

November 21, 1994

Mr. C. S. Hinnant, Vice President
Carolina Power & Light Company
H. B. Robinson Steam Electric Plant,
Unit No. 2
Post Office Box 790
Hartsville, South Carolina 29551-0790

Dear Mr. Hinnant:

SUBJECT: ISSUANCE OF AMENDMENT NO. 153 TO FACILITY OPERATING LICENSE NO. DPR-23 REGARDING OPPOSITE TRAIN SURVEILLANCE TESTING REQUIREMENTS - H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (TAC NO. M89842)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 153 to Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant, Unit No. 2. This amendment changes the Technical Specifications in response to your request dated June 29, 1994.

The amendment deletes the requirement to perform alternate train testing to demonstrate that other, similar, safety-related components are operable when components are found, or made, inoperable in the safety injection, residual heat removal, and containment spray systems. The surveillance requirements, which the licensee refers to as accelerated testing requirements, affect the safety injection (SI) pumps, residual heat removal (RHR) pumps, containment spray (CS), SI, RHR and CS flow paths.

A copy of the related Safety Evaluation is enclosed. Notice of Issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

Original signed by:

Brenda L. Mozafari, Project Manager
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-261

Enclosures:

- 1. Amendment No. 153 to DPR-23
- 2. Safety Evaluation

cc w/enclosures:
See next page

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AMENDMENT NO. 153 TO FACILITY OPERATING LICENSE NO. DPR-23 - H. B. ROBINSON
STEAM ELECTRIC PLANT, UNIT NO. 2

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-261

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 153
License No. DPR-23

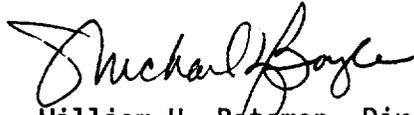
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Carolina Power & Light Company (the licensee), dated June 29, 1994, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules 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 3.B. of Facility Operating License No. DPR-23 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 153, are hereby incorporated in the license. Carolina Power & Light Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION


for William H. Bateman, Director
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 21, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 153

FACILITY OPERATING LICENSE NO. DPR-23

DOCKET NO. 50-261

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

<u>Remove Pages</u>	<u>Insert Pages</u>
3.3-3	3.3-3
3.3-4	3.3-4
3.3-6	3.3-6
3.3-10	3.3-10

- i. Power operation with less than three pumps in service is prohibited.

3.3.1.2 During power operation, the requirements of 3.3.1.1 may be modified to allow any one of the following components to be inoperable. If the system is not restored to meet the requirements of 3.3.1.1 within the time period specified, the reactor shall be placed in the hot shutdown condition utilizing normal operating procedures. If the requirements of 3.3.1.1 are not satisfied within an additional 48 hours, the reactor shall be placed in the cold shutdown condition utilizing normal operating procedures.

- a. One accumulator may be isolated or otherwise inoperable relative to the requirements of 3.3.1.1.b for a period not to exceed four hours.
- b. If one safety injection pump becomes inoperable during normal reactor operation, the reactor may remain in operation for a period not to exceed 24 hours.
- c. If one residual heat removal pump becomes inoperable during normal reactor operation, the reactor may remain in operation for a period not to exceed 24 hours.

- d. If a residual heat exchanger becomes inoperable during normal reactor operation, the reactor may remain in operation for a period not to exceed 24 hours.
- e. If any one flow path including valves of the safety injection or residual heat removal system is found to be inoperable during normal reactor operation, the reactor may remain in operation for a period not to exceed 24 hours. The hot leg injection paths of the Safety Injection System, including valves, are not subject to the requirements of this specification.
- f. Power or air supply may be restored to any valve referenced in 3.3.1.1.g. and 3.3.1.1.h. for the purpose of valve testing or maintenance providing no more than one valve has power restored and provided that testing and maintenance is completed and power removed within 24 hours except for accumulator isolation valves (MOV 865 A,B,&C) which will have this time period limited to four hours.

3.3.2.2

During power operation, the requirements of 3.2.1 may be modified to allow any one of the following components to be inoperable. If the system is not restored to meet the requirements of 3.3.2.1 within the time period specified, the reactor shall be placed in the hot shutdown condition utilizing normal operating procedures. If the requirements of 3.3.2.1 are not satisfied within an additional 48 hours, the reactor shall be placed in the cold shutdown condition utilizing normal operating procedures.

- a. If one fan cooler unit or the flow path for a fan cooler unit becomes inoperable during normal reactor operation, the reactor may remain in operation for a period not to exceed 24 hours, provided both containment spray pumps are operable.
- b. If one containment spray pump becomes inoperable during normal reactor operation, the reactor may remain in operation for a period not to exceed 24 hours, provided the four fan cooler units are operable.
- c. If either containment spray system flow path including valves becomes inoperative during normal operation, the reactor may remain in operation for a period not to exceed 24 hours.

3.3.2.3

When the reactor is in the hot shutdown condition, the requirements of 3.3.2.1 and 3.3.2.2 shall be met. Except that any one component as defined in 3.3.2.2 may be inoperable for a period equal to the time period specified in the subparagraphs of 3.3.2.2 plus 48 hours, after which the plant shall be placed in the cold shutdown condition utilizing normal operating procedures.

When it is determined that maintenance to restore components or systems to an operable condition will last longer than periods specified, the circumstances of the extended maintenance and the estimated date for returning the components or systems to an operable condition shall be promptly reported to the Director - Office of Nuclear Reactor Regulation and to the Director - Region II Office of Inspection and Enforcement. The purpose of prompt reporting is to allow the NRC to review the circumstances of the request for extended outage and to render a timely decision on whether to extend the specified out-of-service period while reactor operations continue.

Basis

During low temperature physics tests, there is a negligible amount of stored energy in the reactor coolant, therefore an accident comparable in severity to a Design Basis Accident is not possible, and the engineering safety features systems are not required.

The operable status of the various systems and components is to be demonstrated by periodic tests, defined by Specification 4.5. A large fraction of these tests will be performed while the reactor is operating in the power range. If a component is found to be inoperable, it will be possible in most cases to effect repairs and restore the system to full operability within a relatively short time. For a single component to be inoperable does not negate the ability of the system to perform its function, but it reduces the redundancy provided in the system design and thereby limits the ability to tolerate additional equipment failures. For this reason, the unit is allowed to operate only for a limited time as specified when this condition occurs.

6.13 HIGH RADIATION AREA

- 6.13.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.1601(a) of 10 CFR 20, each High Radiation Area in which the intensity of radiation is 1000 mRem/hr or less shall be barricaded and conspicuously posted as a High Radiation Area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit (RWP).^{*} Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:
- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.
 - b. A radiation monitoring device provided for each individual which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate levels in the area have been established and personnel have been made knowledgeable of them.
 - c. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the Radiation Control Supervisor in the Radiation Work Permit.

- 6.13.2 The requirements of 6.13.1 above shall also apply to each high radiation area in which the intensity of radiation is greater than 1000 mRem/hr at 30 centimeters (12 inches) from the radiation source or from any surface penetrated by the radiation, but less than 500 rads/hour at 1 meter from the radiation source or from any surface penetrated by the radiation. In addition, locked doors shall be provided to prevent unauthorized entry into such areas and the keys shall be maintained under the administrative control of the Operations Shift Supervisor on duty and/or the Radiation Control Supervisor. Entrance there to shall also be controlled by requiring issuance of a Radiation Work Permit. The footnote for Section 6.13.1 is not applicable to each high radiation area in which the intensity of radiation is greater than 1000 mRem/hr.

^{*} Health Physics personnel or personnel escorted by Health Physics personnel shall be exempt from the RWP issuance requirement during the performance of their assigned duties within the RCA, provided they comply with approved radiation protection procedures for entry into high radiation areas.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 153 TO FACILITY OPERATING LICENSE NO. DPR-23
CAROLINA POWER & LIGHT COMPANY
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261

1.0 INTRODUCTION

By letter dated June 29, 1994, the Carolina Power & Light Company (licensee) submitted a request for changes to the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBR2), Technical Specifications (TS). The requested changes would delete the requirements to perform alternate train testing to demonstrate that other, similar, safety-related components are operable when components are found, or made, inoperable in the safety injection, residual heat removal, and containment spray systems.

2.0 EVALUATION

The surveillance requirements, which the licensee refers to as accelerated testing requirements, affect the following components:

- (a) Safety Injection (SI) pumps (TS 3.3.1.2.b)
- (b) Residual Heat Removal (RHR) pumps (TS 3.3.1.2.c)
- (c) SI and RHR flow paths (TS 3.3.1.2.e)
- (d) Containment Spray (CS) (TS 3.3.2.2.a and b)
- (e) CS flow paths (TS 3.3.2.2.c)

Alternate train testing, which the licensee refers to as accelerated testing, is testing to demonstrate that a component/system which will remain available, is operable prior to removing a redundant component/system from service. At the time the operating license was issued for HBR2, such requirements were intended to verify that a loss of safety function had not occurred. However, based on operating experience, the NRC staff no longer requires such alternate train testing. Alternate train testing could increase accident consequences due to the inability to perform a mitigating function while one train is inoperable and the other is being tested.

The NRC's position, with respect to alternate train testing of redundant system or components, is presented in NUREG-1431, "Standard Technical Specifications for Westinghouse Plants" (W-TS). Operability of the alternate train of safety equipment is demonstrated by performance of the required periodic surveillance tests, thus, alternate train testing is not required. The NRC staff concludes that the elimination of the requirement to perform alternate train testing for the components/systems listed above is acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of South Carolina official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes the Surveillance Requirements. The NRC 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 previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (59 FR 39581). 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

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) 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: B. Mozafari

Date: November 21, 1994