazards consideration, then any hearing held would take place before the issuance of the amendment unless the Commission finds an imminent danger to the health or safety of the public, in which case it will issue an appropriate order or rule under 10 CFR part 2.

A State, local governmental body, Federally recognized Indian Tribe, or designated agency thereof, may submit a petition to the Commission to participate as a party under 10 CFR 2.309(h) no later than 60 days from the date of publication of this notice. Alternatively, a State, local governmental body, Federally recognized Indian

Tribe, or designated agency thereof may participate as a non-party under 10 CFR 2.315(c).

For information about filing a petition and about participation by a person not a party under 10 CFR 2.315, see ADAMS Accession No. ML20340A053 (<https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML20340A053>) and on the NRC's public website at <https://www.nrc.gov/about-nrc/regulatory/adjudicatory/hearing.html#participate>.

IV. Electronic Submissions (E-Filing)

All documents filed in NRC adjudicatory proceedings, including documents filed by an interested State, local governmental body, Federally recognized Indian Tribe, or designated agency thereof that requests to participate under 10 CFR 2.315(c), must be filed in accordance with 10 CFR 2.302. The E-Filing process requires participants to submit and serve all adjudicatory documents over the internet, or in some cases, to mail copies on electronic storage media, unless an exemption permitting an alternative filing method, as further discussed, is granted. Detailed guidance on electronic submissions is located in the "Guidance for Electronic Submissions to the NRC" (ADAMS Accession No. ML13031A056) and on the NRC's public website at <https://www.nrc.gov/site-help/e-submittals.html>.

To comply with the procedural requirements of E-Filing, at least 10 days prior to the filing deadline, the participant should contact the Office of the Secretary by email at Hearing.Docket@nrc.gov, or by telephone at 301-415-1677, to (1) request a digital identification (ID) certificate, which allows the participant (or its counsel or representative) to digitally sign submissions and access the E-Filing system for any proceeding in which it is participating; and (2) advise the Secretary that the participant will be submitting a petition or other adjudicatory document (even in instances in which the participant, or its counsel or representative, already holds an NRC-issued digital ID certificate). Based upon this information, the Secretary will establish an electronic docket for the proceeding if the Secretary has not already established an electronic docket.

Information about applying for a digital ID certificate is available on the NRC's public website at <https://www.nrc.gov/site-help/e-submittals/getting-started.html>. After a digital ID certificate is obtained and a docket created, the participant must submit adjudicatory documents in Portable Document Format. Guidance on submissions is available on the NRC's public website at <https://www.nrc.gov/site-help/electronic-sub-ref-mat.html>. A filing is considered complete at the time the document is submitted through the NRC's E-Filing system. To be timely, an electronic filing must be submitted to the E-Filing system no later than 11:59 p.m. ET on the due date. Upon receipt of a transmission, the E-Filing system time-stamps the document and sends the submitter an email confirming receipt of the document. The E-Filing system also distributes an email that provides access to the document to the NRC's Office of the General Counsel and any others who have advised the Office of the Secretary that they wish to participate in the proceeding, so that the filer need not serve the document on those participants separately. Therefore, applicants and other participants (or their counsel or representative) must apply for and receive a digital ID certificate before adjudicatory documents are filed to obtain access to the documents via the E-Filing system.

A person filing electronically using the NRC's adjudicatory E-Filing system may seek assistance by contacting the NRC's Electronic Filing Help Desk through the "Contact Us" link located on the NRC's public website at <https://www.nrc.gov/site-help/e-submittals.html>, by email to MSHD.Resource@nrc.gov, or by a toll-free call at 1-866-672-7640. The NRC Electronic Filing Help Desk is available between 9 a.m. and 6 p.m., ET, Monday through Friday, except Federal holidays.

Participants who believe that they have good cause for not submitting documents electronically must file an exemption request, in accordance with 10 CFR 2.302(g), with their initial paper filing stating why there is good cause for not filing electronically and requesting authorization to continue to submit documents in paper format. Such filings must be submitted in accordance with 10 CFR 2.302(b)-(d). Participants filing adjudicatory documents in this manner are responsible for serving their documents on all

other participants. Participants granted an exemption under 10 CFR 2.302(g)(2) must still meet the electronic formatting requirement in 10 CFR 2.302(g)(1), unless the participant also seeks and is granted an exemption from 10 CFR 2.302(g)(1).

Documents submitted in adjudicatory proceedings will appear in the NRC's electronic hearing docket, which is publicly available at <https://adams.nrc.gov/ehd>, unless excluded pursuant to an order of the presiding officer. If you do not have an NRC-issued digital ID certificate as previously described, click "cancel" when the link requests certificates and you will be automatically directed to the NRC's electronic hearing docket where you will be able to access any publicly available documents in a particular hearing docket. Participants are requested not to include personal privacy information such as social security numbers, home addresses, or personal phone numbers in their filings unless an NRC regulation or other law requires submission of such information. With respect to copyrighted works, except for limited excerpts that serve the purpose of the adjudicatory filings and would constitute a Fair Use application, participants should not include copyrighted materials in their submission.

For further details with respect to this action, see the application for license amendment dated January 29, 2025 (ADAMS Package Accession No. ML25029A188).

Attorney for licensee: Jay Silberg, Pillsbury Winthrop Shaw Pittman LLP, 1200 17th Street, NW, Washington, DC 20036.

NRC Branch Chief: Tony Nakanishi.

Dated: February 24, 2025.

For the Nuclear Regulatory Commission.

Mahesh Chawla,
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