March 20, 1995

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Mr. Donald F. Schnell
Senior Vice President - Nuclear
Union Electric Company
Post Office Box 149
St. Louis, MO 63166

SUBJECT: AMENDMENT NO. 95 TO FACILITY OPERATING LICENSE NO. NPF-30 - CALLAWAY, UNIT 1 (TAC NO. M91225)

Dear Mr. Schnell:

The Commission has issued the enclosed Amendment No. 95 to Facility Operating License No. NPF-30 for the Callaway Plant, Unit 1. This amendment revises the Technical Specifications (TS) in response to your application dated December 9, 1994, as supplemented on December 22, 1994.

The amendment revises Technical Specification Surveillance Requirement 4.8.1.1.2f.7. The change removes the requirement to perform the hot restart test within 5 minutes of completing the 24-hour endurance test and places that requirement in a separate TS.

A copy of the Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,
Original signed by L. Raynard Wharton

L. Raynard Wharton, Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosures: 1. Amendment No. 95 to License No. NPF-30
2. Safety Evaluation
cc w/encls: See next page

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

March 20, 1995

Mr. Donald F. Schnell
Senior Vice President - Nuclear
Union Electric Company
Post Office Box 149
St. Louis, MO 63166

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Docket No. 50-483

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2. Safety Evaluation

cc w/encls: See next page

Mr. D. F. Schnell
Union Electric Company

Callaway Plant
Unit No. 1

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

UNION ELECTRIC COMPANY

CALLAWAY PLANT, UNIT 1

DOCKET NO. 50-483

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 95
License No. NPF-30

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment filed by Union Electric Company (UE, the licensee) dated December 9, 1994, as supplemented on December 22, 1994, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and 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, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-30 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 95 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into the license. UE shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance. The Technical Specifications are to be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

L. Raynard Wharton, Project Manager
Project Directorate III-3
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of issuance: March 20, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 95

OPERATING LICENSE NO. NPF-30

DOCKET NO. 50-483

Revise Appendix A Technical Specifications by removing the page identified below and inserting the enclosed page. The revised page is identified by the captioned amendment number and contains vertical lines indicating the area of change. The corresponding overleaf page, indicated by an asterisk, is also provided to maintain document completeness.

REMOVE	INSERT
3/4 8-5*	3/4 8-5*
3/4 8-6	3/4 8-6

b) Verifying the diesel starts** on the auto-start signal, energizes the emergency busses with permanently connected loads within 12 seconds, energizes the auto-connected shutdown loads through the shutdown sequencer and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steady-state voltage and frequency of the emergency busses shall be maintained at 4000 ± 320 volts and 60 ± 1.2 Hz during this test.

5) Verifying that on a Safety Injection test signal without loss-of-offsite power, the diesel generator starts** on the auto-start signal and operates on standby for greater than or equal to 5 minutes; and the offsite power source energizes the auto-connected emergency (accident) load through the LOCA sequencer. The generator voltage and frequency shall be 4000 ± 320 volts and 60 ± 1.2 Hz within 12 seconds after the auto-start signal; the generator steady-state generator voltage and frequency shall be maintained within these limits during this test;

6) Simulating a loss-of-offsite power in conjunction with a Safety Injection test signal, and

a) Verifying deenergization of the emergency busses and load shedding from the emergency busses;

b) Verifying the diesel starts** on the auto-start signal, energizes the emergency busses with permanently connected loads within 12 seconds, energizes the auto-connected emergency (accident) loads through the LOCA sequencer and operates for greater than or equal to 5 minutes while its generator is loaded with emergency loads. After energization, the steady-state voltage and frequency of the emergency busses shall be maintained at 4000 ± 320 volts and 60 ± 1.2 Hz during this test; and

c) Verifying that all automatic diesel generator trips, except high jacket coolant temperature, engine overspeed, low lube oil pressure, high crankcase pressure, start failure relay, and generator differential, are automatically bypassed upon loss of voltage on the emergency bus concurrent with a Safety Injection Actuation signal.

**This test shall be preceded by an engine prelube period and/or other warmup procedures recommended by the manufacturer so that the mechanical stress and wear on the diesel engine is minimized.

SURVEILLANCE REQUIREMENTS (Continued)

7) Verifying the diesel generator operates for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to an indicated 6600 to 6821 kW*** and during the remaining 22 hours of this test, the diesel generator shall be loaded to an indicated 6000 to 6201 kW.*** The generator voltage and frequency shall be 4000 ± 320 volts and 60 + 1.2, -3 Hz within 12 seconds after the start signal; the steady-state generator voltage and frequency shall be maintained within 4000 ± 320 volts and 60 ± 1.2 Hz during this test;

8) Verifying that the auto-connected loads to each diesel generator do not exceed 6201 kW;

9) Verifying the diesel generator's capability to:

   a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,

   b) Transfer its loads to the offsite power source, and

   c) Be restored to its standby status.

10) Verifying that with the diesel generator operating in a test mode, connected to its bus, a simulated Safety Injection signal overrides the test mode by: (1) returning the diesel generator to standby operation, and (2) automatically energizing the emergency loads with offsite power;

11) Verifying that the fuel transfer pump transfers fuel from each fuel storage tank to the day tank of each diesel via the installed cross-connection lines;

12) Verifying that the automatic LOCA and shutdown sequence timer is OPERABLE with the interval between each load block within ± 10% of its design interval; and

13) Verifying the diesel generator's hot restart capability by operating the diesel generator for greater than or equal to 2 hours at an indicated load of 5580 to 6201 kW, shutting down the diesel and restarting it within 5 minutes. On the restart, the diesel generator voltage and frequency shall be 4000 ± 320 volts and 60 ± 1.2 Hz within 12 seconds after the start signal (load test not required after restart).

*** This band is meant as guidance to avoid routine overloading of the engine. Loads in excess of this band for special testing under direct monitoring or momentary variations due to changing bus loads shall not invalidate this test.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 95 TO FACILITY OPERATING LICENSE NO. NPF-30

UNION ELECTRIC COMPANY

CALLAWAY PLANT, UNIT 1

DOCKET NO. 50-483

1.0 INTRODUCTION

By letter dated December 9, 1994, as supplemented on December 22, 1994, Union Electric Company (UEC) requested an amendment to Operating License NPF-30, which would revise the Callaway Plant Technical Specifications' (TS) Surveillance Requirements (SR) 4.8.1.1.2f.7 and 4.8.1.1.2f.13. Specifically, the proposed changes would eliminate the required loss of offsite power (LOOP) in conjunction with an engineered safety features (ESF) actuation signal test after the 24-hour endurance test. The changes also separate the hot restart test of the emergency diesel generator (EDG) from the 24-hour loaded run test and add a new surveillance requirement for a simple hot restart test after a 2-hour loaded run of the EDG. Separating these two tests will give plant operators added flexibility and prevent critical path complications during outages.

2.0 EVALUATION

The current SR 4.8.1.1.2f.7 requires that within 5 minutes of shutting down the EDG after the 24-hour endurance test run, a LOOP in conjunction with an ESF actuation signal test be simulated. The licensee proposes to separate the 5-minute EDG hot restart test from the 24-hour endurance test, eliminate the requirement for the LOOP plus ESF signal test after the 24-hour endurance test, and add a new surveillance requirement of a simple hot restart test after a 2-hour loaded run of the EDG.

The new proposed SR 4.8.1.1.2f.13 provides the verification of EDG hot restart capability by starting the EDG and verifying that it attains rated voltage and frequency within the required time. The purpose of the EDG hot restart surveillance is to demonstrate functional capabilities of the EDG to restart from full-load temperature conditions. The proposed SR 4.8.1.1.2f.13 requires an 18-month surveillance test to restart the EDG after at least 2 hours of operation at the continuous rating. This would adequately demonstrate restart capability of the EDG from full-load temperature conditions. The hot restart test could be scheduled for a different time, so as to alleviate test scheduling difficulties and the financial burden that would result from an extended outage. This modified surveillance requirement has been examined and accepted by the NRC staff in the new improved Standard Technical Specifications (NUREG-1431).

The staff also finds the licensee's proposal to eliminate the requirement for the LOOP coincident with an ESF actuation signal test after the 24-hour endurance test to be acceptable, because the objective of this test will continue to be met by SR 4.8.1.1.2f.6b at Callaway. On the basis of the above, the staff finds the proposed changes to be acceptable.

3.0 STATE CONSULTATION

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

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding (60 FR 6315). Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

5.0 CONCLUSION

The staff 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) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: O. Chopra

Date: March 20, 1995