



**Carolina Power & Light Company**

Robinson Nuclear Plant  
3581 West Entrance Road  
Hartsville SC 29550

Serial: RNP-RA/99-0239

**NOV 29 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 RECENT  
REVISION TO THE TECHNICAL SPECIFICATIONS BASES

Ladies and Gentlemen:

This letter transmits copies of a revision to the Technical Specifications (TS) Bases, and associated Lists of Effective Pages (LEPs) for the H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2. The attached copies incorporate Revision 13 to the TS Bases which was approved in accordance with TS 5.5.14, "Technical Specifications (TS) Bases Control Program," and was implemented on November 22, 1999. A description of the change is described in Attachment I.

Attachment II provides collated revisions to the LEP and TS Bases, and includes instructions for removing and inserting the pages on the cover page.

One copy is provided for Mr. B. R. Bonser at NRC Region II, one copy is provided for the NRC Resident Inspector, and three copies are provided for Mr. R. Subbaratnam at NRC Nuclear Reactor Regulation. The recipients are requested to remove and insert pages in accordance with the instructions provided.

If you have any questions on this subject, please contact Mr. H. K. Chernoff.

Sincerely,

  
R. L. Warden  
Manager - Regulatory Affairs

ADD1

United States Nuclear Regulatory Commission

Serial: RNP-RA/99-0239

Page 2 of 2

ALG/alg

Attachments

- I. Summary of Changes to Technical Specifications Bases in Revision 13
  - II. Instructions for Removal and Insertion of Pages to the Lists of Effective Pages and Technical Specifications Bases
- c:
- L. A. Reyes, NRC, Region II (w/o attachment)
  - B. R. Bonser, NRC, Region II
  - R. Subbaratnam, NRC, NRR (3 copies attachment)  
NRC Resident Inspector, HBRSEP

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

SUMMARY OF CHANGES TO  
TECHNICAL SPECIFICATIONS BASES IN REVISION 13

Description of Each Change and Technical Justification

**Bases to Limiting Condition for Operation (LCO) 3.8.4, "DC Sources - Operating"**

The Background to the Bases stated for the Train A DC electrical power subsystem that battery size is based on 125% of required capacity and, after selection of an available commercial battery, results in a battery capacity in excess of 150% of required capacity. Similarly, the Background to the Bases stated for the Train B DC electrical power subsystem that battery size is based on 110% of required capacity and, after selection of an available commercial battery, results in a battery capacity in excess of 120% of required capacity. The "B" battery has been replaced, and the new battery provides 128% of the required capacity. Additionally, these statements in the Bases needed clarity with respect to when battery size selection resulted in the described battery capacity. Therefore the Background to the Bases were revised to reflect the new Train B battery size and to clarify battery sizing as stated below. For the A Train battery the revised statement is as follows.

"Battery size is based on 125% of required capacity and, after selection of an available commercial battery, resulted in an initial battery capacity in excess of 150% of required capacity."

For the B Train battery the revised statement is as follows.

"Battery size is based on 110% of required capacity and, after selection of an available commercial battery, resulted in an initial battery capacity in excess of 128% of required capacity."

Since the new Train B battery size has a larger capacity than the previous Train B battery, the battery replacement was found to be acceptable and did not pose an unreviewed safety question.

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

INSTRUCTIONS FOR REMOVAL AND  
INSERTION OF PAGES TO THE LISTS OF EFFECTIVE  
PAGES, OPERATING LICENSE, TECHNICAL SPECIFICATIONS, AND BASES

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

**Remove**

**Insert**

Technical Specifications Bases  
Effective Pages

Page i.1  
Page i.12

Page i.1  
Page i.12

Technical Specifications Bases

Page B 3.8-39

Page B 3.8-39

TECHNICAL SPECIFICATIONS BASES EFFECTIVE PAGES

| <u>Page</u> | <u>Rev.</u> |
|-------------|-------------|
| i           | 0           |
| i.1         | 13          |
| i.2         | 7 E1        |
| i.3         | 7 E1        |
| i.4         | 7 E1        |
| i.5         | 7 E1        |
| i.6         | 7 E1        |
| i.7         | 7 E1        |
| i.8         | 11          |
| i.9         | 10          |
| i.10        | 7 E1        |
| i.11        | 9           |
| i.12        | 13          |
| i.13        | 7 E1        |
| ii          | 0           |
| iii         | 0           |
| iv          | 0           |
| B 2.0-1     | 0           |
| B 2.0-2     | 0           |
| B 2.0-3     | 3           |
| B 2.0-4     | 3           |
| B 2.0-5     | 3           |
| B 2.0-6     | 0           |
| B 2.0-7     | 0           |
| B 2.0-8     | 0           |
| B 2.0-9     | 0           |
| B 3.0-1     | 0           |
| B 3.0-2     | 0           |
| B 3.0-3     | 0           |
| B 3.0-4     | 0           |
| B 3.0-5     | 0           |
| B 3.0-6     | 0           |
| B 3.0-7     | 0           |
| B 3.0-8     | 0           |
| B 3.0-9     | 0           |
| B 3.0-10    | 0           |
| B 3.0-11    | 0           |
| B 3.0-12    | 0           |
| B 3.0-13    | 0           |
| B 3.0-14    | 0           |
| B 3.0-15    | 0           |
| B 3.1-1     | 0           |
| B 3.1-2     | 0           |
| B 3.1-3     | 0           |
| B 3.1-4     | 0           |
| B 3.1-5     | 0           |
| B 3.1-6     | 0           |
| B 3.1-7     | 0           |
| B 3.1-8     | 0           |
| B 3.1-9     | 0           |

TECHNICAL SPECIFICATIONS BASES EFFECTIVE PAGES

| <u>Page</u> | <u>Rev.</u> |
|-------------|-------------|
| B 3.8-9     | 0           |
| B 3.8-10    | 0           |
| B 3.8-11    | 0           |
| B 3.8-12    | 0           |
| B 3.8-13    | 0           |
| B 3.8-14    | 0           |
| B 3.8-15    | 0           |
| B 3.8-16    | 0           |
| B 3.8-17    | 0           |
| B 3.8-18    | 0           |
| B 3.8-19    | 0           |
| B 3.8-20    | 0           |
| B 3.8-21    | 0           |
| B 3.8-22    | 0           |
| B 3.8-23    | 0           |
| B 3.8-24    | 0           |
| B 3.8-25    | 0           |
| B 3.8-26    | 0           |
| B 3.8-27    | 0           |
| B 3.8-28    | 0           |
| B 3.8-29    | 6           |
| B 3.8-30    | 6           |
| B 3.8-31    | 6           |
| B 3.8-32    | 0           |
| B 3.8-33    | 0           |
| B 3.8-34    | 0           |
| B 3.8-35    | 0           |
| B 3.8-36    | 0           |
| B 3.8-37    | 0           |
| B 3.8-38    | 0           |
| B 3.8-39    | 13          |
| B 3.8-40    | 0           |
| B 3.8-41    | 0           |
| B 3.8-42    | 0           |
| B 3.8-43    | 0           |
| B 3.8-44    | 0           |
| B 3.8-45    | 0           |
| B 3.8-46    | 0           |
| B 3.8-47    | 6           |
| B 3.8-48    | 6           |
| B 3.8-49    | 0           |
| B 3.8-50    | 0           |
| B 3.8-51    | 0           |
| B 3.8-52    | 0           |
| B 3.8-53    | 0           |
| B 3.8-54    | 0           |
| B 3.8-55    | 0           |
| B 3.8-56    | 0           |
| B 3.8-57    | 0           |
| B 3.8-58    | 0           |
| B 3.8-59    | 0           |

BASES

---

BACKGROUND  
(continued)

The DC power distribution system is described in more detail in Bases for LCO 3.8.9, "Distribution System - Operating," and LCO 3.8.10, "Distribution Systems - Shutdown."

Each battery has adequate storage capacity to carry the required load continuously for at least 1 hour following a plant trip and a loss of all AC power (Ref. 2).

There is no sharing between redundant subsystems, such as batteries, battery chargers, or distribution panels.

The battery for Train A DC electrical power subsystem is sized to produce required capacity at 80% of nameplate rating, corresponding to warranted capacity at end of life cycles and the 100% design demand. Battery size is based on 125% of required capacity and, after selection of an available commercial battery, resulted in an initial battery capacity in excess of 150% of required capacity. The battery for Train B DC electrical power subsystem is sized to produce required capacity at 91% of nameplate rating, corresponding to warranted capacity at end of life cycles and the 100% design demand. Battery size is based on 110% of required capacity and, after selection of an available commercial battery, resulted in an initial battery capacity in excess of 128% of required capacity. The voltage limit is 2.13 V per cell, which corresponds to a total minimum voltage output of 128 V per battery.

Each Train A and Train B DC electrical power subsystem has ample power output capacity for the steady state operation of connected loads required during normal operation, while at the same time maintaining its battery bank fully charged.

Each battery charger also has sufficient capacity to restore the battery from a partial discharge condition to its fully charged state within 24 hours while supplying normal steady state loads discussed in the UFSAR, Chapter 8 (Ref. 2).

---

APPLICABLE  
SAFETY ANALYSES

The initial conditions of Design Basis Accident (DBA) and transient analyses in the UFSAR, Chapter 6 (Ref. 3), and in the UFSAR, Chapter 15 (Ref. 4), assume that Engineered Safety Feature (ESF) systems are OPERABLE. The DC electrical power system provides normal and emergency DC

(continued)