

Enclosure 2 to
ULNRC-06951

Enclosure 2
Environmental Assessment
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Environmental Assessment

Pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Part 26.9, "Specific exemptions," Union Electric Company (dba Ameren Missouri) is requesting a one-time exemption for Callaway Plant Unit 1 (Callaway) to allow the additional use of the less restrictive work hour limitations described in 10 CFR 26.205(d)(4) for workers in categories (a)(2) and (4) of 10 CFR 26.4 to support emergent repair activities that have extended the current Refuel 27 outage.

The period of the proposed exemption would commence on June 25, 2025, and be applicable for a period of 60 days.

Pursuant to 10 CFR 51.41, "Requirement to submit environmental information," the following is the environmental assessment for the proposed exemption. This environmental assessment is consistent with those provided in similar, previous exemption requests, including the example provided as Reference 1, which was approved by the NRC per Reference 2. The proposed exemption meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(25), as supported by the assessment below. Consequently, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment is required to be prepared in connection with granting the exemption.

- 1. Describe any change to the types, characteristics, or quantities of non-radiological effluents discharged to the environment as a result of the proposed exemption.*

Callaway Response:

There are no expected changes in the types, characteristics, or quantities of non-radiological effluents discharged to the environment as a result of the proposed exemption. The proposed exemption is administrative in nature and is limited to changing the timeframe during the current plant refueling outage when less restrictive hours can be worked. This does not result in any changes to the design basis requirements for the structures, systems, and components (SSCs) at Callaway that function to limit the release of non-radiological effluents during normal or accident conditions. The SSCs associated with limiting the release of non-radiological effluents to the environment will continue to perform (or be capable of performing) their functions, and as a result, there is no significant non-radiological effluent impact. In light of the administrative nature of the proposed exemption, there are no materials or chemicals introduced into the plant that could affect the characteristics or types of non-radiological effluents. In addition, the method of operation of non-radiological waste systems will not be affected by the proposed exemption.

- 2. Describe any changes to liquid radioactive effluents discharged as a result of the proposed exemption.*

Callaway Response:

There are no expected changes to liquid radioactive effluents discharged as a result of the proposed exemption. The proposed exemption is limited to administrative changes regarding the timeframe during the current plant refueling outage when less restrictive work hours can be worked and will not result in the production of any different quantity or type of radioactive material in the reactor coolant system. The proposed exemption will not result in changes to the design basis requirements for the SSCs at Callaway that function to limit the release of liquid radiological effluents during normal or accident conditions. The SSCs associated with limiting the release of liquid radiological effluents will

continue to perform (or be capable of performing) their functions, and as a result, there is no significant liquid radiological effluent impact.

- 3. Describe any changes to gaseous radioactive effluents discharged as a result of the proposed exemption.*

Callaway Response:

There are no expected changes to gaseous radioactive effluents discharged as a result of the proposed exemption. The proposed administrative change to the timeframe during the current plant refueling outage when less restrictive work hours can be worked will not result in the production of any different quantity or type of radioactive material in the reactor coolant system. Further, the change will not result in changes to the design basis requirements for SSCs at Callaway that function to limit the release of gaseous radiological effluents during normal or accident conditions. The SSCs associated with limiting the release of gaseous radiological effluents will continue to perform (or be capable of performing) their functions, and as a result, there is no significant gaseous radiological effluent impact.

- 4. Describe any change in the type or quantity of solid radioactive waste generated as a result of the proposed exemption.*

Callaway Response:

There are no expected changes to the solid radioactive waste generated by the facility as a result of the proposed exemption. The proposed administrative changes to the timeframe during the current plant refueling outage when less restrictive work hours can be worked has no impact on the processing, storage, or shipping of radwaste and will not result in the production of any different quantity or type of solid radioactive waste generated by the facility. In addition, radiation surveys will continue to be performed in accordance with plant radiation protection procedures. As a result, there is no significant solid radioactive waste impact.

- 5. What is the expected change in occupational dose as a result of the proposed exemption under normal and design basis accident conditions?*

Callaway Response:

The proposed exemption will allow less restrictive work hours for a limited period. The exemption will not increase or decrease the amount of work activities that must be completed for the undervessel repairs (or any workers performing or supporting the needed repairs) during the outage. As such, there is no change in the occupational dose incurred by the repair work, under the proposed exemption. In addition, the proposed exemption does not itself involve any permanent change to the plant design or operation that would adversely impact the protective measures built into the plant or plant procedures for limiting occupational dose under normal and design basis accident conditions.

- 6. What is the expected change in the public dose as a result of the proposed exemption under normal and design basis accident conditions?*

Callaway Response:

Public dose is not changed by the proposed exemption for normal operations or DBA conditions. As

noted in items 2 and 3 above, there is no basis to contemplate an increase in liquid or gaseous effluents as a result of the requested exemption. Further, the exemption does not involve any change to the design or design basis for plant SSCs credited to mitigate design basis accidents and limit the release of radioactivity to the environment.

7. What is the impact to land disturbance for the proposed exemption?

Callaway Response:

The proposed exemption will allow less restrictive work hours for a limited period during the current plant outage. The proposed exemption is administrative in nature and involves no construction activities around the facility or land disturbance.

In addition to the above, it should be noted (pursuant to 10 CFR 51.22(c)(25)(vi)(I)) that the requirements from which the exemption is sought involve requirements of an administrative, managerial or organizational nature.

Conclusion:

There is no significant radiological environmental impact associated with implementing less restrictive work hours for a limited period. The proposed changes will not result in a land disturbance, nor will they affect non-radiological plant effluents.

References:

1. TVA Letter to NRC, "Request for Exemption from Requirements of 10 CFR 26.205, 'Fitness for Duty Programs - Work Hours,'" dated February 5, 2025 (ML25036A070).
2. NRC Letter to TVA, "Sequoyah Nuclear Plant, Unit 2 - One-Time Exemption From The Requirements of 10 CFR 26.205(d)(7) (EPID L-2025-LLE-0007)," dated March 20, 2025 (ML25070A295 and ML25070A296).