

February 24, 1998

Mr. Garry L. Randolph  
Vice President and Chief Nuclear Officer  
Union Electric Company  
Post Office Box 620  
Fulton, Missouri 65251

SUBJECT: CALLAWAY PLANT - AMENDMENT NO.121 TO FACILITY  
OPERATING LICENSE NO. NPF-30 (TAC NO. M99417)

Dear Mr. Randolph:

The Commission has issued the enclosed Amendment No.121 to Facility Operating License No. NPF-30 for the Callaway Plant, Unit 1. This amendment consists of changes to the Technical Specifications (TS) in response to your application dated August 8, 1997.

The amendment revises the surveillance requirements of TS 3/4.7.4, "Essential Service Water System" by removing the requirement to perform 3/4 7.4.b, 4.7.4.b.2 and 4.7.4.c during shutdown.

A copy of our related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,  
Original Signed By  
Barry C. Westreich, Project Manager  
Project Directorate IV-2  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosures: 1. Amendment No.121 to NPF-42  
2. Safety Evaluation

cc w/encls: See next page

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OFFICE	PDIV2/PM	PDIV-2/LA	TSB	DSSA/SPLB	OGC <i>CB</i>
NAME	<i>BW</i> Westreich	<i>ESP</i> EPeyton	<i>WOB</i> WBeckner	<i>JM</i> LMarsh	<i>R Bachmann</i>
DATE	1/21/98	1/21/98	2/9/98	1/22/98	2/18/98 11/98

OFFICIAL RECORD

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PDR ADOCK 05000483  
P PDR



CP-1

Mr. Garry L. Randolph

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February 24, 1998

cc w/encls:

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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. 121  
License No. NPF-30

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the Callaway Plant Unit 1 (the facility) Facility Operating License No. NPF-30 filed by the Union Electric Company (the Company), dated August 8, 1997, 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, as amended, 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 license 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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P PDR

ATTACHMENT TO LICENSE AMENDMENT NO. 121

FACILITY OPERATING LICENSE NO. NPF-30

DOCKET NO. 50-483

Replace the following page of the Appendix A Technical Specifications with the attached page. The revised page is identified by Amendment number and contains marginal lines indicating the areas of change.

REMOVE

3/4 7-12

INSERT

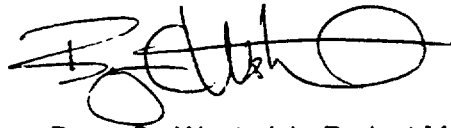
3/4 7-12

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 121 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read 'B. Westreich', with a large circular flourish at the end.

Barry C. Westreich, Project Manager  
Project Directorate IV-2  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: February 24, 1998

## PLANT SYSTEMS

### 3/4.7.4 ESSENTIAL SERVICE WATER SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.7.4 At least two independent essential service water (ESW) loops shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

With only one ESW loop OPERABLE, restore at least two ESW loops 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

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4.7.4 At least two ESW loops shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position. In addition, at least once per 31 days, an ANALOG CHANNEL OPERATIONAL TEST of the differential pressure instrumentation for automatic isolation of the ESW to the air compressors shall be performed;
- b. At least once per 18 months by verifying that:
  - 1) Each automatic valve servicing safety-related equipment or isolating the non-nuclear safety-related portion of the system actuates to its correct position on a Loss-of-Power or Safety Injection test signal and on a simulated High Differential Pressure test signal; and
  - 2)# Each ESW System pump starts automatically on a Safety Injection, Loss-of-Power test signal, and during shutdown on a Low Suction Pressure (AFW pumps).
- c. At least once per 18 months by performing a CHANNEL CALIBRATION of the differential pressure instrumentation for automatic isolation of the ESW to the air compressors.

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#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.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 121 TO FACILITY OPERATING LICENSE NO. NPF-30

UNION ELECTRIC COMPANY

CALLAWAY PLANT, UNIT 1

DOCKET NO. 50-483

1.0 INTRODUCTION

By letter dated August 8, 1997, Union Electric Company (the licensee) requested changes to the Technical Specifications (Appendix A to Facility Operating License No. NPF-30) for the Callaway Plant. The proposed changes would revise the Technical Specification (TS) to remove the requirement that Surveillance Requirements 4.7.4.b and 4.7.4.c associated with testing of the essential service water (ESW) are performed while the plant is shutdown.

2.0 BACKGROUND

The Callaway Plant ESW system consists of two separate 100 percent capacity, safety related, cooling water trains. Each train consists of a self cleaning strainer, prelube tank, one 100 percent capacity pump, piping, valving and associated instrumentation. The pumps automatically start on receipt of a safety injection signal, low suction pressure to the auxiliary feedwater pumps (AFW) or loss of offsite power, at which time system valves are aligned to their required post- accident positions. The ESW system provides a heat sink for the removal of process and operating heat from safety related components during a design basis accident or transient. During normal operation and shutdown conditions the system provides cooling for various safety and non-safety related components. The system also provides emergency makeup to the spent fuel pool and component cooling water system and is the backup source of water to the AFW system.

TS Surveillance Requirement 4.7.4.b.1 requires that the ESW loops shall be demonstrated operable at least once every 18 months during shutdown, by verifying that each automatic valve servicing safety-related equipment or isolating the non-nuclear safety-related portion of the system actuates to its correct position on a loss-of-power or safety injection test signal and a simulated high differential pressure test signal. TS Surveillance Requirement 4.7.4.b.2 requires that the ESW loops shall be demonstrated operable at least once every 18 months during shutdown by verifying that each ESW pump starts automatically on a safety injection, low suction pressure (AFW pumps) and loss-of-power signal. TS Surveillance Requirement 4.7.4.c requires that the ESW loops shall be demonstrated operable at least once every 18

months during shutdown by performing a channel calibration of the differential pressure instrumentation for automatic isolation of the ESW air compressors.

### 3.0 EVALUATION

Surveillance activities in accordance with TS 4.7.4.b and 4.7.4.c to demonstrate operability of the ESW system are currently required to be performed every 18 months during shutdown. The licensee is requesting to revise the TS surveillance requirements to delete the requirement to perform the ESW system testing that is required to be performed every 18 months during shutdown. This would allow testing of the valve and pumps online. However, the portion of the surveillance testing verifying the ESW system pump start on a low suction pressure to the AFW pump would still be required to be performed with the plant shutdown due to test conditions rendering all AFW pumps inoperable.

The licensee considers testing of portions of the ESW system online acceptable because the test procedure does not involve the potential for damage to any plant equipment, the test procedures minimize the potential for accidentally tripping the plant, and the provisions for on-line testing minimize the complication of the actuation circuits so their reliability is not minimized.

The licensee determined that performance of the applicable surveillance requirements at power does not impact the functionality of the ESW system or components. During quarterly performance of the emergency safety feature actuation system (ESFAS) test to satisfy TS 4.3.2.1, the safety injection (SI) actuation function of many of the automatic valves are tested. The licensee credits this test as satisfying the requirements of TS 4.7.4.b.1 for the affected valves. The remainder of the required valve tests are performed while shutdown or on an individual component level. Using this method to perform the required valve testing minimizes the potential for an unplanned transient at power. The licensee has determined that the criteria described above being used to determine if online testing is acceptable have been satisfied for the portions of TS Surveillance Requirements 4.7.4.b.2 and 4.7.4.c to be performed online. TS Surveillance Requirement 4.7.4.b.2, low suction pressure to the AFW pumps, will continue to be performed during shutdown.

The licensee has determined that the proposed change to the TS surveillance requirements does not have an adverse effect on the impact or the consequences of an accident and does not alter the design assumptions of system and components being used to mitigate the consequences of an accident. Because the surveillance requirements will continue to be performed on an 18-month frequency, no design basis accident will be affected by this change, and the design and operation of the system will not change. The safety functions or reliability of related structures, systems or components will not change, and the possibility of inducing plant transients will not be increased.

Surveillance testing of the AFW system is required every 18 months by the current TSs. The requested change to allow online testing of the system valves and pump start features of the ESW system does not change the required surveillance frequency or effect plant safety or



reliability. The staff, therefore, finds the requested change to TS Surveillance Requirements 4.7.4.b and 4.7.4.c acceptable.

#### 4.0 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.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes surveillance requirements. The NRC 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 the amendment involves no significant hazards consideration, and there has been no public comment on such finding (62 FR 66143). Accordingly, the 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 the amendment.

#### 6.0 CONCLUSION

The Commission 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 the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: B. Westreich

Date: February 24, 1998