



Carolina Power & Light Company

P.O. Box 1551 • Raleigh, N.C. 27602

SERIAL: NLS-91-020  
10CFR50.90  
91TSB01

FEB 19 1991

G. E. VAUGHN  
Vice President  
Nuclear Services Department

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  
REQUEST FOR LICENSE AMENDMENT  
24 MONTH DIESEL GENERATOR SURVEILLANCE INTERVAL

Gentlemen:

In accordance with the Code of Federal Regulations, Title 10, Parts 50.90 and 2.101, Carolina Power & Light Company hereby requests a revision to the Technical Specifications for the Brunswick Steam Electric Plant (BSEP), Units 1 and 2.

Technical Specification 4.8.1.1.2.d requires certain surveillances of the emergency diesel generators be performed "At least once per 18 months ...". The proposed amendment revises the surveillance interval associated with Technical Specification 4.8.1.1.2.d from 18 months to 24 months.

Enclosure 1 provides a detailed description of the proposed changes and the basis for the changes.

Enclosure 2 details the basis for the Company's determination that the proposed changes do not involve a significant hazards consideration.

Enclosure 3 provides the proposed Technical Specification pages for Unit 1.

Enclosure 4 provides the proposed Technical Specification pages for Unit 2.

Currently, Surveillance Requirement 4.8.1.1.2.d inspections are planned to be performed during the Unit 2 surveillance testing outage scheduled to begin in June 1991. These surveillances represent a significant portion of the required work for this outage. Issuance of the requested amendment will allow performance of the surveillances during the upcoming Unit 2 Reload 9 outage currently scheduled to begin in September 1991, thereby saving approximately 1 week of critical path outage time during the Spring 1991 outage. Therefore, in order to realize this reduction in outage duration, CP&L requests

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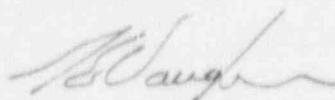
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that the NRC approve the requested license amendment by May 15, 1991. In order to allow time for procedure revision and orderly incorporation into copies of the Technical Specifications, CP&L requests that the proposed amendments, once approved by the NRC, be issued with an effective date to be no later than 60 days from the issuance of the amendment.

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

Yours very truly,



G. E. Vaughn

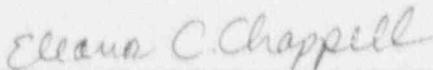
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Enclosures:

1. Basis for Change Request
2. 10 CFR 50.92 Evaluation
3. Technical Specification Pages - Unit 1
4. Technical Specification Pages - Unit 2

cc: Mr. Dayne H. Brown  
Mr. S. D. Ebnetter  
Mr. N. B. Le  
Mr. R. L. Prevatte

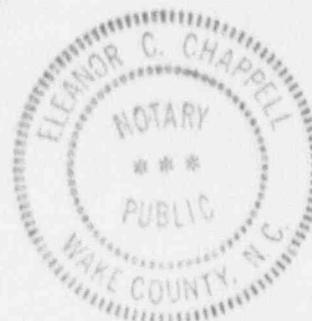
G. E. Vaughn, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, contractors, and agents of Carolina Power & Light Company.



Notary (S:al)

My commission expires:

My Commission Expires 2/28/96



## ENCLOSURE 1

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2  
NRC DOCKETS 50-325 & 50-324  
OPERATING LICENSES DPR-71 & DPR-62  
REQUEST FOR LICENSE AMENDMENT  
24 MONTH DIESEL GENERATOR SURVEILLANCE INTERVAL.

### BASIS FOR CHANGE REQUEST

#### Proposed Change

Technical Specification 4.8.1.1.2.d requires certain surveillances of the emergency diesel generators be performed "At least once per 18 months ...". The proposed amendment revises the surveillance interval associated with Technical Specification 4.8.1.1.2.d from 18 months to 24 months.

#### Basis

Brunswick-1 and Brunswick-2 were designed and are operated with a shared configuration of the four diesel generators. Diesel generators 1, 2, 3, and 4 supply emergency buses E1, E2, E3, and E4 respectively. Emergency buses E1 and E2 are associated with Brunswick-1 and E3 and E4 with Brunswick-2. In addition, selected redundant loads, such as two residual heat removal pumps, are normally supplied by the opposite unit's emergency buses. While performing the required inspection of a given diesel generator, the loads associated with that diesel generator are subject to their Limiting Condition for Operation requirements.

Technical Specification 4.8.1.1.2.d requires certain surveillances (4.8.1.1.2.d.1 through 4.8.1.1.2.d.7) of the diesel generators be performed at least once per 18 months during shutdown. This 18 month interval has caused difficulties in the scheduling of the diesel generator surveillances. The Brunswick cores are designed to provide extended operating cycles. In addition, Brunswick Plant outages have historically been of sufficient duration that either the diesel generator inspection would be required to be performed at the beginning of the outage to satisfy the 18 month surveillance interval and again at the end of the outage so that the 18 month interval would not expire prior to the next scheduled refueling outage or schedule a mid-cycle surveillance outage for diesel generator surveillances. These two factors make an 18 month diesel generator surveillance interval impractical.

The proposed amendment revises the interval at which the seven surveillances (4.8.1.1.2.d.1 through 4.8.1.1.2.d.7) associated with Technical Specification 4.8.1.1.2.d are performed from at least once per 18 months to at least once per 24 months. The justification for the extended surveillance interval is based on the high degree of

reliability demonstrated by the Brunswick diesel generators and discussions with the diesel manufacturer.

Over the past five years there have been no failures of the surveillances required by Technical Specifications 4.8.1.1.2.d.1, d.2, d.3, d.4, d.5, d.6, and d.7. This successful diesel generator testing history demonstrates the high reliability of the Brunswick diesel generators. As such, the effects of extending the surveillance interval to 24 months would be negligible and will actually improve overall diesel generator availability because the diesel generators will not be required to be removed from service as frequently as is currently necessary.

In addition, the diesel manufacturer has indicated that diesel generator reliability can be maintained by performing the tear-down inspection required in Technical Specification 4.8.1.1.2.d.1 once per 1000 hours of diesel operation. During a typical fuel cycle, a diesel generator will be run far less than 1000 hours (anywhere from approximately 80 to 150 hours).

Based on the above, the proposed extension of the 18 month diesel generator surveillance interval to 24 months will not significantly affect the diesel generators' ability to perform their intended safety function.

## ENCLOSURE 2

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2  
NRC DOCKETS 50-325 & 50-327  
OPERATING LICENSES DPR-71 & DPR-62  
REQUEST FOR LICENSE AMENDMENT  
24 MONTH DIESEL GENERATOR SURVEILLANCE INTERVAL

### BASIS FOR CHANGE REQUEST

#### 10 CFR 50.92 EVALUATION

The Commission has provided standards in 10 CFR 50.92(c) for determining whether a significant hazards consideration exists. 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 any accident previously evaluated, or (3) involve a significant reduction in a margin of safety. Carolina Power & Light Company has reviewed this proposed license amendment request and determined that its adoption would not involve a significant hazards consideration. The bases for this determination are as follows:

#### Proposed Change

Technical Specification 4.8.1.1.2.d requires certain surveillances of the emergency diesel generators be performed "At least once per 18 months". The proposed amendment revises the surveillance interval associated with Technical Specification 4.8.1.1.2.d from 18 months to 24 months.

#### Basis

The change does not involve a significant hazards consideration for the following reasons:

1. The proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Extending the diesel generator surveillance interval from 18 months to 24 months will not result in a significant increase in the probability of the diesel generators failing to perform their intended safety function. Historically, the diesel generators have demonstrated a high degree of reliability. Over the past five years there have been no failures of the surveillances required by Technical

Specifications 4.8.1.1.2.d.1, d.2, d.3, d.4, d.5, d.6, and d.7. This successful diesel generator testing history demonstrates the high reliability of the Brunswick diesel generators. As such, the effects of extending the surveillance interval to 24 months would be negligible and will actually improve overall diesel generator availability because the diesel generators will not be required to be removed from service as frequently as is currently necessary.

In addition, the diesel manufacturer has indicated that diesel generator reliability can be maintained by performing the tear-down inspection required in Technical Specification 4.8.1.1.2.d.1 once per 1000 hours of diesel operation. During a typical fuel cycle, a diesel generator will be run far less than 1000 hours (anywhere from approximately 80 to 150 hours). Therefore, the proposed amendment does not involve a significant increase in the probability of a previously evaluated accident.

The diesel generator surveillance requirements are intended to maintain diesel generator reliability at a level which assures that adequate electrical power is available under the most limiting accident conditions within the accident analysis for the Brunswick Plant. The most limiting accident condition includes the loss of all off-site power and the assumed single failure of one diesel generator. The proposed surveillance frequency will not adversely affect diesel generator availability. As stated above, past diesel generator performance has indicated a high degree of reliability over an extended period of time. Increasing the inspection interval to 24 months will not significantly affect this reliability. In addition, the vendor's commendation for tear-down inspection of the diesel generators at least once per 1000 hours of diesel operation is not affected by the revised surveillance interval since during a typical fuel cycle a diesel generator will be run significantly less than 1000 hours. As such, the proposed surveillance interval maintains an adequate level of assurance of diesel generator availability in the event of a design bases accident and, therefore, the proposed amendment does not involve a significant increase in the consequences of a previously evaluated accident.

2. The proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed amendment only extends the surveillance interval for the diesel generators. There is no change to the plant or its manner of operation. Also, there are no changes to the surveillance acceptance criteria. Therefore, the proposed change can not create the possibility of a new or different kind of accident from any previously evaluated.
3. The proposed amendment does not involve a significant reduction in the margin of safety. As demonstrated in Items 1 and 2 above, extending the diesel generator

surveillance interval from 18 months to 24 months will not significantly affect diesel generator reliability, availability, or the ability of the diesel generators to perform their intended safety function. Past diesel generator performance has indicated a high degree of reliability over an extended period of time, increasing the inspection interval to 24 months will not significantly affect this reliability. In addition, there are no changes to the surveillance acceptance criteria. Therefore, the proposed amendment does not involve a significant reduction in the margin of safety.