

JUL 30 1987

Docket No. 50-261

Mr. E. E. Utley, Senior Executive Vice President  
Power Supply and Engineering & Construction  
Carolina Power & Light Company  
Post Office Box 1551  
Raleigh, North Carolina 27602

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Dear Mr. Utley:

SUBJECT: EXEMPTIONS FROM CERTAIN REQUIREMENTS OF 10 CFR PART 50, APPENDIX R, SECTION III.J - H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (TAC NO. 55440)

By letter dated June 29, 1984, as supplemented January 16, 1985, you requested exemptions from the technical requirements of 10 CFR Part 50, Appendix R, Section III.J. This request involves access routes to the charging pump room, component cooling water heat exchanger room, battery room, safety injection pump room, and the service water intake structure. You also requested exemptions from the containment and residual heat removal pit areas where manual, cold shutdown operations are required and where possible repairs may be needed.

Based on the staff evaluation contained in the exemption, the Commission has granted your exemption request pursuant to 10 CFR Part 50.12. The exemption is being forwarded to the Office of the Federal Register for publication.

Sincerely,

Elinor G. Adensam, Director  
Project Directorate II-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosure:  
Exemption

cc: See next page

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*BCB for*



Mr. E. E. Utley  
Carolina Power & Light Company

H. B. Robinson 2

CC:

Thomas A. Baxter, Esquire  
Shaw, Pittman, Potts and Trowbridge  
2300 N Street, N.W.  
Washington, DC 20037

Mr. Dayne H. Brown, Chief  
Radiation Protection Branch  
Division of Facility Services  
Department of Human Resources  
701 Barbour Drive  
Raleigh, North Carolina 27603-2008

Mr. McCuen Morrell, Chairman  
Darlington County Board of Supervisors  
County Courthouse  
Darlington, South Carolina 29535

Mr. Robert P. Gruber  
Executive Director  
Public Staff - NCUC  
P.O. Box 29520  
Raleigh, North Carolina 27626-0520

Mr. H. A. Cole  
Special Deputy Attorney General  
State of North Carolina  
P.O. Box 629  
Raleigh, North Carolina 27602

Mr. D. E. Hollar  
Associate General Counsel  
Carolina Power and Light Company  
P.O. Box 1551  
Raleigh, North Carolina 27602

U.S. Nuclear Regulatory Commission  
Resident Inspector's Office  
H. B. Robinson Steam Electric Plant  
Route 5, Box 413  
Hartsville, South Carolina 29550

Regional Administrator, Region II  
U.S. Nuclear Regulatory Commission  
Suite 2900  
101 Marietta Street  
Atlanta, Georgia 30303

Mr. R. Morgan  
General Manager  
H. B. Robinson Steam Electric Plant  
Post Office Box 790  
Hartsville, South Carolina 29550



Section III.J, of Appendix R to 10 CFR Part 50, Emergency Lighting, requires 8-hour battery powered lighting units in areas needed for operation of safe shutdown equipment and along access and egress routes thereto.

III.

By letter dated June 29, 1984, as supplemented January 16, 1985, CP&L requested approval of exemption from the technical requirements of Section III.J of Appendix R to 10 CFR Part 50 concerning the need for 8-hour battery powered lighting units in areas needed for operation of safe shutdown equipment and along access routes. The exemption request relates to the access routes to the charging pump room, component cooling water heat exchanger room, battery room, safety injection pump room and the service water intake structure. The licensee also requested an exemption for the containment and residual heat removal (RHR) pit areas where manual, cold shutdown operations are required and/or where possible repairs may be needed. The staff's evaluation of the licensee's request is provided below.

The reason for requiring 8-hour battery powered emergency lighting is to ensure that at least minimal lighting is available for the performance of manual actions necessary for safe shutdown after a fire. Usually manual actions are required for valve alignment, repairs and pump control operations. The licensee has stated that a fire on the ground level at the south end of the auxiliary building hallway would prevent access to dedicated shutdown equipment in the charging pump room and the component cooling water heat exchanger room. Similarly, a fire in the emergency switchgear room would

prevent access to the DC distribution panels in the battery room. A fire at the north end of the auxiliary building hallway on the ground level would prevent access to the SI-864 A and B valves in the safety injection pump room. Also, manual operation of service water valve V6-12D, located at the intake structure, would require emergency lighting. The licensee has stated that due to the numerous alternate access pathways, a large number of fixed emergency lighting units would have to be installed, and the routing of associated cabling to provide the necessary electrical power for redundant lighting is not practicable.

The licensee justified the proposed exemptions for the limited circumstances where a fire may prevent access through the south end of the auxiliary building to the above stated areas. The licensee's justification is based on the availability of an assured alternate path where 8-hour battery powered lighting units are provided. In the areas where lighting units would not be installed, dedicated portable, hand-held lighting would be provided for the operator to perform the necessary functions. The licensee justifies this approach on the basis that the availability of dedicated portable hand-held lighting provides a level of emergency lighting equivalent to that required by Section III.J for the above areas.

The technical requirements of Section III.J of Appendix R are not expressly met at the intake structure and along the access route to the safety injection pump room because fixed, individual 8-hour battery powered lighting units are not provided for safe shutdown.

At the north end of the auxiliary building, the staff was concerned about the availability of a reliable means of illumination and whether the path of travel would be unobstructed and easily traversed. The licensee has identified alternate access paths to the required equipment or alternate equipment that would provide the same functions. For example, the alternate access route to the charging pump room is from the second level of the auxiliary building adjacent to the non-regenerative and seal water heat exchangers, to the component cooling water heat exchanger room from the turbine building via the exterior door in the south wall of the room, and to the battery room via the chemical batch addition room. These alternate routes are provided with fixed, 8-hour battery powered units. Furthermore, the alternate access route to the safety injection pump room follows the exterior of the auxiliary building along the east and north sides of the safety injection pump room exterior door. Portable hand-held lighting will be provided for operator access to the safety injection pump room. Permanent emergency lighting is provided inside the safety injection pump room to operate the required equipment. Portable lights will be provided in the control room for performing the required functions at the service water intake structure. These portable lights will provide adequate illumination for the operators to access the intake structure and operate valve V6-12D.

Since the only manual actions required inside the containment and RHR pit are for the operation of valves for cold shutdown, sufficient time is available for the licensee to take appropriate action to re-energize the normal containment lighting units prior to containment entry.

Based on the above evaluation of alternate access routes and provision for portable, hand-held lighting, the staff concludes that adequate lighting will prevail to access areas and perform necessary safe shutdown functions. Therefore, the licensee's request for exemptions from the requirements of Section III.J of Appendix R for certain paths to the charging pump room, component cooling water heat exchanger room, DC distribution panels in the battery room and safety injection pump room is acceptable and should be granted. Furthermore, the staff concludes that the installation of 8-hour battery powered emergency lighting units inside the containment would not significantly improve the level of fire protection for this fire area. Therefore, their omission is an acceptable exemption from Section III.J of Appendix R, and application of the regulation in this particular circumstance is not necessary to achieve the underlying purpose of the rule.

#### IV.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a), that (1) these exemptions as described in Section III are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security and (2) special circumstances are present for the exemptions in that application of the regulation in these particular circumstances is not necessary to achieve the underlying purposes of Appendix R to 10 CFR Part 50. Therefore, the Commission hereby grants the following exemptions from the requirements of Section III.J of Appendix R to 10 CFR Part 50:

1. Access and egress routes to the:
  - a. charging pump room;
  - b. component cooling water heat exchanger room;
  - c. battery room;
  - d. safety injection pump room; and
  - e. service water intake structure.
2. Containment and RHR pit areas where manual, cold shutdown operations are required and/or where possible repairs may be needed.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will have no significant impact on the environment.

For further details with respect to this action, see the request for exemption dated June 29, 1984, as supplemented January 16, 1985, which are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., and at the Hartsville Memorial Library Home and Fifth Avenues, Hartsville, South Carolina 29535.

This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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

Dated at Bethesda, Maryland,  
 this 30 day of July, 1987

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