

April 20, 1999

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 RE: RESIDUAL HEAT REMOVAL (RHR) ISOLATION VALVE
INTERLOCK (TAC NO. MA3846)

Dear Mr. Young:

The Commission has issued the enclosed Amendment No. 182 to Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant, Unit No. 2. This amendment consists of changes to the Technical Specifications (TS) in response to your application dated October 14, 1998.

This amendment modifies the acceptance criterion for Surveillance Requirement 3.4.14.2 from the setpoint value of 465 psig to the analytical limit for the RHR system of 474 psig reactor coolant system pressure. The requested acceptance criterion is consistent with the Bases to the specification and the design basis of the RHR system.

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. 182 to License No. DPR-23
2. Safety Evaluation

cc w/encls: See next page

*See previous concurrence

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PM:PDH/S2	LA:PDII/S2	OGC: <i>My</i>	SRXB/DSSA*	SC:PDII/S2	D:PDII
RSubbaratnam	EDunnington <i>ED</i>	<i>R. Desai</i> <i>R. Bachmann</i>	K. Desai	SPeterson <i>SP</i>	HBerkow <i>HB</i>
<i>4/19/99</i>	<i>4/9/99</i>	<i>4/24/99</i>	3/19/99	4/19/99	4/20/99
Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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H. B. Robinson Steam Electric Plant,
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Sincerely,

A handwritten signature in black ink, appearing to read "Ram Subbaratnam".

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

Docket No. 50-261

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2. Safety Evaluation

cc w/encls: See next page

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

cc:

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AMENDMENT NO. 182 FACILITY OPERATING LICENSE N 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. 182
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), October 14, 1998, 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:

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P PDR

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 182, 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 the date of its issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Sheri R. Peterson, 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: April 20, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 182

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

3.4-40
B 3.4-88

Insert Pages

3.4-40
B 3.4-88

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.14.1 (continued)	Within 24 hours following valve actuation due to automatic or manual action or flow through the valve
SR 3.4.14.2 · Verify RHR System interlock prevents the valves from being opened with a simulated or actual RCS pressure signal > 474 psig.	18 months

BASES

SURVEILLANCE
REQUIREMENTSSR 3.4.14.1 (continued)

The leakage limit is to be met at the RCS pressure associated with MODES 1 and 2. This permits leakage testing at high differential pressures with stable conditions not possible in the MODES with lower pressures.

Entry into MODES 3 and 4 is allowed to establish the necessary differential pressures and stable conditions to allow for performance of this Surveillance. The Note that allows this provision is complementary to the Frequency of prior to entry into MODE 2 whenever the unit has been in MODE 5 for 7 days or more, if leakage testing has not been performed in the previous 9 months. In addition, this Surveillance is not required to be performed on the RHR System when the RHR System is aligned to the RCS in the shutdown cooling mode of operation. PIVs contained in the RHR shutdown cooling flow path must be leakage rate tested after RHR is secured and stable unit conditions and the necessary differential pressures are established.

SR 3.4.14.2

Verifying that the RHR interlock is OPERABLE ensures that RCS pressure will not pressurize the RHR system beyond 125% of its design pressure of 600 psig. The interlock setpoint prevents the valves from being opened and is set so the actual RCS pressure must be ≤ 474 psig to open the valves. This setpoint ensures the RHR design pressure will not be exceeded and the RHR relief valves will not lift. The 18 month Frequency is based on the need to perform the Surveillance under conditions that apply during a plant outage. The 18 month Frequency is also acceptable based on consideration of the design reliability (and confirming operating experience) of the equipment.

REFERENCES

1. 10 CFR 50.2.
2. 10 CFR 50.55a(c).
3. UFSAR, Section 3.1.
4. WASH-1400 (NUREG-75/014), Appendix V, October 1975.

(continued)



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATING TO TECHNICAL SPECIFICATION CHANGE

REGARDING RESIDUAL HEAT REMOVAL ISOLATION VALVE INTERLOCK

CAROLINA POWER & LIGHT COMPANY FOR H. B. ROBINSON UNIT NO. 2

DOCKET NO. 50 - 261

1.0 INTRODUCTION

In a letter dated October 14, 1998, Carolina Power & Light Company (CP&L, the licensee) proposed a Technical Specification (TS) Surveillance Requirement (SR) 3.4.14.2 change that would change the surveillance test pressure value from 465 psig to 474 psig. The pressure isolation valves (PIVs) interlock setpoint value will remain the same as the current value of 445 psig. The Bases for SR 3.4.14.2 is also modified to indicate that the analytical limit of Reactor Coolant System (RCS) pressure for overpressurization of the Residual Heat Removal (RHR) system is 474 psig.

2.0 EVALUATION

The RCS PIVs have two normally closed valves in series within the reactor coolant pressure boundary (RCPB), which separate the high pressure RCS from an attached low pressure system. The purpose of PIVs is to prevent overpressure failure of the low pressure portions of systems connecting to the RCS beyond their design pressure of 600 psig. The RHR system interlock setpoint prevents the PIVs from being remotely opened from the control room by the operators and is set so that the actual RCS pressure must be less than the analytical limit for the RHR system pressure to open the PIVs. This setpoint ensures the RHR design pressure will not be exceeded and the RHR PIVs will not open while the RCS pressure is higher than the analytical limit as a result of inadvertent operator action. The RHR system interlock only prevents manual operator action to open the RHR PIVs and does not have an actuation function to close the PIVs if the PIVs are open with RCS pressure above the setpoint value.

The analytical limit of 474 psig for overpressurization of the RHR system is calculated based upon the design pressure of the RHR system of 600 psig less head losses of 126 psi due to the shutoff head of the RHR pumps and the dynamic head associated with one reactor coolant pump operating in the loop. The interlock setpoint value of 445 psig is calculated based upon the analytical limit of 474 psig for overpressurization of the RHR system. The interlock setpoint value has accounted for instrumentation uncertainties and statistical allowances. The interlock setpoint value will remain the same as the current value of 445 psig, which is based upon the setpoint calculation using the CP&L setpoint methodology.

The licensee is proposing to change the surveillance test pressure from 465 psig to 474 psig. The proposed TS SR 3.4.14.2 will relax the current surveillance test pressure value by 9 psi

since the RHR system can withstand RCS pressure at the pressure transmitter of up to 474 psig and does not overpressurize the RHR system as discussed above. Furthermore, the plant operating procedures are conservatively written, which does not allow operation with the RHR PIVs open above an indicated RCS pressure of 375 psig. The PIVs interlock setpoint value will prevent overpressure failure of the low pressure portions of the RHR systems connected to the RCS. Therefore, the combination of the plant's operating procedures and interlock setpoint will assure overpressure protection of the RHR systems. The staff has reviewed the licensee's submittal and finds the proposed changes acceptable.

3.0 STATE CONSULTATION

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

4.0 ENVIRONMENTAL CONSIDERATION

This amendment 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 (63 FR 59587). 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.

5.0 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: Kulin Desai, SRXB/DSSA

Date: April 20, 1999