

# CATEGORY 1

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SUBJECT: Forwards amend 180 to OL DPR-23 & TSs & rev 5 & 6 to TSs  
Bases for HBRSEP,Unit 2.Remove & insert pages IAW  
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**Carolina Power & Light Company**

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Hartsville SC 29550

RNP File No: 13510

Serial: RNP-RA/99-0001

**APR 19 1999**

United States Nuclear Regulatory Commission

Attn: Document Control Desk

Washington, DC 20555

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

DOCKET NO. 50-261/LICENSE NO. DPR-23

**TRANSMITTAL OF COPIES OF AMENDMENT 180 TO  
THE OPERATING LICENSE AND TECHNICAL SPECIFICATIONS  
AND REVISIONS 5 AND 6 TO THE TECHNICAL SPECIFICATIONS BASES**

Sir or Madam:

This letter transmits copies of Amendment 180 to the Operating License and Technical Specifications (TSs) and Revision 5 and 6 to the Technical Specifications Bases for the H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2. One (1) copy is provided for Mr. B. R. Bonser at NRC Region II, one (1) copy is provided for the NRC Resident Inspector, and three (3) copies are provided for Mr. R. Subbaratnam at NRC Headquarters. The recipients are requested to remove and insert pages in accordance with the instructions provided. The license amendment was implemented on December 11, 1998. Revision 5 to the Bases represents changes associated with the approved license amendment. Revision 6 to the Bases was implemented on April 5, 1999, and includes changes approved subsequent to that amendment.

Attachment I provides a description and technical justification for each Bases change in Revision 6.

Attachment II provides copies of Amendment No. 180 and collated Revisions 5 and 6 to the TSs Bases and includes instructions for removing and inserting pages.

If you have any questions concerning this matter, please contact me or Mr. H. K. Chernoff.

Sincerely,

9904260225 990419  
PDR ADOCK 05000261  
P PDR

  
R. L. Warden

Manager, Regulatory Affairs

//  
A001

United States Nuclear Regulatory Commission

Serial: RNP-RA/99-0001

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Attachments

- I. Summary of Changes to Technical Specifications Bases in Revision 6
- II. Instructions for Removal and Insertion of Pages to the Operating License, Technical Specifications, and Bases

c: Mr. L. A. Reyes, NRC, Region II (w/o attachment II)  
Mr. B. R. Bonser, USNRC, Region II  
Mr. R. Subbaratnam, NRC, NRR (3 copies attachment II)  
NRC Resident Inspector, HBRSEP

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
SUMMARY OF CHANGES TO TECHNICAL SPECIFICATIONS BASES IN REVISION 6

Description of Each Change and Technical Justification

**Bases to Limiting Condition for Operations (LCO) 3.2.3, "Axial Flux Difference (AFD)"**

The Bases to Surveillance Requirement (SR) 3.2.3.3 state that a note modifies this SR to allow the predicted end of cycle AFD from the cycle nuclear design to be used to determine the initial target flux difference after each refueling. The statement in the Bases is incorrect in that the beginning of cycle AFD from the cycle nuclear design is used to determine the initial target flux difference. Revision 6 changes "end of cycle" to "beginning of cycle." This correction ensures that the Bases are consistent with the actual note in SR 3.2.3.3.

**Bases to Table 3.3.2-1, Function 5.a, "Feedwater Isolation"**

The Bases to Technical Specifications Table 3.3.2-1, Function 5.a states that Feedwater (FW) Isolation Functions must be OPERABLE in MODES 1, 2, 3 and 4 except when all FW Isolation Valves, FW Regulator Valves, and associated bypass valves are closed or isolated by a closed manual valve when the Main FW system is in operation and the turbine generator may be in operation. Technical Specifications Table 3.3.2-1 shows Applicability for Function 5.a Automatic Actuation Logic and Actuation Relays as not including MODE 4 and references Safety Injection initiation for Function 5.b which includes MODE 4. The reference to MODE 4 does not include Function 5.a. Therefore, this clarification which inserts a parenthetical phrase that MODE 4 applies to the Safety Injection (SI) signal only was made in the Bases to ensure agreement with the Applicability statement in Table 3.3.2-1 of the Technical Specifications.

**Bases to LCO 3.3.7, "Control Room Emergency Filtration System (CREFS) Actuation Instrumentation," LCO 3.7.9, "Control Room Emergency Filtration System (CREFS)," LCO 3.7.10, "Control Room Emergency Air Temperature Control (CREATC)," LCO 3.8.2, "AC Sources - Shutdown," LCO 3.8.5, "DC Sources - Shutdown," LCO 3.8.8, "AC Instrument Bus Sources - Shutdown," and LCO 3.8.10, "Distribution Systems - Shutdown."**

These LCOs and supporting Bases are Applicable during movement of irradiated fuel. The applicability assures that Systems, Structures, and Components (SSCs) that are credited to mitigate the consequences of a fuel handling accident are OPERABLE during periods that handling of irradiated fuel takes place. The spent fuel shipping cask when properly sealed and operated in conformance with its certificate of compliance is analyzed for various credible cask accidents in accordance with 10 CFR 71.51 and 10 CFR 71.71, such that in the event of such accidents, there is no loss or dispersal of radioactive contents, no significant increase in external surface radiation levels, and no substantial reduction in the effectiveness of the cask. Therefore, since the applicable safety analyses associated with these LCOs do not include a spent fuel cask drop containing irradiated fuel, and since a drop of the spent fuel shipping cask when handling irradiated fuel in accordance with the cask certificate of compliance is analyzed without the requirement for operability of additional plant SSCs, movement of irradiated fuel within the spent

fuel shipping cask does not require OPERABILITY of these SSCs. Therefore the Bases to these LCOs have been revised to state that Applicability to movement of irradiated fuel excludes movement of irradiated fuel within a properly sealed spent fuel shipping cask.

#### **Bases to LCO 3.4.17, "Chemical and Volume Control System (CVCS)"**

The Background of the Bases to LCO 3.4.17 lists the flow path for reactor coolant pump shaft seal leakage flow in an order that implies that filtration occurs after the seal water heat exchanger. Therefore the order of filtration and cooling is reversed to indicate that filtering occurs first followed by the heat exchanger. This editorial change better describes the reactor coolant shaft seal water flow path.

#### **Bases to LCO 3.7.4, "Auxiliary Feedwater"**

This change applies to Conditions A, B, D, and E in Limiting Condition for Operations (LCO) 3.7.4, "Auxiliary Feedwater (AFW) System." This change clarifies the application of the Condition descriptions in the LCO 3.7.4 ACTIONS, consistent with the Bases descriptions of AFW flow paths.

The Bases to the LCO defines the AFW flow paths in the following statements.

- 1) Each motor driven AFW pump suction line and valves, discharge line and valves, providing flow paths to Steam Generators "B" and "C" (two paths total).
- 2) The "swing" AFW injection valve, powered from the automatic bus transfer switch, and injection line to Steam Generator "A" constitutes the third motor driven AFW flow path.
- 3) The steam supply lines and valves, pump suction line and valves, and injection lines and valves constitute the steam driven AFW flow path.

The Bases do not describe the cross-over isolation valves in this section of the Bases. However, it is reasonable that the cross over valves are associated the "swing" injection flow path to Steam Generator "A."

The bases state that "With any single AFW pump or one or two flow path(s) inoperable, redundant capability to inject flow into three steam generators utilizing at least two AFW flow paths exists, thus preserving capability to withstand a single failure." This statement is misleading since the unstated assumption in this statement is that the single failure could be applied anywhere in the remaining system and still allow the feeding of the steam generators. The design of the AFW system is such that, with any single AFW pump or one or two flow path(s) inoperable, redundant capability to inject flow into at least one steam generator exists. Therefore, the Bases to Required Action A.1 have been corrected to state that redundant capability exists to provide AFW flow to at least one steam generator.

LCO 3.7.4, Condition A states, "one AFW pump inoperable in MODE 1, 2, or 3 OR one or two AFW flow paths inoperable in MODE 1, 2, or 3." The AFW flow paths are described in the Background and the LCO sections of the Bases and include the pumps within the description of the flow paths. The flow paths (with the exception of the motor driven swing flow path to Steam Generator "A") include the pumps. When an AFW pump is found to be inoperable, its associated flow path is also intrinsically inoperable. The "swing" flow path is not made inoperable by the inoperability of a single motor driven AFW pump. Likewise, when a flow path is found inoperable in a manner that prevents flow through an AFW pump, the affected AFW pump is also intrinsically inoperable. Therefore, the ACTIONS to LCO 3.7.4 have been revised to clarify the relationship between the AFW pumps and flow paths.

**Bases to LCO 3.7.11, "Fuel Handling Air Cleanup System (FBACS)"**

By letter dated January 27, 1998, the NRC approved an unreviewed safety question regarding the required level of the spent fuel pool. The approved level for the spent fuel pool only provides a decontamination factor of 67. Therefore, the Bases to LCO 3.7.11 were revised to reflect the new decontamination factor of 67.

**Bases to LCO 3.9.6, "Refueling Cavity Water Level"**

Reference 3 cites WCAP-828 as the document with the title, "Radiological Consequences of a Fuel Handling Accident." The WCAP reference number is incorrect and was revised to WCAP-7828, which has the listed title.

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
INSTRUCTIONS FOR REMOVAL AND INSERTION OF PAGES TO THE OPERATING  
LICENSE, TECHNICAL SPECIFICATIONS, AND BASES

Replace the following pages of the Operating License, Technical Specifications, and Bases with the enclosed pages. The revised areas are indicated by margin lines.

Remove

LEP

Pages 1,2

Operating License

Page 3

Page 4d

Technical Specifications

3.9-2

3.9-3

Bases LEP

1

Bases

B 3.2-24

B 3.3-76

B 3.3-130

B 3.4-104

B 3.7-25

-

B 3.7-54

B 3.7-60

B 3.7-61

B 3.7-63

B 3.8-29

B 3.8-30

B 3.8-31

B 3.8-47

B 3.8-48

B 3.8-63

B 3.8-79

Insert

LEP

Pages 1,2

Operating License

Page 3

Page 4d

Technical Specifications

3.9-2

3.9-3

Bases LEP

i.1 through i.14

Bases

B 3.2-24

B 3.3-76

B 3.3-130

B 3.4-104

B 3.7-25

B 3.7-25a

B 3.7-54

B 3.7-60

B 3.7-61

B 3.7-63

B 3.8-29

B 3.8-30

B 3.8-31

B 3.8-47

B 3.8-48

B 3.8-63

B 3.8-79

**Remove**

Bases (continued)

B 3.9-5  
B 3.9-6  
B 3.9-7  
-  
B 3.9-23

**Insert**

Bases (continued)

B 3.9-5  
B 3.9-6  
B 3.9-7  
B 3.9-7a  
B 3.9-23



H. B. ROBINSON UNIT NO. 2 OPERATING LICENSE EFFECTIVE PAGES

Appendix A

<u>Page</u>	<u>Amendment No.</u>	<u>Date</u>
Title Page		
Table of Contents (all)	176	October 24, 1997
All Pages		
through 3.7-20	176	October 24, 1997
3.7-21	179	July 29, 1998
3.7-21a	179	July 29, 1998
3.7-22		
through 3.9-1	176	October 24, 1997
3.9-2, 3.9-3	180	November 12, 1998
3.9-4		
through 5.0-30	176	October 24, 1997
5.0-31	178	March 16, 1998
5.0-32 through 5.0-34	176	October 24, 1997

Appendix B

<u>Page</u>	<u>Amendment No.</u>	<u>Date</u>
1	176	October 24, 1997

3. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Section 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect, and is subject to the additional conditions specified below:

A. Maximum Power Level

The licensee is authorized to operate the facility at a steady state reactor core power level not in excess of 2300 megawatts thermal.

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 180 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- (1) For Surveillance Requirements (SRs) that are new in Amendment 176 to Final Operating License DPR-23, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 176. For SRs that existed prior to Amendment 176, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 176.

C. Reports

Carolina Power & Light Company shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

Carolina Power & Light Company shall keep facility operating records in accordance with the requirements of the Technical Specifications.

4. Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 180, are hereby incorporated into this license. Carolina Power & Light Company shall operate the facility in accordance with the additional conditions.

5. This license is effective as of the date of issuance and shall expire at midnight July 31, 2010.

Attachment  
Appendix A - Technical Specifications

Date of Issuance: JUL 31 1970