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

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December 28, 1983

Docket Nos. 50-325 and (50-324)

Posted
Amdt. 89
to DPR-62

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

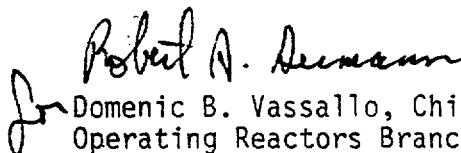
Dear Mr. Utley:

The Commission has issued the enclosed Amendment Nos. 64 and 89 to Facility Operating License Nos. DPR-71 and DPR-62 for the Brunswick Steam Electric Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications in response to your submittal of August 16, 1982.

The amendment adds Limiting Conditions for Operation and surveillance requirements for the Reactor Protection System (RPS) electrical power supplies. The change is intended to assure that the power produced by the RPS motor-generator sets is of a quality acceptable to the RPS.

A copy of the related Safety Evaluation is also enclosed.

Sincerely,


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

Enclosures:

1. Amendment No. 64 to DPR-71
2. Amendment No. 89 to DPR-62
3. Safety Evaluation

cc w/enclosures:
See next page

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Brunswick Steam Electric Plant, Units 1 and 2

cc:

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

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-325

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 64
License No. DPR-71

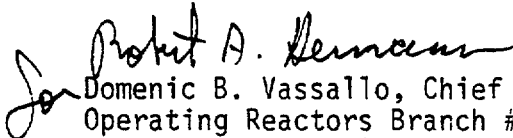
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Carolina Power & Light Company (the licensee) dated August 16, 1982 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules 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-71 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 64 , 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 28, 1983

ATTACHMENT TO LICENSE AMENDMENT NO. 64

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-235

Revise the Appendix A Technical Specifications as follows:

Remove

VIII
3/4 8-12

Insert

VIII
3/4 8-12

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ELECTRICAL POWER SYSTEMS

REACTOR PROTECTION SYSTEM ELECTRIC POWER MONITORING

LIMITING CONDITION FOR OPERATION

3.8.2.5 Two RPS electric power monitoring channels for each inservice RPS MG set or alternate source shall be OPERABLE.

APPLICABILITY: Whenever the respective power supply is supplying power to a RPS bus.

ACTION:

- a. With one RPS electric power monitoring channel for an inservice RPS MG set or alternate power supply inoperable, restore the inoperable channel to OPERABLE status within 72 hours or remove the associated RPS MG set or alternate power supply from service.
- b. With both RPS electric power monitoring channels for an inservice RPS MG set or alternate power supply inoperable, restore at least one to OPERABLE status within 30 minutes or remove the associated RPS MG set or alternate power supply from service.

SURVEILLANCE REQUIREMENTS

4.8.2.5 The above specified RPS power monitoring system instrumentation shall be determined OPERABLE:

- a. At least once per 6 months by performance of a CHANNEL FUNCTIONAL TEST, and
- b. At least once per 18 months by demonstrating the OPERABILITY of over-voltage, under-voltage, and under-frequency protective instrumentation by performance of a CHANNEL CALIBRATION including simulated automatic actuation of the protective relays, tripping logic, and output circuit breakers and verifying the following setpoints:

	<u>RPS MG SET</u>	<u>ALTERNATE SOURCE</u>
1. Over-voltage	\leq 129 VAC	\leq 132 VAC
2. Under-voltage	\geq 105 VAC	\geq 108 VAC
3. Under-frequency	\geq 57 Hz	\geq 57 Hz



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. 89
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 August 16, 1982 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 Appendices A and B, as revised through Amendment No. 89, 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

Robert A. Hermann
J. Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the
Technical Specifications

Date of Issuance: December 28, 1983

ATTACHMENT TO LICENSE AMENDMENT NO. 89

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-235

Revise the Appendix A Technical Specifications as follows:

Remove

VIII
3/4 8-12

Insert

VIII
3/4 8-12

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ELECTRICAL POWER SYSTEMS

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3. Under-frequency	$\geq 57 \text{ Hz}$	$\geq 57 \text{ Hz}$



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 64 TO FACILITY LICENSE NO. DPR-71 AND
AMENDMENT NO. 89 TO FACILITY LICENSE NO. DPR-62
CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2
DOCKET NOS. 50-325 AND 50-324

1.0 Introduction

Our concerns regarding the deficiencies in the existing design of reactor protection system (RPS) power monitoring in BWRs was transmitted to the Carolina Power & Light Company by NRC Generic Letter dated September 24, 1980. In response to this, by letters dated December 10, 1980 and January 29, 1982, the licensee proposed design modifications and changes to the Technical Specifications. A detailed review and Technical Evaluation of these proposed modifications was performed and the proposed modifications found acceptable in a staff Safety Evaluation dated August 3, 1982. New Technical Specifications were proposed subsequently by letter dated May 24, 1982, which was superseded by letter dated August 16, 1982. The amendments would add Limiting Conditions for Operation and surveillance requirements for the Reactor Protection System (RPS) electrical power supplies. The change is intended to assure that the power produced by the RPS motor-generator sets is of a quality acceptable to the RPS.

2.0 Evaluation

Technical Specification changes were proposed by the licensee based on the installation of General Electric (GE) designed protection assemblies, two in each of the three sources of power to the RPS (RPS M-G sets A and B and the one alternate source). Each assembly includes a circuit breaker and a monitoring module consisting of an undervoltage, overvoltage and an under-frequency sensing relay.

The licensee proposed Limiting Condition for Operation (LCO) and Surveillance Requirements. The LCO requires two operable power monitoring channels for each inservice RPS MG set or alternative power source. Corrective actions are specified for inoperable monitoring channels. The surveillance requirements require a channel functional test every six months and demonstrated operability, including trip set points for overvoltage, undervoltage and underfrequency conditions.

We have reviewed the licensee proposed Technical Specifications and conclude that the trip set points are acceptable. We have also discussed the need for

time delays for the relays. The licensee reported a time delay tolerance of 0.133 seconds which is within the recommended value of ≤ of 0.14 seconds.

3.0 Environmental Considerations

We have determined that the amendments do 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 amendments involve 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 these amendments.

4.0 Conclusions.

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: December 28, 1983

Principal Contributors:

J. Carter

I. Ahmed



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December 27, 1983

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Posted
Amdt. 88
to DPR-62

Docket Nos. 50-325/324

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

Dear Mr. Utley:

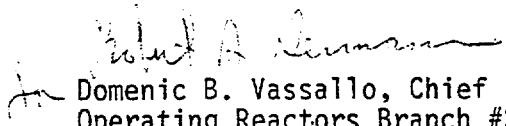
The Commission has issued the enclosed Amendment Nos. 62 and 88 to Facility Operating License Nos. DPR-71 and DPR-62 for Brunswick Steam Electric Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications in response to your application dated December 13, 1982 supplemented by letters dated October 17 and November 11, 1983 and discussions between the NRC staff and your staff. These changes have been discussed with and agreed to by members of your staff.

These amendments authorize changes to the Technical Specifications (1) to implement the requirements of Appendix I of 10 CFR Part 50; (2) to establish new limiting conditions for operation for the quarterly and annual average release rates; and (3) to revise environmental monitoring programs to assure conformance with the Commission's regulations.

As part of the December 13, 1982 application, you submitted copies of the Offsite Dose Calculation Manual and the Process Control Program. We have reviewed the Offsite Dose Calculation Manual and the Process Control Program and have found them acceptable.

A copy of the Safety Evaluation is also enclosed.

Sincerely,


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

Enclosures: *see 50-324*

1. Amendment No. 62 to
License No. DPR-71
2. Amendment No. 88 to
License No. DPR-62
3. Safety Evaluation

cc w/enclosures:
See next page

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Brunswick Steam Electric Plant, Units 1 and 2

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