



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.94  
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licensee) dated February 7, 1984, as supplemented by letters dated July 20, 1984 and January 31, 1985 all of which were superseded by letter dated May 2, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and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 paragraphs 3.B and 3.G of Facility Operating License No. DPR-23 is hereby amended to read as follows:

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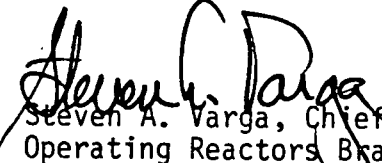
(B) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 94, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- G. The following programs shall be implemented and maintained by the licensee:
- (1) A secondary water chemistry monitoring program to inhibit steam generator tube degradation. This program shall include: the identification of critical parameters, their sampling frequency, sampling points and control band limits; requirements for the documentation and review of sample results; the identification of the authority responsible for the interpretation of sample results; the procedures used to measure the critical parameters; and the procedures which identify the administrative events and corrective actions required to return the secondary chemistry to its normal control band following an out of control band condition.
  - (2) A program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. This program shall include: provisions for preventive maintenance and periodic visual inspection requirements, and integrated leak test requirements for each system at a frequency not to exceed refueling cycle intervals.
  - (3) A program to determine the airborne iodine concentration in vital areas under accident conditions. This program shall include: training of personnel, procedures for monitoring, and provisions for maintenance of sampling and analysis equipment.
  - (4) A program to ensure the capability to obtain and analyze reactor coolant, radioactive iodines, and particulates in plant gaseous effluents, and containment atmosphere samples under accident conditions. The program shall include: training of personnel, procedures for sampling and analysis, and provisions for maintenance of sampling and analysis equipment.

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

FOR THE NUCLEAR REGULATORY COMMISSION

  
Steven A. Varga, Chief  
Operating Reactors Branch #1  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: August 29, 1985

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 94 FACILITY OPERATING LICENSE NO. DPR-23

DOCKET NO. 50-261

Revise Appendix A as follows:

Remove Pages

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3.5-18  
3.5-19  
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4.1-8  
4.1-9  
4.17-1  
4.18-1

Insert Pages

3.1-3c  
3.5-18  
3.5-19  
3.5-19a  
4.1-8  
4.1-9  
4.17-1  
4.18-1

**3.1.1.4 Reactor Coolant System (RCS) Vent Path**

- A. When the RCS temperature is greater than 200°F, the RCS vent paths consisting of at least two valves in series powered from emergency buses, shall be operable (except that valves RC-567, 568, 569, and 570 shall be closed with power removed from the valve actuators) from each of the following locations:
1. Reactor Vessel Head
  2. Pressurizer Steam Space
- B. When the RCS temperature is greater than 200°F, RCS vent path valves RC-571 and 572 shall be closed, except that they may be periodically cycled to depressurize the RCS vent system should leakage past RC-567, 568, 569, or 570 occur.
- C. With less than the above required equipment operable, perform the following as applicable:
1. With the Reactor Vessel Head vent path inoperable, restore the vent path to operable status within 30 days or be in Hot Shutdown within 6 hours and Cold Shutdown within the following 30 hours.
  2. With the Pressurizer Steam Space vent path inoperable, restore the vent path to operable status within 30 days, or prepare and submit a special report to the NRC within the following 14 days detailing the cause of the inoperable vent path, the action being taken to restore the vent path to operable status, the estimated date for completion of repairs, and any compensatory action being taken while the vent path is inoperable.
  3. With both the Reactor Vessel Head and Pressurizer Steam Space vent paths inoperable, restore at least one vent path to operable status within 7 days or be in HOT SHUTDOWN within 6 hours and COLD SHUTDOWN within the following 30 hours.

TABLE 3.5-5

(THIS TABLE APPLIES WHEN THE RCS IS > 350°F)  
INSTRUMENTATION TO FOLLOW THE COURSE OF AN ACCIDENT

NO.	INSTRUMENT	1 MINIMUM CHANNELS OPERABLE	2 OPERATOR ACTION IF CONDITIONS OF COLUMN 1 CANNOT BE MET
1	Pressurizer Level	2	See Item 9 Table 3.5-2
2	Auxiliary Feedwater Flow Indication (Primary Indication)		Note 1
	SD AFW Pump	1 per S/G	
	MD AFW Pump	1 per S/G	
3	Reactor Coolant System Subcooling Monitor	1	Note 2
4	PORV Position Indicator (Primary)	1	Note 3
5	PORV Blocking Valve Position Indicator (Primary)	1	Note 3
6	Safety Valve Position Indicator (Primary)	1	Note 3
7	Noble Gas Effluent Monitors *****		
	a. Main Steam Line	1 per steamline	Note 4
	b. Main Vent Stack		
	High Range	1	Note 4
	Mid Range	1	Note 4
	c. Spent Fuel Pit-Lower Level		
	High Range	1	Note 4
8	CV High Range Radiation Monitor ****	2	Note 4
9	CV Level (Wide Range) *	2	Note 5
10	CV Pressure (Wide Range) **	2	Note 5
11	CV Hydrogen Monitor ***	1	Note 6

\* Containment Water Level Monitor - NUREG-0737 Item II.F.1.5

\*\* Containment Pressure Monitor - NUREG-0737 Item II.F.1.4

\*\*\* Containment Hydrogen Monitor - NUREG-0737 Item II.F.1.6

\*\*\*\* Containment High-Range Radiation Monitor - NUREG-0737 Item II.F.1.3

\*\*\*\*\* Noble Gas Effluent Monitors - NUREG-0737 Item II.F.1.1

TABLE 3.5-5 (Continued)

INSTRUMENTATION TO FOLLOW THE COURSE OF AN ACCIDENTTABLE NOTATION

- Note 1: The three AFW lines from the MD AFW pumps and three AFW lines from the SD AFW pump each contain one primary flow indicator (2 AFW flow paths per steam generator for a total of 6 AFW lines). These primary indicators are backed up by the narrow range steam generator level indications. If one or more of the direct AFW flow indicators becomes inoperable when the RCS is  $> 350^{\circ}\text{F}$ , restore the indicator(s) to an operable status within 7 days, or prepare and submit a special report to the NRC within the following 14 days detailing the cause(s) of the inoperable indicator(s), the actions being taken to restore the indicator(s) to an operating status, the estimated date for completion of the repairs, and any compensatory action being taken while the indicator(s) is operable. The action required when any of the back-up indicators of AFW flow are inoperable is described in Table 3.5-2.
- Note 2: If both channels of the RCS subcooling monitor become inoperable when the RCS is  $> 350^{\circ}\text{F}$ , restore at least one channel to an operable status within 7 days, or prepare and submit a special report to the NRC within the following 14 days detailing the cause(s) of the inoperable channels, the actions being taken to restore at least one channel to an operable status, the estimated date for completion of the repairs, and any compensatory action being taken while both channels are inoperable.
- Note 3: The Pzr PORVs and Pzr PORV blocking valves both incorporate limit switches for the direct (primary) means of position indication. The back-up method of position indication consists of the PRT pressure and a temperature element in a common line downstream of the valves. The Pzr safety relief valves incorporate a vibration monitoring system as the primary method of valve position indication. The back-up method of position indication consists of a temperature element downstream of each valve and PRT pressure. If the primary method of position indication for either the Pzr PORVs, Pzr PORV blocking valves, or Pzr safety relief valves becomes inoperable when the RCS is  $> 350^{\circ}\text{F}$ , restore the primary method to an operable status within 7 days, or prepare and submit a special report to the NRC within the following 14 days detailing the cause of the inoperable primary position indication method, the actions being taken to restore it to an operable status, the estimated date for completion of the repairs, and any compensatory action being taken while the primary position indication method is inoperable. If any of the back-up methods of position indication for these valves becomes inoperable, it is to be repaired as soon as plant conditions permit.

TABLE 3.5-5 (Continued)

INSTRUMENTATION TO FOLLOW THE COURSE OF AN ACCIDENTTABLE NOTATION

- Note 4: With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, restore the inoperable Channel(s) to OPERABLE status within 7 days or, prepare and submit a Special Report to the NRC within the following 14 days detailing the cause of the inoperable Channel(s), the action being taken to restore the Channel(s) to operable status, the estimated date for completion of repairs, and any compensatory action being taken while the Channel(s) is inoperable.
- Note 5: If one channel is inoperable, restore the channel to operable status within 30 days or, prepare and submit a special report to the NRC within the following 14 days detailing the cause(s) of the inoperable channels, the actions being taken to restore the channel to operable status, the estimated date for completion of the repairs, and the compensatory action being taken while the channel is inoperable. If both channels become inoperable and a pre-planned alternate method of monitoring is available, then restore at least one channel to operable status within 7 days or prepare and submit a special report to the NRC within the following 14 days detailing the cause(s) of the inoperable channels, the action being taken to restore at least one channel to operable status, the estimated date for completion of the repairs, and a description of the alternate method of monitoring the affected parameter while both channels are inoperable. If a pre-planned alternate method of monitoring the affected parameter is not available and implemented with both channels inoperable, then restore at least one channel to an operable status within 7 days or be in Hot Shutdown within 6 hours and  $\leq 350^{\circ}\text{F}$  within the following 30 hours.
- Note 6: With both channels inoperable, restore at least one channel to an operable status within 14 days or be in Hot Shutdown within 6 hours and  $\leq 200^{\circ}\text{F}$  within the following 30 hours.



TABLE 4.1.1 (Continued)

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

<u>Channel Description</u>	<u>Check</u>	<u>Calibration</u>	<u>Test</u>	<u>Remarks</u>
32. Loss of Power				
a. 480 Emerg. Bus Undervoltage (Loss of Voltage)	N.A.	R	R	
b. 480 Emerg. Bus Undervoltage (Degraded Voltage)	N.A.	R	R	
33. Auxiliary Feedwater Flow**** Indication	M	N.A.	R	
34. Reactor Coolant System** Subcooling Monitor	M	R	N.A.	
35. PORV Position Indicator***	N.A.	N.A.	R	
36. PORV Blocking Valve*** Position Indicator	N.A.	N.A.	R	
37. Safety Relief Valve Position*** Indicator	N.A.	N.A.	R	
38. Noble Gas Effluent Monitors*****				
a. Main Steam Line	D	R	Q	

\*\* Instrument for Detection of Inadequate Core Cooling - NUREG 0578 Item 2.1.3.b.

\*\*\* Direct Indication of Power Operated Relief Valve and Safety Valve Position - NUREG 0578 Item 2.1.3.a.

\*\*\*\* Auxiliary Feedwater Flow Indication to Steam Generator - NUREG 0578 Item 2.1.7.b.

\*\*\*\*\* Noble Gas Effluent Monitors - NUREG-0737 Item II.F.1.1.

TABLE 4.1-1 (Continued)

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

<u>Channel Description</u>	<u>Check</u>	<u>Calibration</u>	<u>Test</u>	<u>Remarks</u>
b. Main Vent Stack				
High Range	D	R	Q	
Mid Range	D	R	Q	
c. Spent Fuel Pit-Lower Level				
High Range	D	R	Q	
39. Steam/Feedwater Flow Mismatch	N.A.	R	M	
40. Low Steam Generator Water Level	N.A.	R	M	
41. CV Level (Wide Range)+	M	R	R	
42. CV Pressure (Wide Range)++	M	R	R	
43. CV Hydrogen Monitor+++	M	R	R	
44. CV High Range Radiation Monitor++++	M	R#	R	
45. RCS High Point Vents	N.A.	N.A.	R	

+ Containment Water Level Monitor - NUREG-0737 Item II.F.1.5

++ Containment Pressure Monitor - NUREG-0737 Item II.F.1.4

+++ Containment Hydrogen Monitor - NUREG-0737 Item II.F.1.6

++++ Containment High-Range Radiation Monitor - NUREG-0737 Item II.F.1.3

# Calibration performed in accordance with CP&L's letter dated April 28, 1982; S. R. Zimmerman to S. A. Varga.

S - At least once per 12 hours

D - At least once per 24 hours

W - At least once per 7 days

B/W - At least once per 14 days

M - At least once per 31 days

Q - At least once per 92 days

S/U - Prior to each reactor startup if not performed  
in the previous seven (7) days

R - At least once per 18 months

N.A. - Not applicable

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