

Mr. D. E. Young, Vice President  
 Carolina Power & Light Company  
 H. B. Robinson Steam Electric Plant,  
 Unit No. 2  
 3581 West Entrance Road  
 Hartsville, South Carolina 29550

January 21, 2000

SUBJECT: H. B. ROBINSON STEAM ELECTRIC PLANT UNIT 2 - ISSUANCE OF AMENDMENT - TECHNICAL SPECIFICATION (TS) CHANGE TO REVISE COMPONENT COOLING WATER (CCW) ACTUATION FROM ENGINEERED SAFETY FEATURE ACTUATION SIGNAL (ESFAS) TO LOSS-OF-POWER DIESEL GENERATOR (LOP DG) START UNDER VOLTAGE SIGNAL (TAC NO. MA6779)

Dear Mr. Young:

The Commission has issued the enclosed Amendment No. 186 to Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBR). This amendment consists of changes to the TS in response to your application dated September 28, 1999.

This amendment revises TS Surveillance Requirement 3.7.6.2, "Component Cooling Water (CCW) System," to change the CCW pump automatic start actuation signal basis from ESFAS to LOP DG. This change was required to reflect the original plant design, which was not properly incorporated during conversion of the TS to Improved TS.

A copy of the related Safety Evaluation is enclosed. Notice of Issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

Original signed by:

Ram Subbaratnam, Project Manager, Section 2  
 Project Directorate II  
 Division of Licensing Project Management  
 Office of Nuclear Reactor Regulation

Docket No. 50-261

Enclosures:

1. Amendment No. 186 to License No. DPR-23

2. Safety Evaluation

cc w/encls: See next page

\*See previous concurrence

\*\* SE date

FILENAME - G:\PDII-2\Robinson\MA6779.amd

<del>PM:PDII-S2</del>	LA:PDII-S2	EEIB:NRR**	OGC*	SC:PD II-S2
RSubbaratnam	EDunnington <i>ED</i>	NKTrehan	APH	RCorreia <i>RC</i>
1/18/00	1/18/00	1/3/00	1/14/00	1/20/00
Yes/No	<input checked="" type="radio"/> Yes/No	Yes/No	Yes/No	<input checked="" type="radio"/> Yes/No

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

January 21, 2000

Mr. D. E. Young, Vice President  
Carolina Power & Light Company  
H. B. Robinson Steam Electric Plant,  
Unit No. 2  
3581 West Entrance Road  
Hartsville, South Carolina 29550

**SUBJECT: H. B. ROBINSON STEAM ELECTRIC PLANT UNIT 2 - ISSUANCE OF AMENDMENT - TECHNICAL SPECIFICATION (TS) CHANGE TO REVISE COMPONENT COOLING WATER (CCW) ACTUATION FROM ENGINEERED SAFETY FEATURE ACTUATION SIGNAL (ESFAS) TO LOSS-OF-POWER DIESEL GENERATOR (LOP DG) START UNDER VOLTAGE SIGNAL (TAC NO. MA6779)**


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Ram Subbaratnam, Project Manager, Section 2,  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

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1. Amendment No. 186 to License No. DPR-23
2. Safety Evaluation

cc w/encls: See next page

AMENDMENT NO. 186 TO FACILITY OPERATING LICENSE NO. DPR-23 - H. B. Robinson,  
UNIT 2

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cc: H. B. Robinson 2 Service List



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

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-261

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 186  
License No. DPR-23

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment filed by Carolina Power & Light Company (the licensee), dated September 28, 1999, 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. DPR-23 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 186, are hereby incorporated in the license. Carolina Power & Light Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Richard P. Correia, Chief, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: January 21, 2000

ATTACHMENT TO LICENSE AMENDMENT NO. 186

FACILITY OPERATING LICENSE NO. DPR-23

DOCKET NO. 50-261

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

3.7-17  
B 3.7-39

Insert Pages

3.7-17  
B 3.7-39

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.7.6.1 .....-NOTE-..... Isolation of CCW flow to individual components does not render the CCW System inoperable. ..... Verify each required CCW manual, power operated, and automatic valve in the flow path servicing safety related equipment, that is not locked, sealed, or otherwise secured in position, is in the correct position.</p>	<p>31 days</p>
<p>SR 3.7.6.2 Verify each required CCW pump starts automatically on an actual or simulated LOP DG Start undervoltage signal.</p>	<p>18 months</p>

BASES

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ACTIONS

B.1 and B.2 (continued)

allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

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SURVEILLANCE  
REQUIREMENTS

SR 3.7.6.1

This SR is modified by a Note indicating that the isolation of the CCW flow to individual components may render those components inoperable but does not affect the OPERABILITY of the CCW System.

Verifying the correct alignment for manual, power operated, and automatic valves in the required CCW flow path provides assurance that the proper flow paths exist for CCW operation. This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since these valves are verified to be in the correct position prior to locking, sealing, or securing. This SR also does not apply to valves that cannot be inadvertently misaligned, such as check valves. This Surveillance does not require any testing or valve manipulation; rather, it involves verification that those valves capable of being mispositioned are in the correct position.

The 31 day Frequency is based on engineering judgment, is consistent with the procedural controls governing valve operation, and ensures correct valve positions.

SR 3.7.6.2

This SR verifies proper automatic operation of the required CCW pumps on an actual or simulated LOP DG Start undervoltage signal. The CCW System is a normally operating system that cannot be fully actuated as part of routine testing during normal operation. The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a unit outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed at

(continued)

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

BY THE OFFICE OF NUCLEAR REACTOR REGULATION

CCW ACTUATION SIGNAL FROM ESFAS TO LOP DG START UNDERVOLTAGE SIGNAL

H. B. ROBINSON, UNIT 2

DOCKET NO. 50-261

## 1.0 INTRODUCTION

Technical Specification (TS) 3.7.6, "Component Cooling Water (CCW) System," Surveillance Requirement (SR) 3.7.6.2, states, "Verify each required CCW pump starts automatically on an actual or simulated Engineered Safety Features Actuation System (ESFAS) actuation signal." A review of the logic diagrams for the automatic start circuits for the required CCW pumps found that the actuation signal for the CCW pumps is from the loss of power (LOP) diesel generator (DG) start undervoltage signal. LOP DG instrumentation is specified in Limiting Condition for Operation (LCO) 3.3.5, "LOP DG Start Instrumentation," and not in LCO 3.3.2, "Engineered Safety Features Actuation System (ESFAS) Instrumentation." Therefore, the actuation signal for the required CCW pumps is not correctly stated in SR 3.7.6.2. By letter dated September 28, 1999, Carolina Power & Light Company (the licensee) proposed a change to TS SR 3.7.6.2 to revise the actuation signal for the CCW pumps from ESFAS to LOP DG start undervoltage. Also, the licensee revised the associated Bases to reflect this change.

## 2.0 BACKGROUND

The CCW system consists of three pumps. The required (i.e., "B" and "C") CCW pumps are each powered by a separate safety-related bus. The "A" CCW pump is powered by the non-safety-related dedicated shutdown bus. SR 3.7.6.2 verifies proper automatic operation of the required pumps on an actual or simulated signal.

## 3.0 EVALUATION

The proposed change to SR 3.7.6.2 reflects the original plant design, which was not properly reflected in the conversion of the TS to the Improved TS. Automatic actuation of the required CCW pumps is not required from the ESFAS. The CCW pumps powered from the safety buses automatically start on low pump discharge head pressure. The CCW pumps that are already operating upon initiation of a Safety Injection (SI) signal will continue to operate as long as normal offsite power is available. Upon a loss of offsite power (LOOP), the required CCW pumps are automatically loaded onto the safety buses as long as an SI signal is not present. If a Containment Spray (CS) signal occurs while an SI signal is present, and the EDGs power the safety buses, the CCW pumps are tripped from the safety buses. The required CCW pumps are not loaded onto the safety buses as part of the SI loading sequence; however, they can be loaded manually. In a large break LOCA, the CCW pumps are not required during the injection phase because the Emergency Core Cooling System (ECCS) pump seals and the CS pump seals are cooled with water from the Refueling Water Storage Tank. A CCW pump is manually

started during the switch over of the ECCS from the injection phase to the recirculation phase. In a small break LOCA, a CCW pump is started manually in accordance with emergency operating procedures.

The staff has evaluated the licensee submittal and determined that the proposed change is consistent with the plant design and is acceptable.

#### 4.0 STATE CONSULTATION

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

#### 5.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of a facility component located within the restricted area, as defined in 10 CFR Part 20 and changes a surveillance requirement. 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 (64 FR 59798). 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 this amendment.

#### 6.0 CONCLUSION

Based on the above, the staff concludes that the proposed change to TS SR 3.7.6.2 to correct the stated source of the actuation signal is acceptable because it reflects the actual plant design that was not properly reflected in the conversion of the TS to the Improved TS.

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: N. K. Trehan, EEIB, NRR

Date: January 21, 2000

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H. B. Robinson Steam Electric  
Plant, Unit No. 2

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