

March 26, 1992

*see correction
letter of 5/6/92*

Docket No. 50-483

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

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Dear Mr. Schnell:

SUBJECT: AMENDMENT NO. 69 TO FACILITY OPERATING LICENSE NO. NPF-30
(TAC NO. M82221)

The Commission has issued the enclosed Amendment No. 69 to Facility Operating License No. NPF-30 for the Callaway Plant, Unit 1. This amendment revises the Technical Specifications in response to your application dated November 22, 1991.

The amendment revises TS 3/4.3.2 and 3/4.7.6 to take exception to TS 3.0.4 which prevents entry into an operational mode unless the conditions for the Limiting Condition for Operation are met. The revision allows operational mode changes in MODES 5 and 6 while certain control room ventilation TS action statements are in effect.

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,

151

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

Enclosures:

1. Amendment No. 69 to License No. NPF-30
2. Safety Evaluation

cc w/enclosures:
See next page

**SEE PREVIOUS CONCURRENCES*

LA:PDIII-3:DRPW

PM:PDIII-3:DRPW

D:PDIII-3:DRPW

*OTSB

*OGC-OWF

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CPW

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DOCUMENT NAME: CAL82221

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

March 26, 1992

Docket No. 50-483

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

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Sincerely,

A handwritten signature in cursive script that reads "L. Raynard Wharton".

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

Enclosures:

1. Amendment No. 69 to License No. NPF-30
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. D. F. Schnell
Union Electric Company

Callaway Plant
Unit No. 1

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University City, Missouri 65130



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

UNION ELECTRIC COMPANY

CALLAWAY PLANT, UNIT 1

DOCKET NO. 50-483

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 69
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 November 22, 1991, 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:

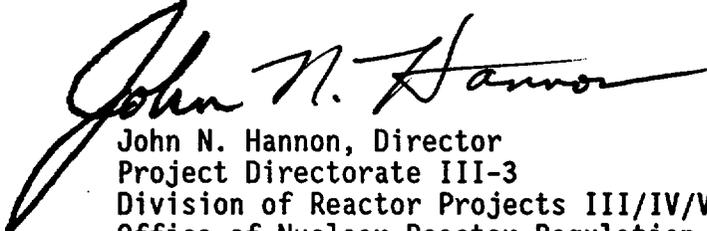
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(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 69 , 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 immediately to be implemented no later than 30 days from the date of its issuance. The licensee will immediately inform the Commission, in writing, of the implementation date.

FOR THE NUCLEAR REGULATORY COMMISSION



John N. Hannon, Director
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of issuance: March 26, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 69

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

3/4 3-19
3/4 3-20
3/4 7-14

INSERT

3/4 3-19
3/4 3-20
3/4 7-14

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
8. Loss of Power					
a. 4 kV Bus Undervoltage -Loss of Voltage	4/Bus	2/Bus	3/Bus	1, 2, 3, 4	19*
b. 4 kV Bus Undervoltage -Grid Degraded Voltage	4/Bus	2/Bus	3/Bus	1, 2, 3, 4	19*
9. Control Room Isolation					
a. Manual Initiation	2	1	2	All	26****
b. Automatic Actuation Logic and Actuation Relays (SSPS)	2	1	2	1, 2, 3, 4	26
c. Automatic Actuation Logic and Actuation Relays (BOP)ESFAS)	2	1	2	All	26****
d. Phase "A" Isolation	See Item 3.a above for all Phase "A" Isolation initiating functions and requirements.				
10. Solid-State Load Sequencer	2-1/Train	1/Train	2-1/Train	1, 2, 3, 4	25
11. Engineered Safety Features Actuation System Interlocks					
a. Pressurizer Pressure, P-11	3	2	2	1, 2, 3	20
b. Reactor Trip, P-4	4-2/Train	2/Train	2/Train	1, 2, 3	22

CALLAWAY - UNIT 1

3/4 3-19

Amendment No. 69

TABLE 3.3-3 (Continued)

TABLE NOTATION

#Trip function may be blocked in this MODE below the P-11 (Pressurizer Pressure Interlock) Setpoint.

##Trip function automatically blocked above P-11 and may be blocked below P-11 when Safety Injection on low steam line pressure is not blocked.

###Trip function may be blocked just before shutdown of the last operating main feedwater pump and restored just after the first main feedwater pump is put into service (following its startup trip test).

*The provisions of Specification 3.0.4 are not applicable.

**One in Separation Group 1 and one in Separation Group 4.

***The de-energization of one train of BOP-ESFAS actuation logic and actuation relay renders two of the four channels inoperable. Action Statement 21 applies to both Functional Units 6.c and 6.g in this case.

****The provisions of Specification 3.0.4 are not applicable in MODES 5 and 6.

ACTION STATEMENTS

- ACTION 14 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.
- ACTION 15 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed until performance of the next required ANALOG CHANNEL OPERATIONAL TEST provided the inoperable channel is placed in the tripped condition within 1 hour.
- ACTION 16 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the bypass condition and the Minimum Channels OPERABLE requirement is met. One additional channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1.
- ACTION 17 - With less than the Minimum Channels OPERABLE requirement, operation may continue provided the containment purge supply and exhaust valves are maintained closed.
- ACTION 18 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- ACTION 19 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:
- a. The inoperable channel is placed in the tripped condition within 1 hour, and

PLANT SYSTEMS

3/4.7.5 ULTIMATE HEAT SINK

LIMITING CONDITION FOR OPERATION

3.7.5 The ultimate heat sink (UHS) shall be OPERABLE with:

- a. A minimum water level at or above 13.25 feet (E1 831.25 feet MSL) from the bottom of the UHS,
- b. An average water temperature of less than or equal to 90°F, and
- c. Two UHS cooling tower trains (2 cells per train).

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

- a. With the UHS inoperable as a result of level or temperature, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With one UHS cooling tower train inoperable, restore both trains to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.5.1 The UHS shall be determined OPERABLE at least once per 24 hours by verifying the average water temperature and water level to be within their limits.

4.7.5.2 The UHS cooling tower trains shall be demonstrated OPERABLE at least once per 31 days by verifying that each cooling tower fan operates for at least 15 minutes in both the slow and fast mode and at least once per 18 months by visually inspecting and verifying no abnormal breakage or degradation of the fill materials.

4.7.5.3 The UHS shall be determined OPERABLE at least once per 31 days by visually inspecting the UHS riprap for any abnormal degradation which might lead to blockage of the ESW pump suction.

PLANT SYSTEMS

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.6 Two independent Control Room Emergency Ventilation Systems shall be OPERABLE.

APPLICABILITY: All MODES.*

ACTION:

MODES 1, 2, 3 and 4:

With one Control Room Emergency Ventilation System inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5 and 6:

- a. With one Control Room Emergency Ventilation System inoperable, restore the inoperable system to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE Control Room Emergency Ventilation System in the recirculation mode.
- b. With both Control Room Emergency Ventilation Systems inoperable, or with the OPERABLE Control Room Emergency Ventilation System, required to be in the recirculation mode by ACTION a., not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

SURVEILLANCE REQUIREMENTS

4.7.6 Each Control Room Emergency Ventilation System shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 84°F;
- b. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers of both the Filtration and Pressurization Systems and verifying that the Pressurization System operates for at least 10 continuous hours with the heaters operating;

*The provisions of Specification 3.0.4 are not applicable in MODES 5 and 6.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 69 TO FACILITY OPERATING LICENSE NO. NPF-30

UNION ELECTRIC COMPANY

CALLAWAY PLANT, UNIT 1

DOCKET NO. 50-483

1.0 INTRODUCTION

In a letter dated November 22, 1991, the licensee identified overly conservative Technical Specifications (TSs) requirements, based on guidance provided in Generic Letter 87-09. GL 87-09 acknowledges that it is overly conservative to restrict operational mode changes under conditions which provide an acceptable level of safety for unlimited continued operation. The referenced TSs are 3/4.3.2, Engineered Safety Features Actuation System Instrumentation, and 3/4.7.6, Control Room Emergency Ventilation System (CREVS).

The Control Room Emergency Ventilation System provides the control room with a conditioned atmosphere following various Design Basis Accidents (DBAs) such as Loss of Coolant Accident (LOCA), fuel handling accident, rod ejection, main steamline break and steam generator tube rupture. This system ensures that the instrumentation and equipment located in the control room will be maintained within their design temperatures and that the control room will remain habitable.

The CREVS consists of two separate and redundant trains which recirculate the control room air. The system initiates filtered ventilation of the control room following receipt of an actuation signal. The CREVS design basis is established by the consequences of the limiting DBA which is a LOCA in MODEs 1, 2, 3, and 4 and a fuel handling accident in MODEs 5 and 6. The LOCA analysis assumes that only one train of the CREVS is functional due to a single failure which disables the other train.

During refueling outages, train-related work typically begins as soon as the refueling pool is flooded for fuel movement. Normally the "B" safety train work is completed first, followed by the "A" safety train work. The refuel sequence normally consists of offload, work required during offload, and reload. Train-related work normally includes the following systems: Diesel Generators (D/G), Essential Service Water (ESW), Component Cooling Water (CCW), Residual Heat Removal (RHR), Centrifugal Charging Pump (CCP) and Electrical Buses associated with a particular train. When the first train

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work is completed, it is restored before going to the next train. With fuel loaded and train work completed, the refuel pool can be drained and the vessel head replaced.

The licensee stated that problems arise with the start of fuel movement back for the reload. With fuel offloaded, the plant is considered to be in a no-mode condition. The first element back into the vessel causes entry into Mode 6. Since one of the safety trains is out of service and T/S 3.7.6 requires both trains of the CREVS operable, the transition from no-mode to Mode 6 is difficult (no ESW available from out-of-service train to associated CREVS). This problem was avoided in refueling number 4 by restoring the out-of-service train of ESW long enough to put the first assembly in the vessel. The ESW system was then taken back out of service; however, had work started or a problem been discovered with this safety train, movement of the first fuel assembly could not start.

The licensee requested an amendment to revise the action statements of TSs 3/4.3.2 and 3/4.7.6 such that an exception to TS 3.0.4 is allowed which permits continued unit operation for an unlimited period of time. The licensee stated that entry into one of the above action statements as currently written would restrict operating mode changes due to TS 3.0.4. This could result in a delay in fuel loading. The licensee, therefore, proposes the change on the basis that the action statement establishes an acceptable level of safety for continual unit operation, hence, mode changes need not be restricted.

2.0 EVALUATION

The CREVS and its actuation instrumentation function to maintain control room habitability. The revised actions would allow continued operation for an unlimited period of time after the CREVS has been placed in its emergency (recirculation) mode of operation.

The proposed change would add the stipulation to TS 3.3.2 (Table 3.3-3, ACTION 26) and 3.7.6 (MODEs 5 and 6, ACTION a.) that the provisions of Specification 3.0.4 are not applicable. The proposed change would allow Callaway Plant to make operational MODE changes in MODEs 5 and 6 while operating in accordance with existing ACTIONS, which allow continued operation for an unlimited time period. This change is consistent with the guidance provided in Generic Letter 87-09, which acknowledges that it is overly conservative to restrict operational MODE changes under conditions which provide an acceptable level of safety for unlimited continued operation. This proposed change will thereby eliminate a situation that could result in a delay in fuel loading.

Based on the guidance provided in the generic letter, the staff finds these changes, as proposed by the licensee, 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

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. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluent 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 (57 FR 2602) 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, (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: L. Raynard Wharton

Date: March 26, 1992