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 VARGA,S,A. Operating Reactors Branch 1

SUBJECT: Forwards revised Pages 7,8 & 31 from 830607 ltr clarifying
 location of proposed App R mods at 231-ft elevation of
 reactor coolant pump bays B & C. Mods will be located at
 231-ft elevation.

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Carolina Power & Light Company

SERIAL: LAP-83-261

June 29, 1983

Director of Nuclear Reactor Regulation
Attention: Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing
United States Nuclear Regulatory Commission
Washington, DC 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
CLARIFYING INFORMATION - APPENDIX R MODIFICATIONS

Dear Mr. Varga:

On June 7, 1983, Carolina Power & Light Company (CP&L) provided information to you concerning pending exemption requests and proposed modifications for the component cooling water pump room and reactor coolant pump bay areas.

Our continuing review of the June 7, 1983 letter has determined clarification is needed regarding the location of proposed modifications at the 231-foot elevation of reactor coolant pump bays B and C. Attached pages 7, 8, and 31 supersede the existing pages and clarify that proposed modifications (installation of diking) will be located at the 231-foot elevation of these bays.

If you have any questions concerning the attached, please contact me.

Yours very truly,

S. R. Zimmerman
Manager
Licensing & Permits

MSG/cfr (7154MSG)
Attachments

cc: Mr. J. P. O'Reilly (NRC-RII)
Mr. G. Requa (NRC)
Mr. J. Stang (NRC)
Mr. Steve Weise (NRC-HBR)

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to the pressurizer cubicle above. This room is also open to Bay C but access to Bay C is largely blocked by ventilation ducting leaving approximately 50 ft² of open space. The principal equipment located within this room are thimble guide tubes entering the reactor sump and the pressurizer heater cables.

Bay A and Bay C are separated by the reactor vessel refueling channel. The plan view of containment shows the relation between the bays, the bays and the main containment annulus, and the location of suppression and detection equipment protecting each reactor coolant pump.

While each bay contains three distinct elevations, the effects of a reactor coolant pump oil spill would vary due to the progression of elevation changes within each bay. For example, a major oil spill from the reactor coolant pump in Bay A would be isolated to the pump area as access to the pump elevation is from higher elevations.

A major oil spill in either Bay B or C would flow down to an area at the 228-ft elevation as access is provided from the pump area at the 231-ft elevation to the 228-ft elevation in both bays.

In Bay B, the pump elevation is above both the clearance area for the steam generator leg and the thimble guide area under the pressurizer. Diking will be added at the 231-ft elevation to prevent oil and suppression water spillage from flowing into the room under the pressurizer. In Bay C, the pump elevation is

above an area at the 228-ft elevation which extends to the refueling channel. Diking will be added at the 231-ft elevation to prevent oil and suppression water from spilling down to this level.

The predominant combustible material within each bay is 200 gallons of lubricating oil within the reactor coolant pumps. Based on the calorific value of lubricating oil (20400 Btu/lb), the combustible loading for Bay A, B, and C are, respectively, 30000 Btu/ft², 14382 Btu/ft², and 34833 Btu/ft². When adjusted to an equivalent value of materials used to generate the standard time-temperature curve (or 8000 Btu/lb), the equivalent combustible levels and equivalent fire severities are 76500 Btu/ft² and 57 minutes for Bay A, 36675 Btu/ft² and 28 minutes for Bay B, and 88824 Btu/ft² and 67 minutes for Bay C.

To contain a spill of oil and suppression water within each bay, Carolina Power and Light Company proposes to upgrade the existing protection provided by the physical configuration of the reactor coolant pump bays by installing 6-in. high dikes at the 231-ft elevation of Bay B and Bay C to prevent an oil spill from flowing down to the 228-ft elevation. This modification will bring the physical configuration of the bays into compliance with the requirements for separation of the fire areas as contained within NFPA codes for water spray suppression systems.

- o Provide 6 in. high dikes at the 231 ft elevation in RCP Bay B and RCP Bay C to meet the separation of fire area requirements as it relates to containment of potential oil spills in NFPA-STD-15, "Standard for Water Spray Fixed Systems for Fire Protection";
- o Replace the existing closed-head sidewall sprinklers with special open water spray nozzles having the appropriate discharge patterns and rates to coat the entire surface of each reactor coolant pump with water per the requirements of NFPA-STD-15; and
- o Provide operating procedures for use of suppression system and containment spray in the unlikely event of a fire.