

December 17, 1991

Docket Nos. 50-413
and 50-414

Distribution
See next page

Mr. M. S. Tuckman
Vice President, Catawba Site
Duke Power Company
P. O. Box 256
Clover, South Carolina 29710

Dear Mr. Tuckman:

SUBJECT: ISSUANCE OF AMENDMENT NO. 93 TO FACILITY OPERATING LICENSE NPF-35
AND AMENDMENT NO. 87 TO FACILITY OPERATING LICENSE NPF-52 -
CATAWBA NUCLEAR STATION, UNITS 1 AND 2 (TACS M82113/M82114)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 93 to Facility Operating License NPF-35 and Amendment No. 87 to Facility Operating License NPF-52 for the Catawba Nuclear Station, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated November 20, 1991, as supplemented December 5, 1991, that requested the proposed amendment be reviewed on an exigent basis.

The amendments revise TS Table 2.2-1 to compensate for potential nonconservatism in the F-Delta I (axial flux differences) portion of the Overttemperature-Delta Temperature reactor trip function.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance of the amendments will be included in the Commission's biweekly Federal Register notice.

Sincerely,
/s/

Robert E. Martin, Project Manager
Project Directorate II-3
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 93 to NPF-35
2. Amendment No. 87 to NPF-52
3. Safety Evaluation

cc w/enclosures:
See next page

OFC	: PDII-3/LA	: PDII-3/PM	: <i>[Signature]</i>	: PDII-3/D	: <i>[Signature]</i>
NAME	: LBerry	: RMartin/rst	: RBachmann	: DMatthews	: <i>[Signature]</i>
DATE	: 12/11/91	: 12/05/91	: 12/06/91	: 12/17/91	: <i>[Signature]</i>

OFFICIAL RECORD COPY
Document Name: ERROR AMEND

[Handwritten initials/signatures]
JFO/111
CP
[Signature]

9201020206 911217
PDR ADDCK 05000413
P PDR

WNC FILE CENTER COPY



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

December 17, 1991

Docket Nos. 50-413
and 50-414

Mr. M. S. Tuckman
Vice President, Catawba Site
Duke Power Company
P. O. Box 256
Clover, South Carolina 29710

Dear Mr. Tuckman:

SUBJECT: ISSUANCE OF AMENDMENT NO. 93 TO FACILITY OPERATING LICENSE NPF-35
AND AMENDMENT NO. 87 TO FACILITY OPERATING LICENSE NPF-52 -
CATAWBA NUCLEAR STATION, UNITS 1 AND 2 (TACS M82113/M82114)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 93 to Facility Operating License NPF-35 and Amendment No. 87 to Facility Operating License NPF-52 for the Catawba Nuclear Station, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated November 20, 1991, as supplemented December 5, 1991, that requested the proposed amendment be reviewed on an exigent basis.

The amendments revise TS Table 2.2-1 to compensate for potential nonconservatisms in the F-Delta I (axial flux differences) portion of the Overttemperature-Delta Temperature reactor trip function.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance of the amendments will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Robert E. Martin, Project Manager
Project Directorate II-3
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 93 to NPF-35
2. Amendment No. 87 to NPF-52
3. Safety Evaluation

cc w/enclosures:
See next page

Mr. M. S. Tuckman
Duke Power Company

Catawba Nuclear Station

cc:

Mr. R. C. Futrell
Regulatory Compliance Manager
Duke Power Company
P. O. Box 256
Clover, South Carolina 29710

Mr. Alan R. Herdt, Chief
Project Branch #3
U.S. Nuclear Regulatory Commission
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Mr. A.V. Carr, Esq.
Duke Power Company
422 South Church Street
Charlotte, North Carolina 28242-0001

North Carolina Electric Membership
Corp.
P.O. Box 27306
Raleigh, North Carolina 27611

J. Michael McGarry, III, Esq.
Winston and Strawn
1400 L Street, N.W.
Washington, D. C. 20005

Saluda River Electric Cooperative,
Inc.
P.O. Box 929
Laurens, South Carolina 29360

North Carolina MPA-1
Suite 600
P.O. Box 29513
Raleigh, North Carolina 27626-513

Senior Resident Inspector
Route 2, Box 179N
York, South Carolina 29745

Mr. Frank Modrak
Project Manager, Mid-South Area
ESSD Projects
Westinghouse Electric Corp.
MNC West Tower - Bay 241
P.O. Box 355
Pittsburgh, Pennsylvania 15230

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

County Manager of York County
York County Courthouse
York, South Carolina 29745

Mr. Heyward G. Shealy, Chief
Bureau of Radiological Health
South Carolina Dept. of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Richard P. Wilson, Esq.
Assistant Attorney General
S.C. Attorney General's Office
P.O. Box 11549
Columbia, South Carolina 29211

Ms. Karen E. Long
Assistant Attorney General
North Carolina Dept. of Justice
P.O. Box 629
Raleigh, North Carolina 27602

Piedmont Municipal Power Agency
121 Village Drive
Greer, South Carolina 29651

Mr. R. L. Gill, Jr.
Licensing
Duke Power Company
P.O. Box 1007
Charlotte, North Carolina 28201-1007

DATED: DECEMBER 17, 1991

AMENDMENT NO. 93 TO FACILITY OPERATING LICENSE NPF-35 - Catawba Nuclear Station, Unit 1
AMENDMENT NO. 87 TO FACILITY OPERATING LICENSE NPF-52 - Catawba Nuclear Station, Unit 2

DISTRIBUTION:

Docket File

NRC & Local PDRs

PD II-3 R/F

Catawba R/F

S. Varga	14-E-4
D. Matthews	14-H-25
L. Berry	14-H-25
R. Martin	14-H-25
OGC-WF	15-B-18
D. Hagan	MNBB 4702
G. Hill (8)	P1-37
W. Jones	MNBB 7103
C. Grimes	11-F-23
ACRS (10)	P-135
GPA/PA	17-F-2
OC/LFMB	MNBB 4702



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

DUKE POWER COMPANY

NORTH CAROLINA ELECTRIC MEMBERSHIP CORPORATION

SALUDA RIVER ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-413

CATAWBA NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 93
License No. NPF-35

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Catawba Nuclear Station, Unit 1 (the facility) Facility Operating License No. NPF-35 filed by the Duke Power Company, acting for itself, North Carolina Electric Membership Corporation and Saluda River Electric Cooperative, Inc. (licensees) dated November 20, 1991, as supplemented December 5, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as 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 set forth in 10 CFR Chapter I;
 - 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 hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-35 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 93, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Duke Power Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION


David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: December 17, 1991



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

DUKE POWER COMPANY

NORTH CAROLINA MUNICIPAL POWER AGENCY NO. 1

PIEDMONT MUNICIPAL POWER AGENCY

DOCKET NO. 50-414

CATAWBA NUCLEAR STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 87
License No. NPF-52

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Catawba Nuclear Station, Unit 2 (the facility) Facility Operating License No. NPF-52 filed by the Duke Power Company, acting for itself, North Carolina Municipal Power Agency No. 1 and Piedmont Municipal Power Agency (licensees) dated November 20, 1991, as supplemented December 5, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as 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 set forth in 10 CFR Chapter I;
 - 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 hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-52 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 87 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Duke Power Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION

David B. Matthews, Jr.
David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: December 17, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 93

FACILITY OPERATING LICENSE NO. NPF-35

DOCKET NO. 50-413

AND

TO LICENSE AMENDMENT NO. 87

FACILITY OPERATING LICENSE NO. NPF-52

DOCKET NO. 50-414

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change.

Remove Pages

2 - 4
2 - 8

Insert Pages

2 - 4
2 - 8

TABLE 2.2.-1

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)		SENSOR ERROR (S)	TRIP SETPOINT	ALLOWABLE VALUE
	Z				
1. Manual Reactor Trip	N.A.	N.A.	N.A.	N.A.	N.A.
2. Power Range, Neutron Flux					
a. High Setpoint	7.5	5.92	0	<109% of RTP*	<110.9% of RTP*
b. Low Setpoint	8.3	5.92	0	<25% of RTP*	<27.1% of RTP*
3. Power Range, Neutron Flux, High Positive Rate	1.6	0.5	0	<5% of RTP* with a time constant > 2 seconds	<6.3% of RTP* with a time constant > 2 seconds
4. Power Range, Neutron Flux, High Negative Rate	1.6	0.5	0	<5% of RTP* with a time constant >2 seconds	<6.3% of RTP* with a time constant >2 seconds
5. Intermediate Range, Neutron Flux	17.0	8.4	0	<25% of RTP*	<31% of RTP*
6. Source Range, Neutron Flux	17.0	10	0	<10 ⁵ cps	<1.4 x 10 ⁵ cps
7. Overtemperature ΔT	6.98 for Unit 1 and 8.9 for Unit 2	3.0 for Unit 1 and 7.3 for Unit 2	2.12 for Unit 1 and 2.7 for Unit 2	See Note 1	See Note 2
8. Overpower ΔT	4.9	1.24	1.7	See Note 3	See Note 4
9. Pressurizer Pressure-Low	4.0	2.21	1.5	>1945 psig	>1938 psig***
10. Pressurizer Pressure-High	7.5	0.71	0.5	<2385 psig	<2399 psig
11. Pressurizer Water Level-High	5.0	2.18	1.5	<92% of instrument span	<93.8% of instrument span
12. Reactor Coolant Flow-Low	2.92	1.48	0.6	>90% of loop minimum measured flow**	>88.9% of loop minimum measured flow**

*RTP = RATED THERMAL POWER

**Loop minimum measured flow = 96,900 gpm (Unit 2), 96,250 gpm (Unit 1)

***Time constants utilized in the lead-lag controller for Pressurizer Pressure-Low are 2 seconds for lead and 1 second for lag. Channel calibration shall ensure that these time constants are adjusted to these values.

CATAWBA - UNITS 1 & 2

2-4

Amendment No. 93 (Unit 1)
Amendment No. 87 (Unit 2)

TABLE 2.2-1 (Continued)
TABLE NOTATIONS (Continued)

NOTE 1: (Continued)

T'	\leq	590.8°F (Nominal T_{avg} allowed by Safety Analysis);
K_3	=	0.001189;
P	=	Pressurizer pressure, psig;
P'	=	2235 psig (Nominal RCS operating pressure);
S	=	Laplace transform operator, s^{-1} ;

and $f_1(\Delta I)$ is a function of the indicated difference between top and bottom detectors of the power-range neutron ion chambers; with gains to be selected based on measured instrument response during plant STARTUP tests such that:

- (i) For $q_t - q_b$ between -22.5% and -6.5%,
 $f_1(\Delta I) = 0$, where q_t and q_b are percent RATED THERMAL POWER in the top and bottom halves of the core respectively, and $q_t + q_b$ is total THERMAL POWER in percent of RATED THERMAL POWER;
- (ii) For each percent that the magnitude of $q_t - q_b$ is more negative than -22.5%, the ΔT Trip Setpoint shall be automatically reduced by 3.151% of its value at RATED THERMAL POWER; and
- (iii) For each percent that the magnitude of $q_t - q_b$ is more positive than -6.5%, the ΔT Trip Setpoint shall be automatically reduced by 1.641% for Unit 1 and 2.414% for Unit 2 of its value at RATED THERMAL POWER.

NOTE 2: The channel's maximum Trip Setpoint shall not exceed its computed Trip Setpoint by more than 3.0% for Unit 1 and 1.3% for Unit 2.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 93 TO FACILITY OPERATING LICENSE NPF-35
AND AMENDMENT NO. 87 TO FACILITY OPERATING LICENSE NPF-52
DUKE POWER COMPANY, ET AL.
CATAWBA NUCLEAR STATION, UNITS 1 AND 2
DOCKET NOS. 50-413 AND 50-414

1.0 INTRODUCTION

By letter dated November 20, 1991, as supplemented December 5, 1991, the Duke Power Company (the licensee) submitted a request for changes to the Catawba Nuclear Station, Units 1 and 2, Technical Specifications (TS). The requested changes would change the parameters in TS Table 2.2-1 to compensate for potential nonconservatism in the F-Delta I (axial flux differences) portion of the Overtemperature-Delta Temperature (OTdT) reactor trip function for Unit 2. The December 5, 1991, letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

The Reactor Trip System (RTS) keeps the reactor operating within a safe region by shutting down the reactor whenever the limits of the region are approached. The safe operating region is defined by several considerations such as mechanical/hydraulic limitations on equipment and heat transfer phenomena. Therefore, the RTS keeps surveillance on process variables such as pressure, pressurizer water level, flow, reactor coolant temperatures, and others that are calculated from various process variables. One of these calculated variables is the core thermal overtemperature-delta temperature (OTdT) trip which is the subject of this safety evaluation. This trip provides protection from departure from nucleate boiling (DNB) in the core. It is a function of the core power level, coolant temperature, coolant pressure, and the core power distribution. For the core power distribution, a compensating term is derived which accounts for core power distributions more severe with respect to DNB than the reference core power distribution. This term is a function of the difference in the axial neutron flux (Delta I (dI)) produced in the top and bottom halves of the core. The neutron flux is measured by out-of-core ion chamber detectors mounted vertically outside the pressure vessel 90 degrees apart in plan. Each detector is centered on the core horizontal midplane and is divided into an upper (P_t) and lower half (P_b). Delta flux (dI) is defined as $P_t - P_b$ and the axial offset t is defined as $(P_t - P_b) / (P_t + P_b)$. Increases in dI_t beyond a certain band result in a decrease in the t trip setpoint.

The $f(\Delta I)$ function is included in the equation for the OTdT trip function in the Catawba TS Table 2.2-1, Note 1. This evaluation concerns the correction of a nonconservative assumption in the determination of the $f(\Delta I)$ function for the Catawba Unit 2 plant as discussed below.

2.0 EVALUATION

The OTdT reactor trip is designed to protect the core against departure from nucleate boiling (DNB) and subsequent cladding failure. The $f(\Delta I)$ reset portion of the OTdT trip function is designed to lower the trip setpoint when axial flux differences exceed predetermined limits. This revision changes the slope value for the positive wing of the $f(\Delta I)$ reset portion of the OTdT trip function for Unit 2. In addition, the Unit 2 values for Total Allowance, Z, Sensor Error (S) and Allowable Value given in TS Table 2.2-1 would be modified. This change is only required for Unit 2; the TS values for Unit 1 are unchanged and are retained on the common TS pages for Units 1 and 2.

Since the axial offset curve is a power reduction curve, the current Westinghouse methodology (Improved Thermal Design Procedure) uses a linear extrapolation to higher power levels than permissible. This is done so that when the power reduction is applied to the extrapolated core thermal limits for large axial offsets, the reduced power versus core thermal limits is in the range of permissible operation. This approach is valid for certain DNB correlations such as the W-3 correlation previously used in Westinghouse plants because the power reduction is essentially independent of power. However, since the axial offset limits may not be independent of power for the WRB-1 DNB correlation used in Unit 2, the extrapolated slope of the positive wing of the $f(\Delta I)$ reset function may not be as high as it would be if calculations were performed using actual axial offset limit data at the higher power levels and may result in a potentially nonconservative $f(\Delta I)$. The negative wing is not adversely affected because of the typically large negative ΔI band and since the axial power shapes with negative axial offsets are typically not limiting.

Because of this potential nonconservatism, Westinghouse performed an evaluation to determine a new value for the slope of the positive side of the axial offset band which would conservatively bound the operating region using their approved Improved Thermal Design Procedure. This new value was based on explicit calculated points at the higher power levels rather than on extrapolated values. Based on this, the OTdT trip setpoint will be reduced by 2.414% of its value at rated thermal power for each percent that the magnitude of indicated flux difference between top and bottom of the core is more positive than -6.5%. For Unit 1, this trip setpoint reduction value remains at 1.641%. This change in the positive wing results in changes to the Z and Allowable Value specified in TS Table 2.2-1. Included in the Z value is an increase in the uncertainty associated with flux map accuracy to +/- 1.3% ΔI span from +/- 1.2% ΔI span. The Total Allowance, Z, and S values also change as a result of using Westinghouse methodology instead of Duke methodology. Total Allowance, Z, and S for Unit 2 are increased to 8.9, 7.3, and 2.7 from 6.98, 3.0, and 2.12, respectively. The Westinghouse methodology includes the ΔI uncertainties in the K_1 term of the OTdT setpoint whereas the Duke methodology left the uncertainty allowances out of K_1 but used them to adjust the $f(\Delta I)$ trip reset function breakpoints.

The NRC staff has determined that these changes are acceptably correct for a nonconservatism in the Westinghouse methodology used to calculate the $f(\Delta I)$ reset portion of the OTdT trip function and are adequately incorporated in the proposed Unit 2 TS. The proposed Unit 2 TS changes will conservatively ensure adequate DNB protection during plant operation.

The staff has reviewed the proposed TS changes described above and finds that they ensure adequate DNB protection for the Catawba Unit 2 reactor core during plant operation. These changes are Unit 2 specific and do not affect the values for Unit 1 since the uncertainty allowances for Unit 1 were determined using an approved non-Westinghouse methodology.

3.0 EXIGENCY CIRCUMSTANCES

The licensee, in its November 20, 1991, application, requested that the proposed TS change be approved on an exigency basis. The licensee states that their evaluation and that of the vendor, Westinghouse Electric Corporation in this matter, resulted in a determination on October 21, 1991, that the resolution to the issue would require reanalysis and associated changes to the TS. The performance of the additional analysis and proposed revision to the TS was completed by Westinghouse and provided to the licensee on November 13, 1991. The licensee's organizational elements then performed their review of the proposed TS changes. The licensee then transmitted their application to the NRC on November 20, 1991. Catawba Unit 2 is now scheduled to start up from its present refueling outage on December 15, 1991, and would need the proposed amendment prior to December 15, 1991, in order to permit entry into MODE 2 and reactor startup.

The NRC staff concludes that, upon the determination that the resolution to the issue would require an amendment to the TS, the supporting analyses by Westinghouse and the licensee were performed in an expeditious fashion, and that the need for reviewing the application on an exigent basis could not then be avoided. Thus, pursuant to 10 CFR 50.91(a)(6), the staff finds that an exigent situation exists which would result in a delay in the startup of Unit 2.

4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION

The Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility, in accordance with the proposed amendment, would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from an accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The following evaluation in relation to the three standards demonstrates that the proposed amendment does not involve a significant hazards consideration.

These proposed changes to the Technical Specifications do not involve a significant increase in the probability or consequences of an accident previously evaluated.

Due to a potential nonconservatism discovered in the methodology used to calculate the f(dI) reset portion of the OTdT trip function, it was determined that the positive side of the axial offset band was nonconservative for Catawba Unit 2. The f(dI) reset portion of the trip function is designed to lower the trip setpoint when axial flux differences exceed predetermined limits. Since the limiting margins to DNB occur as the result of highly skewed power distributions, a slope change to the positive wing on the axial offset band is necessary in order to prevent the DNB limits from being exceeded. Therefore, an evaluation was performed to determine a new value for the slope of the positive sides of the axial offset band which conservatively bounds this operating region. Since this change ensures that the DNB limits are not exceeded, the probability or consequences of an accident previously evaluated are not increased.

The changes to the Z and Allowable Value reflect the change in the positive wing of the axial offset band. As discussed in the Technical Justification, included in the Z value is an increase in the uncertainty associated with flux map accuracy. The Total Allowance, Z, and S values also change as a result of using Westinghouse methodology to calculate the values instead of Duke methodology which was used to calculate the current values. Since these changes ensure that DNB limits are not exceeded, and systems used to mitigate an accident are not affected, the probability or consequences of an accident previously evaluated are not increased.

As discussed above, the proposed changes to the TS are being made to ensure that DNB limits are not exceeded. Because this change conservatively ensures that DNB limits are not exceeded, and because the operating of other plant systems are not affected, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

As discussed in the (licensee's) Technical Justification, it has been determined that the positive sides of the axial offset band was nonconservative for Catawba Unit 2. This change ensures that the nonconservatism in the Westinghouse methodology is accounted for, therefore increasing the margin of safety.

Based on the foregoing, the NRC staff has concluded that the standards of 10 CFR 50.92(c) are satisfied. Therefore, the Commission has made a final determination that the proposed amendments do not involve a significant hazards consideration.

5.0 STATE CONSULTATION

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

6.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve 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 amendments involve no significant hazards consideration, and there has been no public comment on such finding (56 FR 61062). Accordingly, the amendments meet 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 amendments.

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

Principal Contributor: Larry Kopp, SRXB

Date: December 17, 1991