



Carolina Power & Light Company

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April 21, 1992

R. B. STARKEY, JR.  
Vice President  
Nuclear Services Department

FILE: BSEP B09-13510

United States Nuclear Regulatory Commission, Region II  
Attention: Mr. S. D. Ebner  
101 Marietta Street, N.W.  
Suite 2900  
Atlanta, GA 30301

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-325 & 50-324/LICENSE NOS. DPR-71 & DPR-62  
REQUEST FOR TEMPORARY WAIVER OF COMPLIANCE

Gentlemen:

The purpose of this letter is to request a temporary Waiver of Compliance from Technical Specification 3.0.3 for the Brunswick Steam Electric Plant, Units 1 and 2.

The proposed waiver applies to the HOT SHUTDOWN within 6 hours and COLD SHUTDOWN within the following 30 hours requirement in Technical Specification 3.0.3. Carolina Power & Light Company requests that the 6-hour HOT SHUTDOWN requirement be extended from 1020 to 1500 for Unit 2 and to 1800 for Unit 1 on April 21, 1992 to allow for the orderly and sequential shutdown of both units. It is also requested that the 30 hour COLD SHUTDOWN requirement be extended from 1620 April 22, 1992 to 0800 April 23, 1992 for Unit 1 to allow for identification of drywell leakage sources. The condition requiring this action is the seismic inoperability of Diesel Generator Building wall 9d due to improperly installed and/or missing anchor bolts, as well as potential operability issues associated with other similarly constructed walls in the Diesel Generator Building.

The detailed basis for the proposed waiver is provided in Enclosure 1. The Plant Nuclear Safety Committee has reviewed and recommended approval of this request.

Please refer any questions regarding this submittal to Mr. S. D. Floyd at (919) 457-2404.

Yours very truly,

R. B. Starkey, Jr.

Enclosure

cc: NRC Document Control Desk  
Mr. N. B. Le  
Mr. R. L. Prevatte

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## ENCLOSURE 1

### BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2 NRC DOCKET NOS. 50-325 & 50-324 OPERATING LICENSE NOS. DPR-71 & DPR-62 REQUEST FOR TEMPORARY WAIVER OF COMPLIANCE

#### REQUIREMENTS FOR WHICH A WAIVER IS REQUESTED:

Concrete wall 9d in the Diesel Generator Building does not meet minimum seismic requirements due to improperly installed and/or missing anchor bolts and is, therefore, inoperable. Failure of this wall during a seismic event could damage emergency busses E5 and E6 and invokes the requirements of Technical Specification 3.0.3.

#### DISCUSSION OF CIRCUMSTANCES LEADING TO THE REQUEST:

On April 20, 1992, CP&L identified missing bolts in corner angles installed in wall 9d in the Diesel Generator Building. Ultrasonic examinations of installed bolts and subsequent actions to verify proper anchor bolt thread engagement in anchor sleeves were performed. Analysis of the inspection results was completed at 0210 on April 21, 1992 and concluded the wall was inoperable.

Technical Specification 3.8.2.1 was entered due to potential loss of emergency bus E6. The action statement requires the bus be restored to OPERABLE within 8-hours or be in HOT SHUTDOWN within the next 12-hours.

At 0420, it was determined that power cables for emergency bus E5 penetrate wall 9d. This required that Technical Specification 3.0.3 be entered which requires both units be placed in HOT SHUTDOWN within 6-hours.

At 0800, CP&L briefed NRR and NRC Region II regarding plans to repair Diesel Generator wall 9d and to inspect 4 other similarly constructed walls in the Diesel Generator Building. CP&L requested a waiver of compliance to extend the shutdown constraints of Technical Specification 3.0.3 for a time sufficient to repair the 9d wall. At 0900 NRC Region II verbally granted a waiver of compliance for 4 hours to Technical Specification 3.0.3 to complete the repair to Diesel Generator wall 9d. At approximately 1200, it became apparent that other walls in the Diesel Generator Building were likely to cause operability concerns and CP&L concluded that plant shutdown of both units was warranted. This decision was communicated to the NRC and plant shutdown commenced.

#### SAFETY SIGNIFICANCE AND POTENTIAL CONSEQUENCES:

Postulated failures of the walls in question during a seismic event would result in the loss of various combinations of safety-related equipment for both units. The short time interval of the requested waiver significantly minimizes the safety significance.

#### DISCUSSION OF JUSTIFICATION FOR DURATION:

##### A. HOT SHUTDOWN

The requested extension of time to be in HOT SHUTDOWN allows for a sequential and orderly shutdown of both units. This minimizes the complexity of evolutions for the control room staff by placing one unit at a time in a transient condition. Industry experience indicates that equipment problems are more likely to be encountered during transients than during steady-state operations. Therefore, the requested waiver is considered to be safer than the actions required by the Technical Specifications.

## B. COLD SHUTDOWN

The requested extension of time to be in COLD SHUTDOWN for Unit 1 allows for the investigation of sources of drywell in-leakage. Identification of these sources requires inspecting the drywell while the plant is at normal pressure. There is insufficient time to complete the inspections and comply with the time interval in the Technical Specifications. Identification of the sources of drywell in-leakage will allow for repairs prior to return to power operations. The requested waiver is considered appropriate as it affords the opportunity to improve plant safety in subsequent power operations.

The likelihood of the walls in question having to withstand a design basis earthquake is acceptably low. Based on EPRI seismic curves, the probability of a design basis earthquake for the geographic area at the Brunswick Plant is approximately  $6.6 \text{ E-}7$  per day.

### DISCUSSION OF COMPENSATORY ACTIONS:

In the unlikely event of a design basis earthquake, Emergency Operating Procedures provide appropriate actions for operators in response to multiple failures of safety-related equipment. Additionally, Abnormal Operating Procedures 36.1 and 36.2 provide guidance on compensatory actions for various loss of power events.

### SIGNIFICANT HAZARDS ANALYSIS:

The Commission has provided standards in 10 CFR 50.92(c) for determining whether a significant hazards consideration exists. Carolina Power & Light Company has reviewed this proposed temporary waiver of compliance and determined that its adoption would not involve a significant hazards consideration. The basis for this determination follows:

1. The proposed waiver does not result in an increase in the probability of a design basis earthquake. The consequences of responding to a design basis earthquake are not significantly increased due to the existence of Emergency Operating Procedures and Abnormal Operating Procedures providing guidance to operators in responding to loss of power events.
2. The proposed waiver does not create the possibility of a new or different kind of accident from any accident previously evaluated; the only impact of the request is to extend the time interval during which the plant is vulnerable to a seismic event.
3. The proposed waiver does not involve a significant reduction in a margin of safety because the required actions of the Technical Specifications are being implemented with a minor delay. The probability of having to withstand a design basis earthquake is  $6.6 \text{ E-}7$  per day based on the EPRI seismic curves for the geographic area of the Brunswick Plant. This probability is considered an insignificant reduction in safety margin of the plant. Additionally, the proposed action allows one unit to

be shut down at a time to ensure the highest level of operator attention to the plant being maneuvered thus providing a positive impact on overall plant safety.

#### ENVIRONMENTAL EVALUATION:

10 CFR 51.22(c)(9) provides criteria for and identification of licensing and regulatory actions eligible for categorical exclusion from performing an environmental assessment. Carolina Power & Light Company has reviewed this request and determined that it meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and that this request does not involve irreversible environmental consequences. Pursuant to 10 CFR 51.22(b), no environmental assessment needs to be prepared in connection with granting of the temporary waiver of compliance. The basis for this determination is as follows:

1. As demonstrated in the above significant hazards analysis, the proposed waiver does not involve a significant hazards consideration.
2. The proposed waiver does not result in a change to the plant or introduce any new equipment. Additionally, the intended function and operation of existing equipment is unaffected by the waiver. Therefore, it is evident that the proposed waiver does not involve irreversible environmental consequences beyond those already associated with normal operation.
3. The proposed waiver does not result in a significant increase in individual or cumulative occupational radiation exposure.