

**O. Orders and Exemptions**

1 Page Attached

**Exemptions**

Callaway Plant was licensed to operate after January 1, 1979 and therefore licensing actions associated with 10 CFR 50 Appendix R were not issued as exemptions to the regulation. Therefore no exemptions need to be rescinded.

**Orders**

No Orders need to be superseded or revised. Ameren Missouri performed the following actions to make this determination:

A review of the Callaway Plant docketed correspondence was performed by the Callaway Plant licensing staff and the NFPA 805 Transition Team. The review was performed by performing electronic searches of the docketed correspondence files by using the Callaway Plant Licensing Research System (LRS). The Callaway Plant LRS contains Callaway Plant licensing documents, correspondence, and regulatory and guidance materials, including those documents pertaining to the operating license, the Technical Specifications, the fire protection program, the FSAR and subsequent revisions, correspondence sent to the NRC, and correspondence received from the NRC. The correspondence sent to the NRC includes any outstanding license amendment request submittals. A specific review was performed of the license amendment (ref. Attachment M) that incorporated the mitigation strategies required by Section B.5.b of Commission Order EA-02-026 (TAC No. MD4518) to ensure that any changes being made to ensure compliance with 10 CFR 50.48(c) does not invalidate existing commitments applicable to the plant. The review of this order confirmed that changes to the fire protection program will not affect measures required by B.5.b.

**P. RI-PB Alternatives to NFPA 805 10 CFR 50.48(c)(4)**

No risk-informed or performance-based alternatives to compliance with NFPA 805 (per 10 CFR 50.48(c)(4)) were utilized by Callaway Plant.

**Q. No Significant Hazards Evaluations**

3 Pages Attached

A written evaluation of the significant hazards consideration of a proposed license amendment is required by 10 CFR 50.92, "Issuance of Amendment." Ameren Missouri has evaluated the proposed amendment and determined that it involves no significant hazards consideration. According to 10 CFR 50.92, a proposed amendment to an operating license involves no significant hazards consideration if 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.

To the extent that these criteria apply to compliance with the requirements in NFPA 805, it is concluded that the proposed amendment does not involve a significant hazards consideration for the following reasons:

**1. Does the transition to NFPA 805 involve a significant increase in the probability or consequences of an accident previously evaluated?**

Response: No.

Operation of Callaway Plant in accordance with the proposed amendment does not increase the probability or consequences of accidents previously evaluated. Engineering analyses, which may include engineering evaluations, probabilistic safety assessments, and fire modeling calculations, have been performed to demonstrate that the performance-based requirements of NFPA 805 have been satisfied. The Final Safety Analysis Report (FSAR) documents the analyses of design basis accidents (DBA) at Callaway Plant. The proposed amendment does not affect accident initiators, nor does it alter design assumptions, conditions, or configurations of the facility that would increase the probability of accidents previously evaluated. Further, the changes to be made for fire hazard protection and mitigation do not adversely affect the ability of structures, systems, or components (SSCs) to perform their design functions for accident mitigation, nor do they affect the postulated initiators or assumed failure modes for accidents described and evaluated in the FSAR. SSCs required to safely shutdown the reactor and to maintain it in a safe shutdown condition will remain capable of performing their design functions.

The purpose of the proposed amendment is to permit Ameren Missouri to adopt a new fire protection licensing basis which complies with the requirements of 10 CFR 50.48(a) and (c) and the guidance in Regulatory Guide 1.205. The NRC considers that NFPA 805 provides an acceptable methodology and performance criteria for licensees to identify fire protection requirements that are an acceptable alternative to the 10 CFR 50 Appendix R required fire protection features (69 Fed. Reg. 33536, June 16, 2004). Engineering analyses, which may include engineering evaluations, probabilistic safety assessments, and fire modeling calculations, have been performed to demonstrate that the performance-based requirements of NFPA 805 have been met.

NFPA 805 taken as a whole, provides an acceptable alternative for satisfying General Design Criterion 3 (GDC 3) of Appendix A to 10 CFR 50, meets the underlying intent of the NRC's existing fire protection regulations and guidance, and provides for defense-in-depth. The goals, performance objectives, and performance criteria specified in Chapter 1 of the standard ensure that, if there are any increases in core damage frequency

(CDF) or risk, the increase will be small and consistent with the intent of the Commission's Safety Goal Policy.

Based on this, the implementation of the proposed amendment does not increase the probability of any accident previously evaluated. Equipment required to mitigate an accident remains capable of performing the assumed function(s). The proposed amendment will not affect the source term, containment isolation, or radiological release assumptions used in evaluating the radiological consequences of any accident previously evaluated. The applicable radiological dose criteria will continue to be met. Therefore, the consequences of any accident previously evaluated are not increased with the implementation of the proposed amendment.

**2. Does the transition to NFPA 805 create the possibility of a new or different kind of accident from any kind of accident previously evaluated?**

Response: No.

Operation of Callaway Plant in accordance with the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change does not alter the requirements or functions for systems required during accident conditions. Implementation of the new fire protection licensing basis which complies with the requirements of 10 CFR 50.48(a) and (c) and the guidance Regulatory Guide 1.205 will not result in new or different accidents.

The proposed amendment does not introduce new or different accident initiators, nor does it alter design assumptions, conditions, or configurations of the facility. The proposed amendment does not adversely affect the ability of SSCs to perform their design function. SSCs required to safely shutdown the reactor and maintain it in a safe shutdown condition remain capable of performing their design functions.

The purpose of the proposed amendment is to permit Ameren Missouri to adopt a new fire protection licensing basis which complies with the requirements of 10 CFR 50.48(a) and (c) and the guidance in Regulatory Guide 1.205. The NRC considers that NFPA 805 provides an acceptable methodology and appropriate performance criteria for licensees to identify fire protection systems and features that are an acceptable alternative to the 10 CFR 50, Appendix R required fire protection features (69 Fed. Reg. 33536, June 16, 2004).

The requirements of NFPA 805 address only fire protection and the impacts of fire on the plant that have previously been evaluated. Based on this, implementation of the proposed amendment would not create the possibility of a new or different kind of accident from any kind of accident previously evaluated. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures will be introduced as a result of this amendment. There will be no adverse effect or challenges imposed on any safety-related system as a result of this amendment. Therefore, the possibility of a new or different kind of accident from any kind of accident previously evaluated is not created with the implementation of this amendment.

**3. Does the transition to NFPA 805 involve a significant reduction in the margin of safety?**

Response: No.

Operation of Callaway Plant in accordance with the proposed amendment does not involve a significant reduction in the margin of safety. The proposed amendment does not alter the manner in which safety limits, limiting safety system settings or limiting

conditions for operation are determined. The safety analysis acceptance criteria are not affected by this change. The proposed amendment does not adversely affect existing plant safety margins or the reliability of equipment assumed to mitigate accidents in the FSAR. The proposed amendment does not adversely affect the ability of SSCs to perform their design function. SSCs required to safely shut down the reactor and to maintain it in a safe shutdown condition remain capable of performing their design functions.

The purpose of the proposed amendment is to permit Ameren Missouri to adopt a new fire protection licensing basis which complies with the requirements in 10 CFR 50.48(a) and (c) and the guidance in Regulatory Guide 1.205. The NRC considers that NFPA 805 provides an acceptable methodology and performance criteria for licensees to identify fire protection systems and features that are an acceptable alternative to the 10 CFR 50 Appendix R required fire protection features (69 Fed. Reg. 33536, June 16, 2004). Engineering analyses, which may include engineering evaluations, probabilistic safety assessments, and fire modeling calculations, have been performed to demonstrate that the performance based requirements of NFPA 805 do not result in a significant reduction in the margin of safety.

The proposed changes are evaluated to ensure that risk and safety margins are kept within acceptable limits. Therefore, the transition to NFPA 805 does not involve a significant reduction in the margin of safety.

The requirements of NFPA 805 are structured to implement the NRC's mission to protect public health and safety, promote the common defense and security, and protect the environment. NFPA 805 is also consistent with the key principles for evaluating license basis changes, as described in Regulatory Guide 1.174, is consistent with the defense-in-depth philosophy, and maintains sufficient safety margins.

Based on the evaluations noted in items 1, 2 and 3 above Ameren Missouri has concluded that the proposed amendment presents no significant hazards consideration per the requirements set forth in 10 CFR 50.92(c), and, accordingly a finding of "no significant hazards consideration" is justified.

**R. Environmental Considerations Evaluation**

1 Page Attached

Ameren Missouri has evaluated the proposed amendment against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. Ameren Missouri has determined that the proposed amendment meets the criteria for a categorical exclusion set forth in 10 CFR 51.22(c)(9). This determination is based on the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50.

The purpose of the proposed amendment is to permit Ameren Missouri to adopt a new fire protection licensing basis that complies with the requirements of 10 CFR 50.48(a) and (c) and the guidance in Regulatory Guide 1.205. The NRC considers that NFPA 805 provides an acceptable methodology and appropriate performance criteria for licensees to identify fire protection requirements that are an acceptable alternative to the 10 CFR 50 Appendix R required fire protection features (69 Fed. Reg. 33536, June 16, 2004).

The proposed amendment does not involve:

- (1) A significant hazards consideration.

As stated in Attachment Q, the proposed amendment does not involve a significant hazards consideration.

- (2) A significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

Compliance with NFPA 805 explicitly requires the attainment of performance criteria, objectives, and goals for radioactive releases to the environment. This radioactive release goal is to provide reasonable assurance that a fire will not result in a radiological release that affects the public, plant personnel, or the environment. The NFPA 805 transition based on fire suppression activities, but not involving fuel damage, has been evaluated and does not create any new source terms. Therefore, the proposed amendment will not change the types or amounts of any effluents that may be released offsite.

- (3) A significant increase in the individual or cumulative occupational radiation exposure

Compliance with NFPA 805 explicitly requires the attainment of performance criteria, objectives and goals for occupational exposures. Therefore, the proposed amendment will not change the types or amounts of occupational exposures based on the results of the analysis performed and documented in Attachment E to this document based on firefighting activities.

Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment is required to be developed in conjunction with the proposed amendment.