



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

October 25, 1984

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NLU-84-681

Docket No. 50-261

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

Dear Mr. Utley:

SUBJECT: H. B. ROBINSON STEAM ELECTRIC PLANT UNIT 2 (HBR-2) FIRE
PROTECTION APPENDIX R TO 10 CFR PART 50, ITEMS III.G.2.

The Commission has issued the enclosed Exemption to certain requirements of Appendix R to 10 CFR Part 50 in response to your letter dated March 16, 1982, as supplemented by letters dated April 27, 1982 and April 25, 1984. The exemption pertains to fire protection for the component cooling water pump room.

Specifically, you are exempt from Section III.G.2 of Appendix R to 10 CFR Part 50 for the component cooling water pump room to the extent that it requires complete area-wide automatic fire suppression.

The exemption is conditioned on your implementing fire protection improvements in this area as proposed. These improvements must be completed in accordance with the provisions of 10 CFR 50.48(c).

The basis for the Exemption is contained in the enclosure.

A copy of the Exemption is being forwarded to the Office of the Federal Register for publication.

Sincerely,

Steven A. Varga
for Steven A. Varga, Branch Chief
Operating Reactors Branch #1
Division of Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

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

H. B. Robinson Steam Electric
Plant 2

cc: G. F. Trowbridge, Esquire
Shaw, Pittman, Potts and Trowbridge
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Regional Radiation Representative
EPA Region IV
345 Courtland Street, N.E.
Atlanta, GA 30308

Mr. McCuen Morrell, Chairman
Darlington County Board of Supervisors
County Courthouse
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U.S. Nuclear Regulatory Commission
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H. B. Robinson Steam Electric Plant
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James P. O'Reilly
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Mr. R. Morgan
General Manager
H. B. Robinson Steam Electric Plant
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of
CAROLINA POWER AND LIGHT
COMPANY

(H. B. Robinson Unit No. 2)

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Docket No. 50-261

EXEMPTION

I.

The Carolina Power and Light Company (the licensee) is the holder of Facility Operating License No. DPR-23 which authorizes operation of the H. B. Robinson Plant, Unit No. 2. This license provides, among other things, that it is subject to all rules, regulations and Orders of the Commission now or hereafter in effect.

The facility is a pressurized water reactor at the licensee's site located in Darlington County, South Carolina.

II.

On November 19, 1980, the Commission published a revised Section 10 CFR 50.48 and a new Appendix R to 10 CFR 50 regarding fire protection features of nuclear power plants (45 FR 76602). The revised Section 50.48 and Appendix R became effective on February 17, 1981. Section 50.48(c) established the schedules for satisfying the provisions of Appendix R. Section III of Appendix R contains fifteen subsections, lettered A through O, each of which specifies requirements for a particular aspect of the fire protection features at a nuclear power plant. One of these fifteen subsections III.G is the subject of this exemption request. III.G specifies detailed requirements for

fire protection of the equipment used for safe shutdown by means of separation and barriers (III.G.2).

III.

By letter dated March 16, 1982, as supplemented by letter dated April 27, 1982, the licensee requested an exemption in the component cooling water (CCW) pump room from Section III.G.2 of Appendix R. Based on the staff's evaluation, it was recommended that the exemption be denied at this time.

By letter dated April 25, 1984, the licensee provided additional information and proposed modifications to add a partial automatic sprinkler system to protect the CCW pumps and associated cooling. This does not meet the technical requirements of Appendix R, because complete area-wide automatic fire suppression coverage is not provided. The acceptability of this alternative measure is addressed below.

IV.

The CCW pump room is located in the Auxiliary Building on elevation 246'-0". The area is separated from other plant areas by 3-hour fire rated barriers. Fire protection features in the area consist of early warning smoke detectors, manual hose stations and portable hose stations.

The component cooling water pumps are located on a north-south orientation. Of the end pumps, pump A is redundant to pump C. Pumps A and C are 24 ft from centerline to centerline with approximately 20 ft (19' 11") between the closest points of each pump. Only one of the three (3) pumps and one (1) component cooling heat exchanger are required for safe shutdown.

By letter dated April 25, 1984, the licensee proposed to provide a one-hour barrier around the power supply cables to both pumps A and C, to enhance the protection of the component cooling water pump room and preclude ignition

of the power cables to both pumps A and C. In addition, a partial fire suppression system will be installed in the area of the component cooling water pumps and the aisle in front of the pumps.

The partial automatic sprinkler system will be installed to protect the CCW pumps and associated cabling. The combustible loading in the remaining areas of the CCW pump room is low and fire hazards do not exist. If a fire occurred in the non-sprinklered section, the early warning smoke detectors would alert the fire brigade. The partial sprinkler system would prevent a fire from damaging redundant CCW components until the fire brigade could manually extinguish the fire.

It is the staff's opinion that the configuration of the area, combined with the response of the fire brigade, would prevent a fire from growing to a size which would overwhelm the partial sprinkler system. The addition of more sprinkler coverage would not significantly enhance safety. The existing protection with the proposed modifications will provide reasonable assurance that one safe shutdown division will be free of fire damage and will achieve an acceptable level of fire protection equivalent to that provided by Section III.G.2. Therefore, the licensee's request for exemption for the CCW pump room should be granted.

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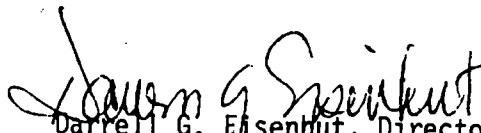
V.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, the exemption requested by licensee's letter as referenced and discussed in III. and IV. above is authorized by law, will not endanger life or property or the common defense and security, is otherwise in the public interest, and is hereby granted.

Pursuant to 10 CFR 51.32, the Commission has determined that the issuance of the exemption will have no significant impact on the environment, August 28, 1984 (49 FR 34111).

This Exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Darrell G. Eisenhut, Director
Division of Licensing

Dated at Bethesda, Maryland
this 25th day of October 1984