

December 31, 1983

Docket No. 50-324

Mr. E. E. Utley
Executive Vice President
Carolina Power & Light Company
Post Office Box 1551
Raleigh, North Carolina 27602

Dear Mr. Utley:

The Commission has issued the enclosed Amendment No. 90 to Facility Operating License No. DPR-62 for the Brunswick Steam Electric Plant, Unit 2. The amendment consists of changes to the Technical Specifications in response to your application of December 7, 1983, as supplemented by letter dated December 16, and December 20, 1983.

The amendment revises a surveillance test requirement for station electrical battery 2A-2.

A copy of the Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's next monthly Federal Register notice.

Sincerely,

Original signed by/

Marshall Grotenhuis, Project Manager
Operating Reactors Branch #2
Division of Licensing

Enclosures:

1. Amendment No. 90 to License No. DPR-62
2. Safety Evaluation

cc w/enclosures:

See next page

DISTRIBUTION

Docket File	SNorris	ELJordan	ACRS (10)
NRC PDR	SMacKay	JMTaylor	OPA, CMiles
Local PDR	MGrotenhuis	TBarnhart (4)	RDiggs
ORB#2 Reading	OELD	WJones	NSIC
HDenton	SECY	DBrinkman	Gray File
DEisenhut	LJHarmon	JKnox	Extra - 5

*Please see previous concurrence page.

DL:ORB#2	DL:ORB#2	DL:ORB#2	DL:ORB#2	OELD	DL:AD-OR
SNorris:ajs*	MGrotenhuis*	SMacKay*	DVassallo*	CBarth*	GLainas*
12/23/83	12/14/83	12/14/83	12/14/83	12/15/83	12/22/83

DM 12/31/83

Mr. E. E. Utley
Carolina Power & Light Company
Brunswick Steam Electric Plant, Units 1 and 2

cc:

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Board of Commissioners
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Mrs. Chrys Baggett
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 90
License No. DPR-62

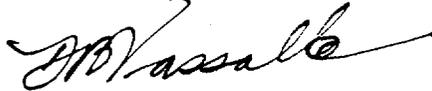
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Carolina Power & Light Company (the licensee) dated December 7, 1983, as supplemented by letter dated December 16, and December 20, 1983, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-62 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. 90, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 31, 1983

ATTACHMENT TO LICENSE AMENDMENT NO. 90

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Revise the Appendix A Technical Specifications as indicated on revised page 3/4 8-10. The changed area is indicated by a vertical line.

Remove Page

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Insert Page

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SURVEILLANCE REQUIREMENT (Continued)

- d. At least once per 18 months, during shutdown, by verifying that either:
1. The battery capacity is adequate to supply and maintain in OPERABLE status all of the actual emergency loads for 8 hours when the battery is subjected to a battery service test, or
 2. The battery capacity is adequate to supply a dummy load of the following profile while maintaining the battery terminal voltage \geq 105 volts.
 - a) During the initial 60 seconds of the test;
 - 1) Battery 2A-1 \geq 1056.42 amperes,
 - 2) Battery 2A-2 \geq 1074.90 amperes,
 - 3) Battery 2B-1 \geq 1089.06 amperes, and
 - 4) Battery 2B-2 \geq 1042.67 amperes.
 - b) During the remainder of the first 30 minutes of the test;
 - 1) Battery 2A-1 \geq 243.19 amperes,
 - 2) Battery 2A-2 \geq 159.10 amperes,
 - 3) Battery 2B-1 \geq 176.79 amperes, and
 - 4) Battery 2B-2 \geq 216.67 amperes.
 - c) During the remainder of the 8 hour test;
 - 1) Battery 2A-1 \geq 89.52 amperes,
 - 2) Battery 2A-2 \geq 50.34 amperes,
 - 3) Battery 2B-1 \geq 53.39 amperes, and
 - 4) Battery 2B-2 \geq 75.09 amperes.
 3. At the completion of either of the above tests, the battery charger shall be demonstrated capable of recharging its battery at a rate of at least 200 amperes while supplying normal D.C. loads. The battery shall be charged to at least 95% capacity in \leq 24 hours.
- e. At least once per 60 months during shutdown by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. This performance discharge test shall be performed subsequent to the satisfactory completion of the required battery service test and after normal equalizer charge.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 90 TO FACILITY LICENSE NO. DPR-62

CAROLINA POWER & LIGHT COMPANY

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

DOCKET NO. 50-324

1.0 INTRODUCTION

By letter dated December 7, 1983 as supplemented by letter dated December 16, and December 20, 1983 the Carolina Power & Light Company (the licensee) requested a change to the surveillance requirements for Brunswick 2 as set forth in the Technical Specifications of Facility Operating License No. DPR-62. The requested change would revise the Technical Specifications of the operating license regarding a surveillance test requirement for the station electrical power systems for Brunswick Unit 2. The present Technical Specifications in Section 4.8.2.3.2.d require a test of the station electrical batteries at least once per 18 months to demonstrate their ability to supply adequate electrical current for an actual service test or for a specified dummy load test while maintaining a battery terminal voltage of at least 105 volts. The licensee requested that the current required by the dummy load test be reduced on the basis of a reexamination of the current necessary to adequately supply power to safety-related equipment under emergency operating conditions. An actual service test is deemed to be impracticable and the safety considerations involved in doing that test have not been analyzed by the licensee or reviewed by the NRC.

2.0 EVALUATION

The present Technical Specification Section 4.8.2.3.2.d states:

"d. At least once per 18 months, during shutdown, by verifying that either:

1. The battery capacity is adequate to supply and maintain in OPERABLE status all of the actual emergency loads for 8 hours when the battery is subjected to a battery service test, or
2. The battery capacity is adequate to supply a dummy load of the following profile while maintaining the battery terminal voltage \geq 105 volts.

- a) During the initial 60 seconds at the test:
- 1) Battery 2A-1 — 1056.42 amperes,
 - 2) Battery 2A-2 — 1211.90 amperes,
 - 3) Battery 2B-1 — 1089.06 amperes, and
 - 4) Battery 2B-2 — 1042.67 amperes."

The licensee has requested that Item d.2.(a)(2) be changed from 1211.90 amperes to 1074.9 amperes.

The proposed change is based on a small refinement in the calculation of battery amperage requirements. The licensee reexamined the loads placed on the battery during emergency operating conditions and found several cases where loads could not be applied simultaneously to the battery but were conservatively added to the load test requirement to result in a total amperage requirement of 1211.90 amperes. By accounting for these loads that could not be applied simultaneously, the total amperage requirement could be reduced by 137 amperes resulting in a more realistic test requirement of 1074.9 amperes.

We reviewed the load study performed by the licensee and found that the battery testing amperage requirement may be reduced as proposed. We also found that based on the conservative method used to determine the total amperage requirement, adequate margin exists between the test amperage and the actual amperage that would be required during emergency conditions.

Furthermore, the proposed periodic testing requirement is clearly within all acceptable criteria specified in the NRC Standard Review Plan including the guidelines of IEE Standard 338-1977 as augmented by Regulatory Guide 1.118 and the test requirements of 10 CFR 50 Appendix A General Design Criteria 17 and 18.

3.0 SUMMARY

Based on our review we have concluded that the proposed change would not result in a significant reduction in the margin between the battery test amperage and the actual amperage that would be required during emergency conditions. Furthermore, the proposed test requirement meets current NRC acceptance criteria. The proposed change is therefore acceptable to the staff.

4.0 ENVIRONMENTAL CONSIDERATION

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

5.0 CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: J. Knox and S. MacKay

Dated: December 31, 1983