

August 9, 2001

Mr. J. W. Moyer, 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 CHANGE ON ULTIMATE HEAT
SINK (TAC NO. MA9303)

Dear Mr. Moyer:

The Commission has issued the enclosed Amendment No. 191 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 June 5, 2000, as supplemented by your letters of August 4, 2000, and July 6, 2001.

This amendment revises TS 3.7.8 to establish Required Actions and Completion Times in the event that the service water system exceeds the maximum allowed TS temperature of 97°F. The proposed actions are: (1) verify that the required cooling capacity is maintained within 1 hour and once every 12 hours thereafter; and (2) verify that the service water temperature does not exceed 99°F once per hour. If these required actions and completion times are not met, the existing plant shutdown action requirements and completion times would apply.

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

Sincerely,

/RA/

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

cc w/encls: See next page

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ACCESSION NO. ML012220038

cc w/encls: See next page

*Staff Safety Evaluation Dt: 7/19/2001

FILENAME - C:\Program Files\Adobe\Acrobat 4.0\PDF Output\RMA9303.amd.wpd

PM:PDII-S2	LA:PDII-S2	SPLB:DSSA	RTSB:DRIP	OGC	SC:PDII-S2(A)	
RSubbaratnam	EDunnington	GHubbard*	WDB	APH nlo	RHernan	
07/30/2001	07/30/2001	7/19/2001	8/1/2001	8/8/2001	08/09/2001	
Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	

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AMENDMENT NO. 191 TO FACILITY OPERATING LICENSE NO. DPR-23 - H. B. Robinson,
UNIT 2

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cc: H. B. Robinson 2 Service List

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-261

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

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 191
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 (CP&L, the licensee), dated June 5, 2000, as supplemented by letters of August 4, 2000, and July 6, 2001, 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. 191, 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 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Ronald W. Hernan, Acting 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: August 9, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 191

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

3.7.21
3.7.21a
B 3.7-50
B 3.7-50a
B 3.7-51

Insert Pages

3.7.21
3.7.21a
B 3.7-50
B 3.7-50a
B 3.7-51

SAFETY EVALUATION
BY THE OFFICE OF NUCLEAR REACTOR REGULATION
ULTIMATE HEAT SINK TECHNICAL SPECIFICATION
H. B. ROBINSON, UNIT 2
DOCKET NO. 50-261

1.0 INTRODUCTION

By letter dated June 5, 2000, Carolina Power and Light Company (CP&L, the licensee) requested a change to Technical Specification (TS) 3.7.8, "Ultimate Heat Sink (UHS)," for H. B. Robinson, Unit 2. The licensee supplemented its request by letters dated August 4, 2000, and July 6, 2001, following meetings that were held at NRC Headquarters to provide additional clarification on July 13, 2000, and June 25, 2001, respectively. The proposed change would establish Required Actions and Completion Times for periods when the service water (SW) inlet temperature exceeds the maximum allowed value of 97°F. The proposed actions are: (1) verify that the required cooling capacity is maintained within 1 hour and once every 12 hours thereafter; and (2) verify that the SW temperature does not exceed 99°F once per hour. If these required actions and completion times are not met, the existing plant shutdown action requirements and completion times would apply.

The August 4, 2000, and July 6, 2001, supplements contained clarifying information only, and did not change the initial no significant hazards consideration determination or expand the scope of the initial application.

2.0 BACKGROUND

The UHS for H. B. Robinson, Unit 2, is Lake Robinson, which was originally developed for use by H. B. Robinson, Unit 1 (a fossil plant). The lake is the UHS for both of the Robinson units during normal power operation, and also serves as the UHS for H. B. Robinson, Unit 2, during postulated accident conditions. The UHS is described in Section 9.2.4 of the Robinson Updated Final Safety Analysis Report (UFSAR).

During the summer months, the temperature of Lake Robinson tends to increase due to solar heating, and there have been several occasions when the lake temperature has approached 95°F, and one occasion when the lake temperature approached 96°F. In order to better cope with these recent trends in elevated UHS temperature, CP&L requested an increase in the TS temperature limit for SW from 95°F to 97°F. The licensee's request was approved by the NRC as Amendment 187 on April 18, 2000. The 97°F temperature limit was actually established based on a SW temperature of 99°F, and adjusted downward to provide some margin to allow for heat exchanger tube plugging and other degraded conditions that are anticipated during normal plant operation. Therefore, if equipment conditions are favorable, continued plant operation with SW temperature as high as 99°F can be allowed. This forms the basis for the licensee's request.

3.0 EVALUATION

Licensees have historically experienced elevated UHS temperature conditions during prolonged periods of hot, dry weather and, on occasion, TS temperature limits have been exceeded. Typically, these situations are infrequent, of short duration, and do not pose a challenge to accident mitigating systems and components. Unfortunately, when these conditions arise, prompt action is required by licensees to address TS requirements, action that typically includes a request for the NRC to exercise enforcement discretion.

The Nuclear Energy Institute's TS Task Force (TSTF) proposed a change to the Standard Technical Specification (STS) requirements in order to deal more efficiently with short-lived elevated UHS temperatures that exceed accident analysis assumptions. The proposed STS change was submitted as TSTF-330, "Allowed Outage Time--Ultimate Heat Sink," and Revision 3 of the TSTF was approved by the NRC for use by licensees on October 31, 2000. TSTF-330 allows licensees to adopt an averaging approach for satisfying the UHS temperature limit as long as accident analysis assumptions remain valid and equipment that is relied upon for accident mitigation, anticipated operational occurrences, or for safe shutdown, will not be adversely affected, placed in alarm condition, or limited in any way when the UHS temperature limit is exceeded. While the NRC encourages licensees to adopt this temperature averaging approach, it is not suitable for all situations. CP&L did not adopt this approach because Lake Robinson does not experience much diurnal variation in temperature during the summer months when the lake water temperature is elevated, and therefore temperature averaging would not provide much relief. However, the licensee has proposed an alternative approach that is consistent with the provisions of TSTF-330 in that plant operation during periods of elevated SW temperature would remain within the bounds of the accident analyses, and the temperature limitations of equipment that is important to safety would not be exceeded.

The proposed Required Action A.1 of TS 3.7.8 requires the licensee to confirm within 1 hour and every 12 hours thereafter while SW temperature exceeds 97°F that the required cooling capacity is maintained. Depending on the specific equipment conditions that exist, especially with respect to heat exchanger performance, the licensee's evaluation indicates that continued plant operation with SW temperature as high as 99°F can be tolerated. The proposed action requirement will assure that heat transfer assumptions remain valid when SW temperature is elevated. The 1-hour and 12-hour completion times are appropriate to assure prompt and continuous assessment of the situation. Therefore, proposed Required Action A.1 is considered to be acceptable.

The proposed Required Action A.2 of TS 3.7.8 requires the licensee to confirm once per hour that SW temperature is less than or equal to 99°F. The licensee has determined that equipment that is relied upon for accident mitigation, anticipated operational occurrences, or for safe shutdown, will not be adversely affected, placed in alarm condition, or limited in any way as long as SW temperature does not exceed 99°F. The 1-hour periodicity for monitoring SW temperature while it exceeds 97°F is consistent with the provisions of TSTF-330, and is frequent enough to assure that equipment limitations are not exceeded. Therefore, proposed Required Action A.2 is considered to be 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. 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 (65 FR 48745). 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 our review and the considerations discussed in Section 3.0 of this evaluation, we find the proposed changes to TS 3.7.8 for H. B. Robinson, Unit 2, to be acceptable.

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: James Tatum, NRR/DSSA/SPLB

Date: August 9, 2001

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H. B. Robinson Steam Electric Plant, Unit 2

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