

Carolina Power & Light Company

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MAR 30 1990

A. B. CUTTER

Vice President

Nuclear Services Department

SERIAL: NLS-90-074

United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 & 50-324/LICENSE NOS. DPR-71 & DPR-62
EVALUATION OF THE ELECTRICAL DISTRIBUTION SYSTEM
FOR COMPLIANCE WITH GDC-17

Gentlemen:

In response to the NRC Diagnostic Evaluation Team (DET) report for Brunswick Units 1 and 2, CP&L provided the staff an Integrated Action Plan (IAP), dated September 27, 1989, which included relevant Brunswick Plant and Corporate improvement actions. Item D1 of the IAP committed to a reevaluation of the Brunswick electrical distribution system for compliance with GDC-17 by March 31, 1990 and a subsequent briefing of appropriate NRR personnel on the results of the evaluation. In a letter dated November 1, 1989, the NRC identified four questions to be answered as part of the Company's evaluation.

Attachment 1 provides the bases for how the Brunswick Plant satisfied the requirements of GDC-17 at the time of licensing and responses to questions 1 through 4 of the NRC's November 1, 1989 letter.

The Brunswick Plant was designed, built, and licensed in accordance with IEEE Standard 308-1971 which specifies that the preferred power supply consist of a minimum of one circuit from the transmission network normally available with a provision for alternate access to the transmission network within eight hours of post-accident unit shutdown. The preferred power supply at the Brunswick Plant is provided by any one of four off-site transmission circuits via the Startup Auxiliary Transformer (SAT). In the event of a loss of the SAT, the diesel generators are available until backfeeding of the Unit Auxiliary Transformer (UAT) can be accomplished. Backfeeding of the UAT is the alternate access to the transmission network.

As a result of this evaluation, CP&L has concluded that the BNP electrical distribution system, as designed, meets the requirements of GDC-17, as they were interpreted when the plant was licensed.

In response to the Station Blackout Rule, 10 CFR 50.63, CP&L committed to perform modifications to enhance the cross-tie capability between the Unit 1 and the Unit 2 4160 VAC buses (CP&L letter NLS-89-256 dated October 10, 1989). These modifications will ensure that alternate AC power is available within

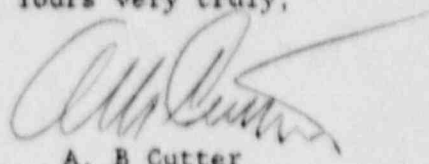
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one hour of the onset of a station blackout event. Once this modification is complete, CP&L will revise the Brunswick Plant procedures to enhance the ability to cope with either a station blackout event or a loss of the preferred power supply coincident with unavailability of the unit's diesel generator(s) (GDC-17) event.

Please refer any questions regarding this submittal to Mr. M. R. Oates at (919) 546-6063.

Yours very truly,



A. B. Cutter

ABC/MAT

Enclosure

cc: Mr. S. D. Ebnetter
Mr. N. B. Le
Mr. W. H. Ruland