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 50-261 H.B. Robinson Plant, Unit 2, Carolina Power & Light Co. 05000400
 50-400 Shearon Harris Nuclear Power Plant, Unit 1, Carolina
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 CUTTER, A.B. Carolina Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION
 DENTON, H.R. Office of Nuclear Reactor Regulation, Director

SUBJECT: Submits proposed schedule for meeting requirements of
 10CFR50.62 re ATWS & provides brief description of tentative
 design.

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Carolina Power & Light Company

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NRC TAC #59135

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
Washington, DC 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (HBR2)
DOCKET NO. 50-261/LICENSE NO. DPR-23

SHEARON HARRIS NUCLEAR POWER PLANT (SHNPP)
UNIT NO. 1 - DOCKET NO. 50-400

ANTICIPATED TRANSIENTS WITHOUT SCRAM (ATWS)

Dear Mr. Denton:

On June 1, 1984, the Commission approved publication of 10CFR50.62, regarding the reduction of risk from Anticipated Transients Without Scram (ATWS) events for light-water cooled nuclear power plants. Section 50.62(d) requires each licensee to develop and submit to the Director of the Office of Nuclear Reactor Regulation, a proposed schedule for meeting the requirements of the rule. The purpose of this letter is to provide a proposed schedule for meeting the requirements of the ATWS rule and to provide a brief description of the tentative design being considered to meet the requirements of Section 50.62(c)(1) as it applies to Carolina Power & Light Company's (CP&L) H. B. Robinson and Shearon Harris facilities.

Section 50.62(c)(1) of the Code of Federal Regulations requires each pressurized water reactor (PWR) to have equipment from sensor output to final actuation device, that is diverse from the reactor trip system, to automatically initiate the auxiliary feedwater system and to initiate a turbine trip under conditions indicative of ATWS. In a letter from Mr. L. D. Butterfield to Mr. C. O. Thomas dated July 25, 1985 (OG-156), the Westinghouse Owners' Group (WOG) submitted Topical Report WCAP-10858, "AMSAC Generic Design Package," which describes three conceptual designs that meet this requirement at Westinghouse designed PWRs. Carolina Power & Light Company is a member of the WOG and participated in the development of the Topical Report.

Carolina Power & Light Company has tentatively decided to use the conceptual design presented in Section 5.0 of WCAP-10858, "Functional Requirements, ATWS Mitigating System Actuation Circuitry" (Logic 3: AMSAC Actuation on Main Feedwater Pump Trip or Main Feedwater Valve Closure) for both facilities. In summary, this logic would actuate a turbine trip and auxiliary feedwater flow upon sensing that the main feedwater pumps have tripped or main feedwater valves have closed. The logic would sense conditions indicative of an ATWS event when a loss of heat sink has occurred but will not actuate until after the reactor protection signals should have been generated.

Carolina Power & Light Company's final selection depends on the design being approved as described in WCAP-10858.

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The proposed schedule for implementation of the ATWS rule at each of CP&L's PWR facilities is based in part upon the completion of the Staff's review of the WOG's AMSAC generic design package. A period of approximately 18 months will be necessary following receipt of the Safety Evaluation Report (SER) to allow for detailed design of the system and procurement of materials. The 18-month period assumes that the Staff does not require plant-specific design reviews prior to implementation at each facility.

The system could then be installed at the H. B. Robinson facility during the first scheduled refueling outage for the unit after this 18-month period, with acceptance testing and training completed within three months following the outage. Note that this schedule may put the final implementation beyond the recommended implementation date provided in Section 50.62(d).

Completion of the AMSAC modification at the Shearon Harris facility prior to the scheduled issuance of a license authorizing operation above five percent power is not possible. Therefore, CP&L has established a tentative schedule for installation of SHNPP AMSAC during the first refueling outage with acceptance testing and training completed within three months after completion of the first refueling outage. Note that this schedule will put the final implementation beyond the recommended implementation date provided in Section 50.62(d).

Upon receipt of the staff's SER, CP&L will review the report. If any changes to CP&L's choice of methodology and/or implementation schedule(s) are necessary, CP&L will notify your staff and revise the commitments in this submittal. These schedules, supported by the above justification, are in conformance with the requirements of 10 CFR 50.62(d). We are willing to meet with you at your convenience to establish mutual agreement of a final schedule.

If you have any questions, please contact Mr. S. R. Zimmerman at (919) 836-6242.

Yours very truly,



A. B. Cutter - Vice President
Nuclear Engineering & Licensing

SDC/crs (2023SDCa)

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