



Carolina Power & Light Company
AUG 28 1985

SERIAL: NLS-85-189

Director of Nuclear Reactor Regulation
Attention: Mr. D. B. Vassallo, Chief
Operating Reactors Branch No. 2
Division of Licensing
United States Nuclear Regulatory Commission
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS 1 AND 2
DOCKET NOS. 50-325 & 50-324/LICENSE NOS. DPR-71 & DPR-62
REQUEST FOR LICENSE AMENDMENT
ROD BLOCK MONITOR OPERABILITY

Dear Mr. Vassallo:

SUMMARY

In accordance with the Code of Federal Regulations, Title 10, Parts 50.90 and 2.101, Carolina Power & Light Company (CP&L) hereby requests a revision to the Technical Specifications (TS) for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2. The proposed revision affects the rated thermal power range over which the Rod Block Monitor (RBM) channels must be operable.

DISCUSSION

The Rod Worth Minimizer (RWM) and Rod Sequence Control System (RSCS) are redundant systems which assure that out-of-sequence control rods will not be withdrawn or inserted during low-level power operation. Control rod withdrawal sequences are established (based on rod worth) to assure that in the event of a control rod drop accident, the fuel peak enthalpy does not exceed 280 cal/gm. At greater than 20 percent of rated thermal power, no rod has sufficient worth such that, if it were to drop, the peak enthalpy would exceed 280 cal/gm. Therefore, the RWM and RSCS need be operable only when the plant is operating at less than 20 percent of rated thermal power.

The RBM is designed to automatically prevent fuel damage in the event of erroneous rod withdrawal from locations of high power density during high power operation. Tripping one of the two channels provided will block erroneous rod withdrawal and prevent fuel damage. This system backs up the written sequence used by the operator for withdrawal of control rods.

Currently, TS 3.1.4.3 requires both RBM channels to be operable when thermal power is greater than the preset power level of the RWM and the RSCS (approximately 30 percent nominal rated thermal power). In addition, this specification requires that the RBM and the RWM and RSCS operationally overlap when approaching this power level to ensure meeting the requirements of the TS. However, based on the information discussed previously, the design intent and power levels over which the systems are required are very different; RWM and RSCS are designed for low power levels, and RBM is designed for high power levels. Therefore, no overlap is necessary.

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The RBM is designed to operate at high power levels. Currently, the RBM is bypassed when the Average Power Range Monitor (APRM) used to normalize the RBM reading is indicating less than 30 percent power. The proposed revision to the TS would require the RBM to be operable when thermal power is greater than or equal to 35 percent of rated thermal power. This setpoint was conservatively chosen to ensure that: 1) a clear, concise power level is designated by the TS for plant operations; 2) the RBM functions as designed; 3) the RBM is operable as required by the TS using existing plant setpoints; 4) the margin of safety is not reduced.

SIGNIFICANT HAZARDS ANALYSIS

The Commission has provided standards for determining whether a significant hazards consideration exists (10CFR50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: 1) involve a significant increase in the probability or consequences of an accident previously evaluated; 2) create the possibility of a new or different kind of accident from an accident previously evaluated; or 3) involve a significant reduction in a margin of safety. Carolina Power & Light Company has determined that the requested amendment per 10CFR50.92:

- 1) Does not involve a significant increase in the probability or consequences of an accident previously evaluated because this change merely clarifies the power level at which the RBM is required to be operable. The proposed TS changes the current setpoint to 35 percent of rated thermal power which is still well below the high power level at which the RBM is required to operate; therefore, neither the RBM design and function, nor the accident analyses that use the RBM have been changed.
- 2) Does not create the possibility of a new or different kind of accident than previously evaluated for the same reason as stated in 1) above.
- 3) Does not involve a significant reduction in the margin of safety. None of the actual plant operating setpoints will be changed as a result of the proposed TS. Only the power level at which the RBM is required to be operable, as specified by the TS, will be clarified; this change is consistent with the guidelines set forth in the GE, BWR-4 Standard Technical Specifications (STS).

Based on the above, CP&L has determined that the proposed change meets the criteria of 10CFR50.90(c) and, therefore, does not involve significant hazards considerations.

ADMINISTRATIVE INFORMATION

The proposed Brunswick-1 and Brunswick-2 TS pages are provided in Enclosures 1 and 2.

Carolina Power & Light Company has evaluated this request in accordance with the provisions of 10CFR170.12 and has determined that a license amendment application fee is required. A check for \$150 is enclosed in payment of this fee.

Should you have any questions concerning this submittal, please contact Mr. Sherwood R. Zimmerman at (919) 836-6242.

Yours very truly,

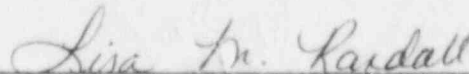


A. B. Cutter - Vice President
Nuclear Engineering & Licensing

ABC/GB/mf (1543NLU)

cc: Mr. W. H. Ruland (NRC-BNP)
Dr. J. Nelson Grace (NRC-RII)
Mr. M. Grotenhuis (NRC)
Mr. Dayne H. Brown

A. B. Cutter, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, contractors, and agents of Carolina Power & Light Company.



Notary (Seal)

My commission expires: 5/18/88

