

October 17, 1990

Docket No. 10-261

Mr. Lynn W. Eury
Executive Vice President
Power Supply
Carolina Power & Light Company
Post Office Box 1551
Raleigh, North Carolina 27602

Dear Mr. Eury:

SUBJECT: EXEMPTION FROM REQUIREMENTS OF SECTION III.G.2 OF APPENDIX R OF
10 CFR PART 50 - H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2
(TAC NO. 77310)

In response to your request by letter dated July 30, 1990, and supplemented August 16, 1990, the Commission has issued the enclosed Exemption for H. B. Robinson Steam Electric Plant, Unit No. 2 (HBR2). The exemption from the requirements of Section III.G.2 of Appendix R of 10 CFR 50 allows additional intervening cable combustibles to be installed in the Component Cooling Water (CCW) pump room. The previous configuration of the cable trays in the CCW pump room was approved in an exemption granted October 25, 1984.

A copy of the enclosed exemption has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Original Signed By:

Ronnie H. Lo, Senior Project Manager
Project Directorate II-1
Division of Reactor Projects - I/II

cc: w/enclosures
See next page

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Mr. L. W. Eury
Carolina Power & Light Company

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

cc:

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Mr. R. Morgan
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To achieve and maintain safe shutdown using one train of component cooling water (CCW) cables and equipment, Section III.G.2.b of Appendix R requires that:

Separation of cables and equipment and associated non-safety circuits of redundant trains by a horizontal distance of more than 20 feet with no intervening combustible or fire hazards. In addition, fire detectors and an automatic fire suppression system shall be installed in the fire area....

By letter dated July 30, 1990, as supplemented August 16, 1990, CP&L requested approval of an exemption from the above requirements of Section III.G.2 for the CCW pump room. In specific, the requested exemption related to the "no intervening combustible" provision of Section III.G.2.b.

III.

By letter dated July 30, 1990, as supplemented August 16, 1990, the licensee requested approval of an exemption from the technical requirements of Section III.G.2 of Appendix R to 10 CFR Part 50 for the CCW pump room. The requested exemption would allow for an increase in the quantity of intervening combustibles between redundant trains to a combined quantity that will not exceed a 1-hour fire loading. Previously, an exemption to Appendix R Section III.G.2 for the CCW pump room was granted on October 25, 1984. In part, that exemption allowed a combined quantity of intervening combustibles or fire hazards between redundant shutdown trains for a fire loading of 16 minutes.

The licensee plans to install new cable trays in the CCW pump room. Cable installed in these trays will be qualified to IEEE-383, Vertical Flame Test. The requested exemption would allow an increase in the quantity of

intervening combustibles between redundant trains as well as an increase in the overall combustible loading in the area. Through existing design and administrative controls, CP&L has committed that the in-situ combustible fire severity in the area will not exceed a 1-hour fire loading.

The licensee has provided information on the level of fire protection already provided. These provisions include:

1. An early warning redundant cross-zoned fire detection system is provided;
2. A partial fire suppression sprinkler system is installed above all cable trays (including the presently proposed cable trays) and pumps;
3. No other combustible materials are in the CCW pump room except for one quart of lubricating oil with a high flashpoint (350°F) for each of the three pumps;
4. A portable fire extinguisher is in the CCW pump room, and additional fire extinguishers and manual fire hose stations are in adjacent areas;
5. Power cables to the redundant CCW pumps are installed in conduits with a 1-hour fire barrier wrap. All other cables are coated with flame retardant material or are IEEE-383, Vertical Flame Test, qualified. All cable trays (including the proposed cable trays) are qualified to IEEE 383.

Based on our review of the above information, the staff concludes that the licensee's existing fire protection configuration provides an equivalent level of safety to that achieved by compliance with Appendix R to 10 CFR Part 50.

Therefore, the Commission has determined that the an exemption from Section III.G.2.b of Appendix R to 10 CFR Part 50 in the CCW pump room should be granted.

IV.

Pursuant to 10 CFR 50.12(a)(2), the Commission will not consider granting an exemption unless special circumstances are present. Item (ii) of the subject regulation includes special circumstances where application of the subject regulation would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule.

The underlying purpose of Section III.G is to provide adequate protection of redundant components of safety-related equipment by limiting damage in the event of a fire at one safety-related component location so that the performance of the other safety-related component is not affected. The licensee has established that the substantial fire protection measures described in the licensee's July 30, 1990 submittal ensure that the configuration will not present an undue risk to public health and safety pursuant to 10 CFR 50.12(a)(1).

As described in the evaluation section of the exemption, the staff has concluded that the existing fire protection systems provide equivalent fire protection to that which would be provided by meeting the literal requirements of Section III.G.2.b of Appendix R. Therefore, the staff concludes that "special circumstances" exist for the licensee's requested exemption in that imposition of the literal requirements of the regulation in these particular circumstances is not necessary to achieve the underlying purpose of Appendix R to 10 CFR Part 50.

V.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a)(2)(ii), special circumstances are present in that the current level of fire protection satisfies the underlying sections of Appendix R to 10 CFR Part 50. Further, the staff has concluded that the requested exemption is authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. Therefore, the Commission hereby grants an exemption from the requirements of Section III.G.2.b of Appendix R to 10 CFR Part 50 for the CCW pump room as described in Section II above.

Pursuant to 10 CFR 51.32, the Commission has determined that the issuance of this exemption will have no significant impact on the environment (55 FR 41619).

For further details with respect to this action, see the licensee's request for exemption dated July 30, 1990, as supplemented August 16, 1990, which are available for public inspection at the Commission's Public Document Room, 2120 L Street, NW, Washington, DC, and at the Hartsville Memorial Library, Home and Fifth Avenues, Hartsville, South Carolina 29535.

This exemption is effective upon issuance.

Dated at Rockville, Maryland this 17th day of October 1990.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed By:

Steven A. Varga, Director
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

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