

DECEMBER 10 1980

Docket No. 50-261

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

Dear Mr. Jones:

The Commission has issued the enclosed Amendment No. 53 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 and is in response to your request dated September 27, 1979.

This amendment increases the minimum low-low generator water level reactor trip point from 5% to 14% of the narrow range instrument scale.

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

DISTRIBUTION

Docket File 50-261	I&E (5)
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ORB Reading	R. Diggs
D. Eisenhut	H. Denton
R. Purple	J. Heltemes
T. Novak	
R. Tedesco	
G. Lainas	
J. Roe	
C. Parrish	
D. Neighbors	
OELD	

Sincerely,

Original signed by:
S. A. Varga

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

RECEIVED DISTRIBUTION SERVICES UNIT

DEC 16 AM 2 21

Enclosures:

1. Amendment No. 53 to DPR-23
2. Safety Evaluation
3. Notice of Issuance

cc: w/enclosures
See next page

*No OLB
Approved
returned to govt
when
Hayes - Asperous Notice
condition cleared
add missing
part to F.R. Notice
KARMAH
11/18/80*

*F.R. NOTICE
AMENDMENT
11/25/80
KARMAH*

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OFFICE	DL:ORB1	DL:ORB1	DL:ORB1	DL:AD:OR	OELD	I&ECSB
SURNAME	DNeighbors	CParrish	SARMAH	Novak	KARMAH	SATREFFED
DATE	9/12/80	9/12/80	11/12/80	11/12/80	11/12/80	11/18/80



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

December 10, 1980

Docket No. 50-261

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

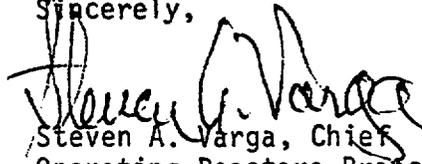
Dear Mr. Jones:

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

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2. Safety Evaluation
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cc: w/enclosures
See next page

Mr. J. A. Jones
Carolina Power and Light Company - 2 -

December 10, 1980

cc: G. F. Trowbridge, Esquire
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N.W.
Washington, D. C. 20036

U. S. Environmental Protection Agency
Region IV Office
ATTN: EIS COORDINATOR
345 Courtland Street, N.E.
Atlanta, Georgia 30308

Hartsville Memorial Library
Home and Fifth Avenues
Hartsville, South Carolina 29550

Mr. McCuen Morrell, Chairman
Darlington County Board of Supervisors
County Courthouse
Darlington, South Carolina 29535

State Clearinghouse
Division of Policy Development
116 West Jones Street
Raleigh, North Carolina 27603

Attorney General
Department of Justice
Justice Building
Raleigh, North Carolina 27602

U. S. Nuclear Regulatory Commission
Resident Inspector's Office
H. B. Robinson Steam Electric Plant
Route 5, Box 266-1A
Hartsville, South Carolina 29550

Michael C. Farrar, Chairman
Atomic Safety and Licensing
Appeal Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Richard S. Salzman
Atomic Safety and Licensing
Appeal Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. W. Reed Johnson
Atomic Safety and Licensing
Appeal Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Director, Criteria and Standards Division
Office of Radiation Programs (ANR-460)
U. S. Environmental Protection Agency
Washington, D. C. 20460



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

CAROLINA POWER AND LIGHT COMPANY

DOCKET NO. 50-261

H. B. ROBINSON, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 53
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 September 27, 1979 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.

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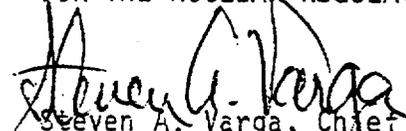
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-23 is hereby amended to read as follows:

(B) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 53, 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


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

Attachment:
Changes to the
Technical Specifications

Date of Issuance: December 10, 1980

ATTACHMENT TO LICENSE AMENDMENT NO. 53

FACILITY OPERATING LICENSE NO. DPR-23

DOCKET NO. 50-261

Replace the following page of the Appendix A Technical Specifications with the enclosed page. The revised page is identified by Amendment Number and contains a vertical line indicating the area of change.

Remove

2.3-3

Insert

2.3-3

c. Overpower ΔT

$$\leq \Delta T_o \left[K_4 - K_5 \frac{dT}{dt} - K_6 (T - T') - f(\Delta I) \right]$$

where:

ΔT_o = Indicated ΔT at rated power, °F

T = Average temperature, °F

T' = Indicated average temperature at nominal conditions
and rated power, °F

K_4 = 1.07

K_5 = 0 for decreasing average temperature

K_5 = 0.2 seconds per °F for increasing average temperature

K_6 = 0.002235 for $T > T'$; K_6 = 0 for $T < T'$

$f(\Delta I)$ = as defined in d. above.

f. Low reactor coolant loop flow $\geq 90\%$ of normal indicated flow

g. Low reactor coolant pump frequency ≥ 57.5 Hz

h. Under voltage $\geq 70\%$ of normal voltage.

2.3.1.3 Other Reactor Trips

a. High pressurizer water level $\leq 92\%$ of span

b. Low-low steam generator water level $\geq 14\%$ of narrow range
instrument span.

2.3.2 Protective instrumentation settings for reactor trip interlocks
shall be as follows:

2.3.2.1 The low pressurizer pressure trip, high pressurizer level trip,
and the low reactor coolant flow trip (for two or more loops)
may be bypassed below 10% of rated power.

2.3.2.2 The single-loop-loss-of-flow trip may be bypassed below 45% of
rated power.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 53 TO FACILITY

OPERATING LICENSE NO. DPR-23

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

DOCKET NO. 50-261

Introduction

By letter dated September 27, 1979, Carolina Power and Light Company (the licensee) requested an amendment to License No. DPR-23 for H. B. Robinson Steam Electric Plant, Unit No. 2. These changes will increase the "low-low steam generator water level" minimum reactor trip setpoint from 5% to 14% of the narrow range instrument scale.

Discussion

High energy line breaks inside containment can result in heatup of the steam generator level measurement reference leg. Increased reference leg water column temperature will result in a decrease of the water column density with a consequent apparent increase in the indicated steam generator water level (i.e., apparent level exceeding actual level). This potential level bias could result in delayed protection signals (reactor trip and auxiliary feedwater initiation) which are based on low-low steam generator water level. In the case of a feedline rupture, this adverse environment could be present and could delay or prevent the primary signal arising from declining steam generator water level (low-low steam generator level). High pressurizer pressure, overtemperature delta T, high containment pressure and safety injection are backup signals to steam generator water level with an adverse containment environment. For other high energy line breaks which could introduce a similar positive bias to the steam generator water level measurement, steam generator level does not provide the primary trip function and the potential bias would not interfere with needed protection system actuation.

Evaluation

Westinghouse (NSSS vendor for the Robinson Plant) has advised that the potential temperature-induced bias described above can be compensated for by raising the steam generator low-low water level setpoint. Westinghouse has recommended a change in the allowable water level setpoint sufficient to accommodate the bias (up to 10% of the instrument's range) which could result from containment temperatures up to 280°F. Containment analyses

have shown that following a secondary high energy line break, a containment high pressure signal would be generated before the containment temperature reaches 280°F. To alleviate the error which could result from the temperature effect described above, the licensee has proposed to increase the minimum allowable low-low steam generator water level Technical Specification setpoint from 5% to 14% of the narrow range instrument scale, with the actual setpoint being 15%. Increasing the setpoint by 10% of the instruments range will ensure that the trip setpoint maintains conservatism and compensates for the potential 10% error and conforms to the Robinson Unit 2 Precautions, Limitations and Setpoint Document (WCAP-7694).

Based on our review of the licensee's submittal, we find the proposed changes to the Technical Specifications acceptable.

Environmental Consideration

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 impact 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.

Date: December 10, 1980

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-261CAROLINA POWER AND LIGHT COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 53 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, South Carolina. The amendment is effective as of the date of issuance.

The amendment increases the minimum low-low generator water level reactor trip point from 5% to 14% of the narrow range instrument scale.

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 this amendment does not involve a significant hazards consideration.

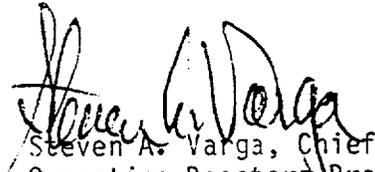
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The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal 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 September 27, 1979, (2) Amendment No. 53 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 29550. 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 Licensing.

Dated at Bethesda, Maryland, this 10th day of December, 1980.

FOR THE NUCLEAR REGULATORY COMMISSION


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