

October 14, 1976
 Docket No.: 50-261

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Carolina Power & Light Company
 ATTN: Mr. J. A. Jones
 Senior Vice President
 336 Fayetteville Street
 Raleigh, North Carolina 27602

Gentlemen:

The Commission has issued the enclosed Amendment No. 24 to Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant Unit No. 2. The amendment consists of changes to the Technical Specifications in response to your application dated July 25, 1975 and staff discussions.

This amendment modifies the definition of containment integrity to permit continued plant operation during short periods of inoperability of automatic containment isolation valves required to be closed during accident conditions.

Copies of the Safety Evaluation and the Federal Register Notice are also enclosed.

Sincerely,

[Signature]
 Robert W. Reid, Chief
 Operating Reactors Branch #4
 Division of Operating Reactors

Enclosures:

1. Amendment No. 24
2. Safety Evaluation
3. Federal Register Notice

[Signature]
 10/10

OFFICE →	ORB#4:DOR	ORB#4:DOR	OELD	C-ORB#4:DOR		
SURNAME →	RIngram <i>ru</i>	GZwetzig:rm	<i>Tantillo</i>	RReid		
DATE →	9/23/76	9/24/76	10/5/76	10/14/76		

Carolina Power & Light Company

cc w/enclosure(s):
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cc w/enclosures & incoming
dated: 7/25/75
Office of Intergovernmental Relations
116 West Jones Street
Raleigh, North Carolina 27603



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

CAROLINA POWER AND LIGHT COMPANY

DOCKET NO. 50-261

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

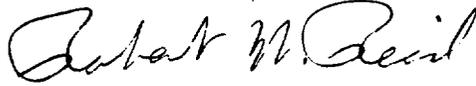
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 24
License No. DPR-23

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Carolina Power and Light Company (the licensee) dated July 25, 1975, 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.

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

FOR THE NUCLEAR REGULATORY COMMISSION



Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 14, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 24

FACILITY OPERATING LICENSE NO. DPR-23

DOCKET NO. 50-261

Revise Appendix A Technical Specifications as follows:

Remove Pages

1-3

3.6-2

Insert Pages

1-3

3.6-2

Changed areas on the revised pages are indicated by marginal lines.

1.6.2 Channel Functional Test

Injection of a simulated signal into the channel to verify that it is operable, including alarm and/or trip initiating action.

1.6.3 Channel Calibration

Adjustment of channel output such that it responds, with acceptable range and accuracy, to known value of the parameter which the channel measures. Calibration shall encompass the entire channel, including alarm or trip, and shall be deemed to include the channel functional test.

1.7 Containment Integrity

Containment integrity is defined to exist when:

- a. All non-automatic containment isolation valves not required for normal operation are closed and blind flanges are properly installed where required.
- b. The equipment door is properly closed and sealed.
- c. At least one door in the personnel air lock is properly closed and sealed.
- d. All automatic containment isolation trip valves required to be closed during accident conditions are operable or are secured closed except as stated in Specification 3.6.3. Manual valves qualifying as automatic containment isolation valves are secured closed.
- e. The uncontrolled containment leakage satisfies Specification 4.4.

3.6.3 Containment Automatic Isolation Trip Valves

The following exceptions apply only to automatic containment isolation valves required to be closed during accident conditions and which are either redundant or installed in a line which is part of a closed system within containment.

With one or more of the automatic containment isolation trip valves inoperable, either:

- a. Restore the inoperable valve(s) to operable status within 4 hours, or
- b. Isolate the affected penetration(s) within 4 hours by use of a deactivated automatic valve(s) secured in the isolation position(s), or
- c. Isolate the affected penetration(s) within 4 hours by use of a closed manual valve(s) or blind flange(s), or
- d. Be in cold shutdown within the next 36 hours.

Basis:

The Reactor Coolant System conditions of cold shutdown assure that no steam will be formed and hence there would be no pressure buildup in the containment if the Reactor Coolant System ruptures.

The shutdown margins are selected based on the type of activities that are being carried out. The 10% $\Delta K/K$ shutdown margin during refueling precludes criticality under any circumstances, even though fuel is being moved. When the reactor head is not to be removed, the specified cold shutdown margin of 1% $\Delta K/K$ precludes criticality in any occurrence.

Regarding internal pressure limitations, the containment design pressure of 42 psig would not be exceeded if the internal pressure before a major loss-of-coolant accident were as much as 4 psig. ⁽¹⁾ The containment is designed to withstand an internal vacuum of 2.0 psi. ⁽²⁾

References

- (1) FSAR - Section 14.3.4
- (2) FSAR - Section 5.1.2.3



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 24 TO FACILITY OPERATING LICENSE NO. DPR-23

CAROLINA POWER AND LIGHT COMPANY
H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2

DOCKET NO. 50-261

Introduction

By letter dated July 25, 1975, Carolina Power and Light Company (CP&L) requested certain changes to the Technical Specifications appended to Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant Unit No. 2 (Robinson-2). The proposed changes would modify the definition of containment integrity to permit continued plant operation during short periods of inoperability of automatic containment isolation valves required to be closed during accident conditions.

Discussion

Inoperability of an automatically actuated containment isolation valve can occur because of a malfunction of the valve (or its associated components and circuits), or because of intentional temporary disabling of the valve as required to effect repairs to equipment served by a process fluid controlled by that valve.

While a number of factors, including use of well-proven or qualified components and periodic surveillance and testing, serve to minimize the number of instances of inoperability of containment isolation valves, occasional inoperability can still be expected to occur. In such an event, the Robinson-2 Technical Specifications (Section 3.6.1), as presently written, require the reactor to be brought to a cold shutdown condition.

No time limit, however, is presently specified for attainment of the cold shutdown condition - a process which, normally takes from 24 to 36 hours. The present Robinson-2 Technical Specifications likewise do not provide for a given period for repair of a defective valve or for sealing off the affected system before reactor cooldown is started. Standard Technical Specifications which are used for plants more recent than Robinson-2, however, explicitly provide for a limited period of continued operation while repair of the defective valve is attempted.

The changes requested by CP&L would modify the present requirement to permit continued plant operation for a period of up to four hours with certain automatic containment isolation valves inoperable for the purpose of providing an opportunity to correct the malfunction. Unless the defect can be repaired or the affected system isolated within the four hour period, the reactor is then required to commence shutdown and be in the cold shutdown condition within 36 hours thereafter. This amendment, in those instances in which repair cannot be affected or the system isolated within four hours would, therefore, change the period from detection of the defect until the reactor is in a cold shutdown condition from an unspecified period normally ranging from 24 to 36 hours to a fixed maximum period of 40 hours.

Even for the limited period during which one isolation barrier is defective, there still remain multiple barriers to the release of fission products to the environment. These include the other isolation valve in the case of a redundant valve pair or the system boundary in the case of a closed system. Thus, even if an accident were to occur during this limited period, containment of fission products would be assured.

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 statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

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 accidents previously considered and does not involve a significant decrease in a safety margin, 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.

Dated: October 14, 1976

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-261

CAROLINA POWER AND LIGHT COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 24 to Facility Operating License No. DPR-23, issued to Carolina Power and Light Company (the licensee), which revised Technical Specifications for operation of the H. B. Robinson Steam Electric Plant Unit No. 2 (the facility) located in Darlington County, Hartsville, South Carolina. The amendment is effective as of its date of issuance.

The amendment modifies the definition of containment integrity to permit continued plant operation during short periods of inoperability of automatic containment isolation valves required to be closed during accident conditions.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

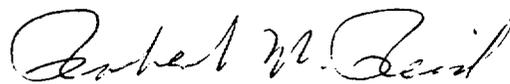
The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated July 25, 1975, (2) Amendment No. 24 to License No. DPR-23, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. and at the Hartsville Memorial Library, Home and Fifth Avenues, Hartsville, South Carolina.

A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 14th day of October 1976.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors