



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

February 24, 2023

Mr. Fadi Diya  
Senior Vice President and  
Chief Nuclear Officer  
Ameren Missouri  
Callaway Energy Center  
8315 County Road 459  
Steedman, MO 65077

SUBJECT: CALLAWAY PLANT, UNIT NO. 1 - ISSUANCE OF AMENDMENT NO. 231 FOR  
REVISION TO THE RADIOLOGICAL EMERGENCY RESPONSE PLAN  
REGARDING RESPONSE AND NOTIFICATION GOALS  
(EPID L-2022-LLA-0024)

Dear Mr. Diya:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 231 to Renewed Facility Operating License No. NPF-30 for Callaway Plant, Unit No. 1. The amendment consists of changes to the Radiological Emergency Response Plan (RERP) in response to your application dated February 8, 2022, as supplemented by letter dated July 13, 2022.

The amendment revises the RERP to make the following changes:

- Remove the 15-minute and 30-minute "Normal Hours" response and activation goals, leaving the 75-minute and 90-minute "Off-Normal Hours" activation goals as the station standard to cover all hours
- Extend the State and counties "follow-up" notification goal from 30 minutes to 60 minutes and allow for even further increases when conditions are stable, with the agreement of the State of Missouri and local counties.

These changes are considered to constitute a reduction in effectiveness of the RERP and therefore require prior NRC approval pursuant to 10 CFR 50.54(q).

F. Diya

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A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's monthly *Federal Register* notice.

Sincerely,

***/RA Dennis Galvin for/***

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

Docket No. 50-483

Enclosures:

1. Amendment No. 231 to NPF-30
2. Safety Evaluation

cc: Listserv



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

UNION ELECTRIC COMPANY

CALLAWAY PLANT, UNIT NO. 1

DOCKET NO. 50-483

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 231  
License No. NPF-30

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Union Electric Company (UE, the licensee), dated February 8, 2022, as supplemented by letter dated July 13, 2022, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, by Amendment 231, Renewed Facility Operating License No. NPF-30 is hereby amended to authorize revision to the Radiological Emergency Response Plan for Callaway Plant, Unit No. 1, as set forth in Union Electric Company's, application dated February 8, 2022, as supplemented by letter dated July 13, 2022, and evaluated in the NRC staff's safety evaluation associated for this amendment.
3. This amendment is effective as of its date of issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Andrea D. Veil, Director  
Office of Nuclear Reactor Regulation

Date of Issuance: February 24, 2023



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 231 TO

RENEWED FACILITY OPERATING LICENSE NO. NPF-30

UNION ELECTRIC COMPANY

CALLAWAY PLANT, UNIT NO. 1

DOCKET NO. 50-483

1.0 INTRODUCTION

By application dated February 8, 2022 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22039A317), as supplemented by letter dated July 13, 2022 (ML22194A800), Union Electric Company, doing business as Ameren Missouri (the licensee), requested U.S. Nuclear Regulatory Commission (NRC) review and prior approval of changes to revise the Radiological Emergency Response Plan (RERP) for Callaway Plant, Unit No. 1 (Callaway) pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.54(q)(4). The proposed changes to the Callaway RERP would standardize the emergency response organization (ERO) response time and extend the State and counties notification and follow-up notification goals.

The supplemental letter dated July 13, 2022, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staffs proposed no significant hazards consideration determination as published in the *Federal Register* (FR) on April 19, 2022 (87 FR 23274).

2.0 REGULATORY EVALUATION

The regulatory requirements and guidance, on which the NRC staff based this review, are provided below.

2.1 Regulations

The planning standards, as set forth in 10 CFR 50.47(b), establish the requirements that the onsite and offsite emergency response plans must meet for the NRC staff to find there is reasonable assurance that the licensee will take adequate protective measures in the event of a radiological emergency.

In addition, Appendix E to 10 CFR Part 50, "Emergency Planning and Preparedness for Production and Utilization Facilities," Section IV.1, states, in part, that "...the emergency response plans submitted by an applicant for a nuclear power reactor operating license under

this part...shall contain information needed to demonstrate compliance with the standards described in § 50.47(b), and they will be evaluated against those standards.”

## 2.2 Guidance

NUREG-0654/FEMA-REP-1 [Federal Emergency Management Agency – Radiological Emergency Preparedness], “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” Revision 2 (NUREG-0654) (ML19347D139), provides specific acceptance criteria that the NRC has determined to be an acceptable means of complying with the standards in 10 CFR 50.47. These criteria provide a basis for NRC licensees and State and local governments to develop acceptable radiological emergency preparedness plans.

## 3.0 TECHNICAL EVALUATION

### 3.1 Background

As stated in the application, the proposed Callaway RERP would eliminate the normal work hours 15-minute response goal and standardize ERO response time to the current off hour response goal of 75 minutes. Additionally, the proposed Callaway RERP would extend the follow-up notification for the State of Missouri and emergency planning zone (EPZ) counties from 30 minutes to 60 minutes until plant conditions are relatively stable. Once plant conditions are relatively stable, follow-up notifications may be reduced to an agreed upon frequency. Other than elimination of the 15-minute ERO response goal, the proposed Callaway RERP does not include changes to ERO staffing requirements.

The application includes enclosures that describe the licensee’s evaluation of the proposed changes to the Callaway RERP. A detailed description, redline strikeout, and a justification for each change is provided.

In enclosure 2, “Ameren Missouri Verification of Agreement Letters with State and EPZ Counties for Proposed Revision to Radiological Emergency Response Plan Regarding Response and Notification Goals,” of the letter dated July 13, 2022, the licensee provided copies of letters from State and local governmental agencies. These letters confirmed that State and local governmental agencies agree to the proposed changes to the Callaway RERP and confirmed that there will be no impact to State or local radiological response plans.

### 3.2 Evaluation

The NRC staff reviewed the licensee’s regulatory and technical analysis in support of the proposed changes to the Callaway RERP, described in the application dated February 8, 2022, as supplemented by letter dated July 13, 2022.

#### 3.2.1 ERO Response Time

The current staffing times were reviewed and approved by the NRC in letter dated March 1, 2001 (ML010600400). In its evaluation, the NRC staff concluded:

Therefore, by extending the ERF [emergency response facility] augmentation times, the licensee will be able to draw upon a larger pool of personnel for the ERO which would facilitate having the necessary persons with the appropriate

skills to respond to the emergency. This should increase the effectiveness of the ERO and compensate for the extended response times of 75 minutes for rapid responders during off hours because the licensee will be able to draw on more resources and the primary criteria for selection of personnel for positions in the ERO will not be the location of the person's residence. For the licensee's core hours, the proposed response time goals are less than allowed by the current RERP Table 5-2 [Emergency Staffing Requirements Emergency Response Organization]. Based on this, the [NRC] staff concludes that the licensee meets the criterion.

For the present request, the licensee stated that the current normal work hours assumes that a normal work week would be Monday to Friday and did not consider individuals working at home. The licensee further stated that there are onsite locations that are greater than 15 minutes from the onsite ERO locations. Because ERO individuals working at home would not be able to meet the normal work hour ERO response goal of 15 minutes, work at home individuals would be expected to respond within 75 minutes of an Alert or higher emergency classification level (ECL). This could result in response organizations having some ERO individuals respond within 15 minutes and having to wait until individuals with a 75-minute ERO response time arrive to assume the respective ERO function. Standardizing ERO response time to the currently approved off hours response goal of 75 minutes would ensure that a consistent ERO response time is clearly understood and implemented. Because the 75-minute ERO response time is already used by the licensee during off hours and would likely be used during normal working hours due to individuals working at home, and because the ERO functions would be maintained, as discussed below, the NRC staff has determined that the proposed change to eliminate the 15-minute normal hours goal acceptable.

### 3.2.1.1 ERO Functions

The NRC staff evaluated the impact of the proposed change on the emergency preparedness functions included in NUREG-0654, Revision 2, table B-1, "Emergency Response Organization (ERO) Staffing and Augmentation Plan." The Callaway RERP was developed using NUREG-0654, Revision 1 (ML040420012), and has emergency preparedness functions not included in NUREG-0654, Revision 2, table B-1. The NRC staff also evaluated the impact of the proposed change on these additional functions.

#### Command and Control

For the command and control function, NUREG-0654, table B-1, recommends that an emergency coordinator respond to the technical support center (TSC) within 60 minutes of an Alert or higher ECL and that an emergency director respond to the emergency operations facility (EOF) within 90 minutes of a Site Area Emergency or higher ECL. The current Callaway RERP has an emergency coordinator respond to the TSC and a recovery manager respond to the EOF within 15 minutes during normal hours and 75 minutes during off hours of an Alert or higher ECL.

Other than the proposed removal of the 15-minute response goal for normal hours, discussed above, the licensee did not propose a change to the currently approved command and control function. Because the proposed change would standardize ERO response time to the currently approved off hour goal of 75 minutes from an Alert or higher ECL and eliminate potential inconsistent activation of ERO facilities during normal work hours, the NRC staff finds the proposed elimination of the 15-minute normal hours goal acceptable.

The NRC staff reviewed the licensee's proposed change to the command and control function and finds it acceptable based on the information discussed above. Therefore, NUREG-0654 Evaluation Criterion B.1.a continues to be met and this change is acceptable.

#### Communications

For the communications function, NUREG-0654, table B-1, recommends that the TSC be staffed with two communicators within 60 minutes of an Alert or higher ECL and an additional communicator respond to the EOF within 60 minutes of a Site Area Emergency or higher ECL. The current Callaway RERP has one communicator respond to the TSC and an additional communicator respond to the EOF within 15 minutes during normal hours and 75 minutes during off hours of an Alert or higher ECL.

Other than the proposed removal of the 15-minute response goal for normal hours, discussed above, the licensee did not propose a change to the currently approved communication function. Because the proposed change would standardize ERO response time to the currently approved off hour goal of 75 minutes from an Alert or higher ECL and eliminate potential inconsistent activation of ERO facilities during normal work hours, the NRC staff finds the proposed elimination of the 15-minute normal hours goal acceptable.

The NRC staff reviewed the licensee's proposed change to the communications function and finds it acceptable based on the information discussed above. Therefore, NUREG-0654, Evaluation Criterion B.1.a, continues to be met and this change is acceptable.

#### Radiation Protection

For the radiation protection (RP) function, NUREG-0654, table B-1, recommends three RP technicians respond within 60 minutes and three additional RP technicians within 90 minutes of an Alert or higher ECL. The current Callaway RERP includes 14 radiological/chemistry support individuals responding to the TSC support area within 15 minutes during normal hours and 75 minutes during off hours of an Alert or higher ECL. These individuals provide radiological support for emergency teams, additional radiological support, field monitoring, and dose assessment.

Other than the proposed removal of the 15-minute response goal for normal hours, discussed above, the licensee did not propose a change to the currently approved RP function. Because the proposed change would standardize ERO response time to the currently approved off hour goal of 75 minutes from an Alert or higher ECL and eliminate potential inconsistent activation of ERO facilities during normal work hours, the NRC staff finds the proposed elimination of the 15-minute normal hours goal acceptable.

The NRC staff reviewed the licensee's proposed change to the RP function and finds it acceptable based on the information discussed above. Therefore, NUREG-0654, Evaluation Criterion B.1.a, continues to be met and this change is acceptable.

#### Supervision of RP Staff and Site RP

For the supervision of RP staff and site RP function, NUREG-0654, table B-1, recommends augmentation by a site RP coordinator in the TSC within 60 minutes of the declaration of an Alert or higher ECL, and by a RP manager in the EOF within 60 minutes of the declaration of a



Site Area Emergency or higher ECL. The current Callaway RERP has a health physics coordinator respond to the TSC and a protective measures coordinator respond to the EOF within 15 minutes during normal hours and 75 minutes during off hours of an Alert or higher ECL.

Other than the proposed removal of the 15-minute response goal for normal hours, discussed above, the licensee did not propose a change to the currently approved supervision of RP staff and site RP function. Because the proposed change would standardize ERO response time to the currently approved off hour goal of 75 minutes from an Alert or higher ECL and eliminate potential inconsistent activation of ERO facilities during normal work hours, the NRC staff finds the proposed elimination of the 15-minute normal hours goal acceptable.

The NRC staff reviewed the licensee's proposed change to the supervision of RP staff and site RP function and finds it acceptable based on the information discussed above. Therefore, NUREG-0654, Evaluation Criterion B.1.a, continues to be met and this change is acceptable.

#### Dose Assessments/Projections

The purpose of this function is to perform dose assessments and projections, and to provide input to the emergency director, until relieved.

For the dose assessment/projections function, NUREG-0654, table B-1, identifies an on-shift position and clarifies in note 1, which states in part, that, "Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time." The current Callaway RERP includes 14 RP/chemistry support individuals responding to the TSC support area within 15 minutes during normal hours and 75 minutes during off hours of an Alert or higher ECL. These individuals provide radiological support for emergency teams, additional radiological support, field monitoring, and dose assessment.

Other than the proposed removal of the 15-minute response goal for normal hours, discussed above, the licensee did not propose a change to the currently approved dose assessment/projections function. Because the proposed change would standardize ERO response time to the currently approved off hour goal of 75 minutes from an Alert or higher ECL and eliminate potential inconsistent activation of ERO facilities during normal work hours, the NRC staff finds the proposed elimination of the 15-minute normal hours goal acceptable.

The NRC staff reviewed the licensee's proposed change to the dose assessments/projections function and finds it acceptable based on the information discussed above. Therefore, NUREG-0654, Evaluation Criterion B.1.a, continues to be met and this change is acceptable.

#### Emergency Classifications

For the emergency classifications function, NUREG-0654, table B-1, recommends that the on-shift emergency classification advisor be augmented by a second emergency classification advisor in the TSC within 60 minutes of the declaration of an Alert or higher classification level. The current Callaway RERP includes a technical assessment coordinator that responds to the TSC and a plant assessment coordinator that responds to the EOF within 15 minutes during normal hours and 75 minutes during off hours of an Alert or higher ECL.

Other than the proposed removal of the 15-minute response goal for normal hours, discussed above, the licensee did not propose a change to the currently approved emergency classifications function. Because the proposed change would standardize ERO response time to the currently approved off hour goal of 75 minutes from an Alert or higher ECL and eliminate potential inconsistent activation of ERO facilities during normal work hours, the NRC staff finds the proposed elimination of the 15-minute normal hours goal acceptable.

The NRC staff reviewed the licensee's proposed change to the emergency classifications function and finds it acceptable based on the information discussed above. With the proposed change, the licensee's emergency plan will provide an individual to perform the emergency classifications function. Therefore, NUREG-0654, Evaluation Criterion B.1.a, continues to be met and this change is acceptable.

### Engineering

For the engineering function, NUREG-0654, table B-1, recommends the TSC minimum staff consist of one core/thermal hydraulics engineer to support the evaluation of reactor conditions: one mechanical engineer for coverage of ERO-related mechanical equipment, and one electrical/instrumentation and control (I&C) engineer for coverage of ERO-related electrical and I&C equipment. The current Callaway RERP identifies one reactor/nuclear engineer, one mechanical engineer, one electrical engineer, and one I&C engineer respond to the TSC within 15 minutes during normal hours and 75 minutes during off hours of an Alert or higher ECL.

Other than the proposed removal of the 15-minute response goal for normal hours, discussed above, the licensee did not propose a change to the currently approved engineering function. Because the proposed change would standardize ERO response time to the currently approved off hour goal of 75 minutes from an Alert or higher ECL and eliminate potential inconsistent activation of ERO facilities during normal work hours, the NRC staff finds the proposed elimination of the 15-minute normal hours goal acceptable.

The NRC staff reviewed the licensee's proposed change to the engineering function and finds it acceptable based on the information discussed above. Therefore, NUREG-0654, Evaluation Criterion B.1.a, continues to be met and this change is acceptable.

### Security

For the security function, NUREG-0654, table B-1, recommends security staffing be provided per the site-specific security plan. The current Callaway RERP includes security personnel per the site-specific security plan and is therefore consistent with NUREG-0654, table B-1.

Other than the proposed removal of the 15-minute response goal for normal hours, discussed above, the licensee did not propose a change to the currently approved security function. Because the proposed change would standardize ERO response time to the currently approved off hour goal of 75 minutes from an Alert or higher ECL and eliminate potential inconsistent activation of ERO facilities during normal work hours, the NRC staff finds the proposed elimination of the 15-minute normal hours goal acceptable.

The NRC staff reviewed the licensee's proposed change to the security function and finds it acceptable based on the information discussed above. Therefore, NUREG-0654, Evaluation Criterion B.1.a, continues to be met and this change is acceptable.

### Repair Team Activities

For the repair team activities function, NUREG-0654, table B-1, indicates that the following maintenance personnel should respond to the operations support center (OSC) to support repair team activities:

- One electrician and one mechanic within 60 minutes of the declaration of an Alert or higher ECL to provide support for emergency core cooling system equipment, event mitigation, and equipment repair.
- One I&C technician within 90 minutes of the declaration of an Alert or higher ECL to aid with logic manipulation, support for event mitigation and equipment repair, and support of digital I&C, if applicable.

The current Callaway RERP identifies two mechanics, two electricians, and one I&C technician who respond to the TSC within 15 minutes during normal hours and 75 minutes during off hours of an Alert or higher ECL.

Other than the proposed removal of the 15-minute response goal for normal hours, discussed above, the licensee did not propose a change to the currently approved repair team activities function. Because the proposed change would standardize ERO response time to the currently approved off hour goal of 75 minutes from an Alert or higher ECL and eliminate potential inconsistent activation of ERO facilities during normal work hours, the NRC staff finds the proposed elimination of the 15-minute normal hours goal acceptable.

The NRC staff reviewed the licensee's proposed change to the repair team activities function and finds it acceptable based on the information discussed above. With the proposed change, the licensee's emergency plan will be consistent with the NUREG-0654, table B1. Therefore, NUREG-0654, Evaluation Criterion B.1.a, continues to be met and this change is acceptable.

### Supervision of Repair Team Activities

For the supervision of repair team activities function, NUREG-0654, table B-1 recommends a lead OSC supervisor to staff the OSC within 60 minutes with a mechanical supervisor, a RP supervisor, an electrical supervisor, and an I&C supervisor (who may be combined with the electrical supervisor). The current Callaway RERP identifies one electrical and one mechanical emergency team coordinator who respond to the TSC within 15 minutes during normal hours and 75 minutes during off hours of an Alert or higher ECL.

Other than the proposed removal of the 15-minute response goal for normal hours, discussed above, the licensee did not propose a change to the currently approved supervision of repair team activities function. Because the proposed change would standardize ERO response time to the currently approved off hour goal of 75 minutes from an Alert or higher ECL and eliminate potential inconsistent activation of ERO facilities during normal work hours, the NRC staff finds the proposed elimination of the 15-minute normal hours goal acceptable.

The NRC staff reviewed the licensee's proposed change to the supervision of repair team activities function and finds it acceptable based on the information discussed above. The licensee provided adequate justification for the proposed change which differed from NUREG-0654, table B-1. Therefore, NUREG-0654 Evaluation Criterion B.1.a continues to be met and this change is acceptable.

### Field Monitoring Teams

For the field monitoring teams (FMTs) function, NUREG-0654, table B-1, recommends one onsite FMT and two offsite FMTs as minimum staff. Each FMT would consist of a driver and one qualified individual (i.e., a field monitor) to assess the area for radiation and contamination. The field monitors for the offsite FMTs would also provide radioactive plume tracking. The onsite FMT and one offsite FMT are recommended to be staffed within 60 minutes, and the second offsite FMT is recommended to be staffed within 90 minutes from the declaration of Alert or higher ECL. The current Callaway RERP provides two FMTs who respond to the EOF within 15 minutes during normal hours and 75 minutes during off hours of an Alert or higher ECL. The current Callaway RERP states that the FMT can be filled from paged personnel and/or staffed from personnel in the TSC support area.

Other than the proposed removal of the 15-minute response goal for normal hours, discussed above, the licensee did not propose a change to the currently approved FMTs function. Because the proposed change would standardize ERO response time to the currently approved off hour goal of 75 minutes from an Alert or higher ECL and eliminate potential inconsistent activation of ERO facilities during normal work hours, the NRC staff finds the proposed elimination of the 15-minute normal hours goal acceptable.

The NRC staff reviewed the licensee's proposed change to the FMTs function and finds it acceptable based on the information discussed above. Therefore, NUREG-0654, Evaluation Criterion B.1.a, continues to be met and this change is acceptable.

### Media Information

For the media information function, NUREG-0654, table B-1, recommends that the joint information system (JIS)/joint information center (JIC) staff address media inquiries within 60 minutes of the declaration of an Alert or higher ECL but notes that this function does not need to be performed at the TSC or OSC. NUREG-0654, table B-1, further recommends additional staff to perform JIC functions within 60 minutes of the declaration of a Site Area Emergency or General Emergency ECL. For the JIC/JIS, NUREG-0654, table B-1 notes state, in part: "Emergency response facility activation timing is not the concern; it is whether the facility staff is performing the stated function(s) within the time specified." NUREG-0654 does not specify an on-shift capability and does not identify specific staff positions for the minimum staff for the JIC/JIS. The current Callaway RERP has a JIC staff with a response goal of two hours from the declaration of an Alert or higher ECL. Additionally, the current Callaway RERP identifies an off-site liaison coordinator who responds to the EOF within 15 minutes during normal hours and 75 minutes during off hours of an Alert or higher ECL.

Other than the proposed removal of the 15-minute response goal for normal hours, discussed above, the licensee did not propose a change to the currently approved media information function. Because the proposed change would not affect JIC response and would standardize offsite coordinator response at the EOF to the currently approved off hour goal of 75 minutes from an Alert or higher ECL and eliminate potential inconsistent activation of ERO facilities during normal work hours, the NRC staff finds the proposed elimination of the 15-minute normal hours goal acceptable.

The NRC staff reviewed the licensee's proposed change to the media information function and finds it acceptable based on the information discussed above. Therefore, NUREG-0654, Evaluation Criterion B.1.a, continues to be met and this change is acceptable.

### 3.2.1.2 Conclusion

Based on an evaluation of standardizing the ERO augmentation response time to 75 minutes on the above functional areas, the NRC staff has determined that the proposed ERO response time of within 75 minutes of an Alert or higher ECL is acceptable. Therefore, the proposed Callaway RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A to Appendix E of 10 CFR Part 50.

### 3.2.2 Notification Methods and Procedures

NUREG-0654, Evaluation Criterion II.E, addresses planning standard 10 CFR 50.47(b)(5), which states:

Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and followup messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.

The current Callaway RERP states, in part, "Initial notifications to the State and local authorities shall be initiated within 15 minutes after the declaration of an emergency." The Callaway RERP further states, "Periodic updates are made to the State and local authorities upon activation of the State and local Emergency Operations Centers. These follow-up messages should be made whenever significant changes in plant status occur, or approximately every half hour when conditions are relatively stable." Regarding notification content, the Callaway RERP states, "Notifications inform the State and local authorities of the emergency classification, release information, plant status, Protective Action Recommendations, and radiological and meteorological data used to form protective action recommendations."

The proposed Callaway RERP would extend follow-up messages to 60 minutes. Additionally, the licensee proposed removal of "and the Plant remains at an UNUSUAL EVENT" as a condition to reduce notification frequency. Additionally, the proposed Callaway RERP would include the addition of "event" to specify that the conditions of concern are "event conditions" and the addition of "to an agreed upon frequency" to "the follow-up notification frequency may be reduced." The NRC staff determined that these additional terms are clarifications that are administrative. Because the licensee would continue to provide follow-up notifications whenever significant changes in plant status occur and would continue to describe the content of follow-up messages to response organizations and the public, the NRC staff finds to proposed change to the timing of follow-up notifications acceptable.

#### 3.2.2.1 Conclusion

Based on the above analysis, the NRC staff concludes that the proposed Callaway RERP would continue to provide follow-up notifications whenever significant changes in plant status occur and would continue to describe the content of follow-up messages to response organizations and the public. Therefore, the NRC staff finds that the proposed Callaway RERP, as changed, continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements of Section IV.A to Appendix E of 10 CFR Part 50 and provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Missouri State official was notified of the proposed issuance of the amendment on December 23, 2022. The State official had no comments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes the site emergency plan. The amendment relates, in part, to changes in recordkeeping, reporting, or administrative procedures or requirements. The amendment also relates, in part, to changing requirements with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration published in *Federal Register* on April 19, 2022 (87 FR 23274), and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

#### 6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: Ray Hoffman, NSIR  
Michael Norris, NSIR

Date: February 24, 2023

SUBJECT: CALLAWAY PLANT, UNIT NO. 1 - ISSUANCE OF AMENDMENT NO. 231 FOR REVISION TO THE RADIOLOGICAL EMERGENCY RESPONSE PLAN REGARDING RESPONSE AND NOTIFICATION GOALS (EPID L-2022-LLA-0024) DATED FEBRUARY 24, 2023

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OFFICE	NRR/DORL/LPL4/BC	NRR/DORL/D	NRR/D	NRR/DORL/LPL4/PM
NAME	JDixon-Herrity	BPham (GSuber for)	AVeil (MKing for)	MChawla (DGalvin for)
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