

July 12, 1985

Docket No. 50-324

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

Dear Mr. Utley:

The Commission has issued the enclosed Amendment No. 112 to Facility Operating License No. DPR-62 for the Brunswick Steam Electric Plant, Unit 2. This amendment consists of changes to the Technical Specifications (TS) in response to your application of July 12, 1985.

The amendment changes the TS by revising the allowed maximum average temperature of the primary containment air from 135°F to 140°F for a period of 30 days from the effective date of this amendment.

A copy of the Safety Evaluation is also enclosed.

Sincerely,

Original signed by MCThadani for/

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

Enclosures:

1. Amendment No. 112 to License No. DPR-62
2. Safety Evaluation

cc w/enclosures:
See next page

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Mr. E. E. Utley
Carolina Power & Light Company
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. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 112
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 July 12, 1985, 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:

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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 112, 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: July 12, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 112

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Revise the Appendix A Technical Specifications by replacing the current page 3/4 6-8 with the enclosed page 3/4 6-8. The revised areas are indicated by marginal lines.

CONTAINMENT SYSTEMS

PRIMARY CONTAINMENT AVERAGE AIR TEMPERATURE

LIMITING CONDITION FOR OPERATION

3.6.1.6 Primary containment average air temperature shall not exceed 135°F.*

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

With the primary containment average air temperature > 135°F*, reduce the average air temperature to within the limit within 8 hours, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 12 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.6 The primary containment average air temperature shall be the volumetric average of the temperatures at the following locations and shall be determined at least once per 24 hours:

Location

- a. Below 5' elevation,
- b. Between 10' and 23' elevation,
- c. Between 28' and 45' elevation,
- d. Between 70' and 80' elevation, and
- e. Above 90' elevation.

* The primary containment average air temperature limit may be increased to 140°F until August 15, 1985, at which time the limit will be returned to 135°F.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 112 TO FACILITY LICENSE NO. DPR-62

CAROLINA POWER & LIGHT COMPANY

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

DOCKET NO. 50-324

1.0 INTRODUCTION

By a letter dated July 12, 1985, the Carolina Power & Light Company (CP&L, the licensee) requested that the Technical Specifications (TS) for the Brunswick Steam Electric Plant, Unit 2 be modified to allow the primary containment maximum average air temperature to be raised from 135°F to 140°F for a period of 30 days.

The licensee stated that as a result of unusually warm weather, very high air temperatures have been experienced in the Brunswick Steam Electric Plant area and the service water temperature has risen to a point where the efficiency of the drywell cooling capacity has forced the licensee to reduce the heat input to the containment air to ensure that the air temperature remains below the Technical Specification limit of 135°F. In the absence of any other means, the licensee has reduced the containment air heat input by lowering the circulation pump speed, which also results in derating the plant output. At the time of the licensee's request for a Technical Specification change, the power generation was derated from 100% to 71% and the circulation pump speed was reduced to the minimum permissible. Any further increase of atmospheric temperature would result in a plant shutdown. The licensee has taken mitigating actions and has commenced work on installation of a drywell service water cooling system to provide the necessary additional cooling capacity. The licensee states that the additional cooling system is scheduled to be operational within 30 days. Therefore, in order to avoid the need for a forced shutdown of the plant during the ensuing peak summer period, the licensee proposes to raise the Technical Specification limit on containment air average temperature from 135°F to 140°F. The licensee states that the limiting temperature will be returned to 135°F within 30 days or upon successful installation and operation of the new service water cooling system.

2.0 EVALUATION

The licensee has evaluated the effect of the change in the containment air temperature against the environmental qualification criteria, drywell concrete design requirements, and the bounding assumptions made in the Final Safety Analysis Report (FSAR) analyses of a loss-of-coolant accident (LOCA). The licensee stated that the only adverse impact would arise from the change in environmental qualification. Operation at the proposed

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elevated temperature could cause accelerated aging in some components, resulting in the need for these components to be replaced at an earlier date.

Despite the increased aging, component operability will not be affected. Due to the short period of time during which these components may be subjected to higher operating temperatures (a maximum of 30 days) and the small overall increase in that temperature (5°F), the effect on the component's expected life is negligible.

The analysis and increased temperature profile are still within the bounds of the LOCA analysis. Environmental qualification of drywell components will, therefore, not be affected by the proposed change.

An evaluation has determined that the margin of safety will not be affected by this change. An increase in the drywell temperature during normal operation would reduce the air and noncondensibles within the drywell. Thus, in the unlikely event of a LOCA, the final drywell temperature and pressure will not change significantly from that currently analyzed and the environmental qualification and drywell concrete limits remain within design criteria.

The staff has reviewed the above evaluation of the licensee and concludes that the environmental qualifications, operation in a slightly elevated temperature environment (5°F), and the effect on the maximum containment pressure and temperature reached following a LOCA will not be significantly altered. The proposed change is therefore acceptable.

3.0 CONCLUSIONS

3.1 Final No Significant Hazards Consideration Determination

3.1.1 State Consultation

In accordance with the Commission's regulations, consultation was held with the State of North Carolina, by telephone. The State expressed no concern over the proposed revision to the containment air maximum average temperature limits.

3.1.2 Response to Comments

No comments were received. A notice of the proposed amendment was not published in the FEDERAL REGISTER due to the lack of sufficient time for public comment.

3.1.3 No Significant Hazards Consideration Determination

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a proposed license amendment 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; or
- (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.

The information in this Safety Evaluation provides the basis for evaluating the proposed license amendment against these criteria. The operation in a slightly elevated temperature environment (increase of 5°F) will not significantly affect the performance of the components and systems in the containment, and will not result in significant change in the containment pressure and temperature following a LOCA. Therefore, the staff concludes that:

- (1) Operation of the facility in accordance with the proposed amendment would not significantly increase the probability or consequences of an accident previously evaluated.
- (2) Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated.
- (3) Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety.

Accordingly, we conclude that the amendment to Facility Operating License No. DPR-62 involves no significant hazards consideration.

4.0 ENVIRONMENTAL CONSIDERATIONS

The amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has made a final no significant hazards consideration finding with respect to this amendment. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Mohan Thadani

Dated: July 12, 1985