February 17, 1988

Docket No. 50-483

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

Dear Mr. Schnell:

The Commission has issued the enclosed Amendment No. 34 to Facility Operating License No. NPF-30 for the Callaway Plant, Unit 1. This amendment is in response to your application dated September 10, 1987.

The amendment revises Technical Specification Table 4.3-1 surveillance requirements and includes the addition of functional testing requirements for the reactor trip bypass breakers prior to placing them in service during monthly reactor trip breaker testing and during refueling outages.

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:

Thomas W. Alexion, Project Manager
Project Directorate III-3
Division of Reactor Projects

Enclosures:
1. Amendment No. 34 to License No. NPF-30
2. Safety Evaluation

cc w/enclosures:
See next page

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Subject to change to SE, p.2

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

UNION ELECTRIC COMPANY

CALLAWAY PLANT, UNIT 1

DOCKET NO. STN 50-483

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 34
License No. NPF-30

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

   A. The application for amendment filed by Union Electric Company (the licensee) dated September 10, 1987 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. 34, 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Kenneth E. Perkins, Director
Project Directorate III-3
Division of Reactor Projects

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 17, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 34

OPERATING LICENSE NO. NPF-30

DOCKET NO. 50-483

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change. Corresponding overleaf pages are provided to maintain document completeness.

REMOVE	INSERT
3/4 3-11	3/4 3-11
3/4 3-12*	3/4 3-12*
3/4 3-12a	3/4 3-12a

* Overleaf page

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
18. Reactor Trip System Interlocks (Continued)						
d. Power Range Neutron Flux, P-10	N.A.	R(4)	R	N.A.	N.A.	1,2
e. Turbine Impulse Chamber Pressure, P-13	N.A.	R	R	N.A.	N.A.	1
19. Reactor Trip Breaker	N.A.	N.A.	N.A.	M (7, 11)	N.A.	1,2,3*,4*,5*
20. Automatic Trip and Interlock Logic	N.A.	N.A.	N.A.	N.A.	M(7)	1,2,3*,4*,5*
21. Reactor Trip Bypass Breaker	N.A.	N.A.	N.A.	M(17), R(18)	N.A.	1,2,3*,4*,5*

TABLE 4.3-1 (Continued)

TABLE NOTATIONS

*Only if the Reactor Trip System breakers happen to be closed and the Control Rod Drive System is capable of rod withdrawal.

#The specified 18 month frequency may be waived for Cycle I provided the surveillance is performed prior to restart following the first refueling outage or June 1, 1986, whichever occurs first. The provisions of Specification 4.0.2 are reset from performance of this surveillance.

##Below P-6 (Intermediate Range Neutron Flux interlock) Setpoint.

###Below P-10 (Low Setpoint Power Range Neutron Flux interlock) Setpoint.

(1) If not performed in previous 31 days.

(2) Comparison of calorimetric to excore power indication above 15% of RATED THERMAL POWER. Adjust excore channel gains consistent with calorimetric power if absolute difference is greater than 2%. The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.

(3) Single point comparison of incore to excore AXIAL FLUX DIFFERENCE above 15% of RATED THERMAL POWER. Recalibrate if the absolute difference is greater than or equal to 3%. The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.

(4) Neutron detectors may be excluded from CHANNEL CALIBRATION.

(5) Detector plateau curves shall be obtained, evaluated and compared to manufacturer's data. For the Intermediate Range and Power Range Neutron Flux channels the provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.

(6) Incore - Excore Calibration, above 75% of RATED THERMAL POWER. The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1. Determination of the loop specific vessel ΔT value should be made when performing the Incore/Excore quarterly recalibration, under steady state conditions.

(7) Each train shall be tested at least every 62 days on a STAGGERED TEST BASIS. The TRIP ACTUATING DEVICE OPERATIONAL TEST shall independently verify the OPERABILITY of the Undervoltage and Shunt Trip Attachments of the Reactors Trip Breakers.

(8) Deleted

(9) Quarterly surveillance in MODES 3*, 4*, and 5* shall also include verification that permissives P-6 and P-10 are in their required state for existing plant conditions by observation of the permissive annunciator window. Quarterly surveillance shall include verification of the Boron Dilution Alarm Setpoint of less than or equal to an increase of twice the count rate within a 10-minute period.

TABLE 4.3-1 (Continued)

TABLE NOTATIONS

(10) Setpoint verification is not required.

(11) Following maintenance or adjustment of the Reactor trip breakers, the TRIP ACTUATING DEVICE OPERATIONAL TEST shall include independent verification of the Undervoltage and Shunt trips.

(12) At least once per 18 months during shutdown, verify that on a simulated Boron Dilution Doubling test signal the normal CVCS discharge valves will close and the centrifugal charging pumps suction valves from the RWST will open within 30 seconds.

(13) CHANNEL CALIBRATION shall include the RTD bypass loops flow rate.

(14) Each channel shall be tested at least every 92 days on a STAGGERED TEST BASIS.

(15) The surveillance frequency and/or MODES specified for these channels in Table 4.3-2 are more restrictive and, therefore, applicable.

(16) The TRIP ACTUATING DEVICE OPERATIONAL TEST shall independently verify the OPERABILITY of the Undervoltage and Shunt Trip circuits for the Manual Reactor Trip function. The test shall also verify the OPERABILITY of the Bypass Breaker trip circuit.

(17) Local manual shunt trip prior to placing breaker in service.

(18) Automatic Undervoltage Trip.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 34 TO FACILITY OPERATING LICENSE NO. NPF-30

UNION ELECTRIC COMPANY
CALLAWAY PLANT, UNIT 1
DOCKET NO. STN 50-483

1.0 INTRODUCTION

By letter dated September 10, 1987, Union Electric Company submitted a request for changes to the Technical Specification Table 4.3-1 surveillance requirements and to include the addition of functional testing requirements for the reactor trip bypass breakers prior to placing them in service during monthly reactor trip breaker testing and during refueling outages.

2.0 DISCUSSION

On April 3, 1987, the staff issued Amendment No. 19 to Operating License No. NPF-30. The amendment changed the Technical Specifications regarding the reactor trip breakers to require 48-hour restoration in the event of loss of one of the diverse reactor trip features (undervoltage or shunt trip attachment), independent verification of the operability of the undervoltage and shunt trip attachments, and independent testing of the control room manual reactor trip switch contacts during each refueling outage.

Amendment No. 19 reflected the licensee's response to a portion of those changes specified in Generic Letter 85-09. However, the licensee did not propose a Technical Specification change to incorporate functional testing of bypass breakers prior to placing them in operation. The staff found the licensee's position with regard to bypass breakers unacceptable and requested the licensee to propose changes to the Callaway Technical Specifications to provide for bypass breaker testing consistent with the staff position stated in Generic Letter 85-09.

On September 10, 1987, the licensee requested changes to the Callaway Technical Specifications to include the addition of functional testing requirements for the reactor trip bypass breakers. The licensee also stated that the September 10, 1987 application superseded their original position on bypass breaker testing.

3.0 EVALUATION

The licensee has proposed the following changes with respect to reactor trip bypass breaker testing. Prior to the monthly reactor trip breaker tests, the bypass breaker for that train will be racked to the test position, operability will be verified by a local manual shunt trip, and then the breaker will be racked into the operate position and closed to permit testing of its associated reactor trip breaker. Since the operation of the undervoltage

trip attachments for the bypass breakers is controlled by the opposite train of the reactor protection system, it is proposed that this feature be tested during refueling outages only.

In Generic Letter 85-09 the staff concluded that the above methods for testing bypass breakers are acceptable. The basis for this conclusion included the fact that a readily available means does not exist to permit online testing of the automatic undervoltage trip feature of the bypass breakers and that confirmation of the operability of the shunt trip attachment prior to placing the bypass breaker in service provides additional assurance that the bypass breaker could be tripped via a manual reactor trip. Since each bypass breaker is exercised prior to use through actuation via the shunt trip which has a margin of operating force sufficient to overcome any resistance to actuation caused by accumulated dirt, corrosion or lubricant aging, this provides greater assurance that the bypass breaker will trip in response to a valid automatic trip signal. Also, because this bypass breaker trip prior to use tests the shunt trip which accomplishes the manual trip function, it provides greater assurance that the bypass breaker can be tripped manually by the operator when required.

4.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change to 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/or a change to the surveillance requirement. 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. 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; and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 ACKNOWLEDGEMENT

Principal Contributor: T. Alexion, PDIII-3

Dated: February 17, 1988