October 28, 1986

Docket No. 50-261

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

Dear Mr. Utley:

The Commission has issued the enclosed Amendment No. 108 to Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant Unit No. 2. This amendment consists of changes to the Technical Specifications in response to your request dated January 8, 1986.

The amendment revises the Technical Specification to reduce the reporting requirements for primary coolant iodine spiking from a short-term report to an item included in the Annual Report.

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

Sincerely,

Glode Requa, Project Manager
PWR Project Directorate #2
Division of PWR Licensing-A

Enclosures:
1. Amendment No. 108 to DPR-23
2. Safety Evaluation

cc: w/enclosures
See next page

LA:PAD#2	PM:PAD#2	OGC	PD:PAD#2
DMiller	GRequa/hc	Bachmann	LRubenstein
10/14/86	10/15/86	10/21/86	10/22/86

10/22/86

Mr. E. E. Utley
Carolina Power & Light Company

H. B. Robinson ?

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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. 108
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 January 8, 1986, 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. 108, 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

Lester S. Rubenstein, Director
PWR Project Directorate #2
Division of PWR Licensing-A

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 28, 1986

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 108 FACILITY OPERATING LICENSE NO. DPR-23

DOCKET NO. 50-261

Revise Appendix A as follows:

Remove Pages	Insert Pages
3.1-13	3.1-13
3.1-14	3.1-14
3.1-15	3.1-15
6.9-2	6.9-2
-----	6.9-2a
6.9-9	6.9-9

3.1.4 Maximum Reactor Coolant Activity

The total specific activity in μCi/gram of the reactor coolant shall not exceed 1.0 μCi/gram dose equivalent I-131 and $100/\bar{E}$ μCi/gram under all modes of operation. ($\bar{E}$ is the average of beta and gamma energy (MEV) per disintegration of the specific activity.)

With the specific activity of the primary coolant > 1.0 μCi/gram dose equivalent I-131 for more than 48 hours during one continuous time interval or exceeding the limit line shown on Figure 3.1.4-1, be in at least hot shutdown with T_{avg} < 500°F within 6 hours.

With the specific activity of the primary coolant > $100/\bar{E}$ μCi/gram, be in at least hot shutdown with T_{avg} < 500°F within 6 hours.

In any operating mode, with the specific activity of the primary coolant > 1.0 μCi/gram dose equivalent I-131 or > $100/\bar{E}$ μCi/gram, perform the sampling and analysis requirements of Item 1 of Table 4.1-2 until the specific activity of the primary coolant is restored to within its limits.

The specific activity of the primary coolant shall be determined to be within the limits by performance of the sampling and analysis program of Table 4.1-2.

Basis

The limitations on the specific activity of the primary coolant ensure that the resulting 2 hour doses at the site boundary will not exceed an appropriately small fraction of Part 100 limits following a steam generator tube rupture accident in conjunction with an assumed steady state primary-to-secondary steam generator leakage rate of 1.0 GPM.

The statement permitting POWER OPERATION to continue for limited time periods with the primary coolant's specific activity > 1.0 μCi/gram DOSE EQUIVALENT I-131, but within the allowable limit shown on Figure 3.1.4-1, accommodates possible iodine spiking phenomenon which may occur following changes in THERMAL POWER.

Reducing T_{avg} to < 500°F prevents the release of activity should a steam generator tube rupture since the saturation pressure of the primary coolant is below the lift pressure of the atmospheric steam relief valves. The surveillance requirements provide adequate assurance that excessive specific activity levels in the primary coolant will be detected in sufficient time to take corrective action. Information obtained on iodine spiking will be used to assess the parameters associated with spiking phenomena. A reduction in frequency of isotopic analyses following power changes may be permissible if justified by the data obtained.

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Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the startup report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

b. Annual Reports

Annual Reports covering the activities of the unit as described below for the previous calendar year shall be submitted prior to March 1 of each year. The initial report shall be submitted prior to March 1 of the year following initial criticality.

Reports required on an annual basis shall include:

1. A tabulation on an annual basis of the number of station, utility, and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man-rem exposure according to work and job functions* (e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance [describe maintenance], waste processing, and refueling). The dose assignments to various duty functions may be estimated based on pocket dosimeter, thermoluminescent dosimeter (TLD), or film badge measurements. Small exposures totaling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole-body dose received from external sources should be assigned to specific major work functions.

* This tabulation supplements the requirements of §20.407 of 10 CFR Part 20.

2. The results of specific analyses in which the primary coolant exceeded the limits of Specification 3.1.4. The following information shall be included: (a) reactor power history starting 48 hours prior to the first sample in which the limit was exceeded (in graphic and tabular format); (b) results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than limit. Each result should include date and time of sampling and the radioiodine concentrations; (c) clean-up flow history starting 48 hours prior to the first sample in which the limit was exceeded; (d) graph of the I-131 concentration (μCi/gm) and one other radioiodine isotope concentration (μCi/gm) as a function of time for the duration of the specific activity above the steady-state level; and (e) the time duration when the specific activity of the primary coolant exceeded the radioiodine limit.

3. Primary safety and relief valve challenges.

6.9.2 Deleted

6.9.3 Special Reports

6.9.3.1 Special reports shall be submitted to the Regional Administrator of the NRC Regional Office within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification:

	Area	Reference	Submittal Date
a.	Containment Leak Rate Testing	4.4	Upon completion of each test
b.	Containment Sample Tendon Surveillance	4.4	Upon completion of the inspection at 25 years of operation
c.	Post-Operational Containment Structural Test	4.4	Upon completion of the test at 20 years of operation
d.	Fire Protection System	3.14	As specified by limiting condition for operation
e.	Overpressure Protection System Operation	3.1.2.1.e	Within 30 days of operation
f.	Auxiliary Feedwater Pumps	3.4	Within 30 days after becoming inoperable

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 108 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

Generic Letter No. 85-19, "Reporting Requirements on Primary Coolant Iodine Spikes," discussed changing the requirements from a Licensee Event Report (LER) to a Special Report for operating conditions where specific activity limits of the reactor coolant are exceeded (See Generic Letter No. 83-43). The letter provided guidelines for licensee's reporting requirements and for including the information in the Annual Report. Guidelines were also provided to eliminate the Technical Specification requirement to shut down a plant if the coolant iodine activity limits are exceeded for 800 hours in a 12-month period. A sample Technical Specification, acceptable to the staff, was also provided.

By letter dated January 8, 1986, Carolina Power & Light Company (the licensee) submitted an application to revise their Technical Specification in accordance with the guidance of Generic Letter 85-19.

Evaluation

Generic Letter No. 85-19 provided the following evaluation with regard to iodine spiking:

> "As part of our continuing program to delete unnecessary reporting requirements, we have reviewed the reporting requirements related to primary coolant specific activity levels, specifically primary coolant iodine spikes. We have determined that the reporting requirements for iodine spiking can be reduced from a short-term report (Special Report or Licensee Event Report) to an item which is to be included in the Annual Report. The information to be included in the Annual Report is similar to that previously required in the Licensee Event Report but has been changed to more clearly designate the results to be included from the specific activity analysis and to delete the information regarding fuel burnup by core region.
>
> In our effort to eliminate unnecessary Technical Specification requirements, we have also determined that the existing requirements to shut down a plant if coolant iodine activity limits are exceeded for 800 hours in a 12-month period can be eliminated. The quality of nuclear fuel has been greatly improved over the past decade with the result that normal coolant

iodine activity (i.e., in the absence of iodine spiking) is well below the limit. Appropriate actions would be initiated long before accumulating 800 hours above the iodine activity limit. In addition, 10 CFR 50.72(b)(1)(ii) requires the NRC to be immediately notified of fuel cladding failures that exceed expected values or that are caused by unexpected factors. Therefore, this Technical Specification limit is no longer considered necessary on the basis that proper fuel management by licensees and existing reporting requirements should preclude ever approaching the limit."

We have reviewed the licensee's application and find that their requested TS change meets the guidance of the model TS contained in Generic Letter No. 85-19. Therefore, based on this, as well as the above discussion, we find the Technical Specification acceptable.

Environmental Consideration

This 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 previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this 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 this amendment.

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

Dated: October 28, 1986

Principal Contributor:

G. Requa