



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

November 1, 1985

Docket No. 50-413

Mr. H. B. Tucker, Vice President
Nuclear Production Department
Duke Power Company
422 South Church Street
Charlotte, North Carolina 28242

Dear Mr. Tucker:

Subject: Issuance of Amendment No. 1 to Facility Operating License
NPF-35 - Catawba Nuclear Station, Unit 1

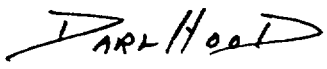
The Nuclear Regulatory Commission has issued the enclosed Amendment No. 1 to Facility Operating License NPF-35 for the Catawba Nuclear Station, Unit 1. This amendment consists of changes to the Technical Specifications in response to your application dated October 18, 1985. The amendment was authorized by telephone on October 18, 1985, and was confirmed by letter on October 21, 1985.

The amendment changes the Technical Specifications to extend, by 72 hours, on a one time basis, the time allowed in Mode 3 with unidentified reactor coolant system leakage greater than 1 GPM, but less than 5 GPM.

A copy of the related safety evaluation supporting Amendment No. 1 to Facility Operating License NPF-35 is enclosed.

Notice of issuance will be included in the Commission's next bi-monthly Federal Register notice.

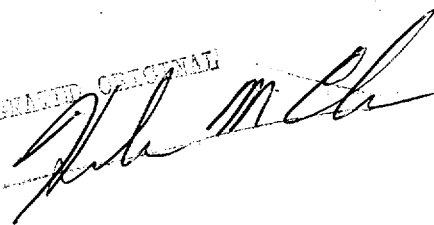
Sincerely,


for Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

Enclosures:

1. Amendment No. 1 to NPF-35
2. Safety Evaluation

cc w/encl:
See next page


Certified By _____
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November 1, 1985

AMENDMENT NO. 1 TO FACILITY OPERATING LICENSE NPF-35 -
CATAWBA NUCLEAR POWER STATION, UNIT 1

DISTRIBUTION:

✓ Docket No. 50-413
NRC PDR
Local PDR
NSIC
PRC System
LB #4 r/f
E. Adensam
K. Jabbour
M. Duncan
Attorney, OELD
R. Diggs, ADM
T. Barnhart (4)
E. L. Jordan, DEQA:I&E
L. J. Harmon, I&E File
B. Grimes
J. Partlow
M. Virgilio
A. Singh, ASB

DESIGNEED ORIGINAL
Certified By *[Signature]*

Mr. H. B. Tucker
Duke Power Company

Catawba Nuclear Station

cc:

William L. Porter, Esq.
Duke Power Company
P.O. Box 33189
Charlotte, North Carolina 28242

J. Michael McGarry, III, Esq.
Bishop, Liberman, Cook, Purcell
and Reynolds
1200 Seventeenth Street, N.W.
Washington, D. C. 20036

North Carolina MPA-1
Suite 600
3100 Smoketree Ct.
P.O. Box 29513
Raleigh, North Carolina 27626-0513

Mr. C. D. Markham
Power Systems Division
Westinghouse Electric Corp.
P.O. Box 355
Pittsburgh, Pennsylvania 15230

NUS Corporation
2536 Countryside Boulevard
Clearwater, Florida 33515

Mr. Jesse L. Riley, President
Carolina Environmental Study Group
854 Henley Place
Charlotte, North Carolina 28208

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

Piedmont Municipal Power Agency
100 Memorial Drive
Greer, South Carolina 29651

Mark S. Calvert, Esq.
Bishop, Liberman, Cook,
Purcell & Reynolds
1200 17th Street, N.W.
Washington, D. C. 20036

North Carolina Electric Membership
Corp.
3333 North Boulevard
P.O. Box 27306
Raleigh, North Carolina 27611

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

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

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

Robert Guild, Esq.
P.O. Box 12097
Charleston, South Carolina 29412

Palmetto Alliance
2135 1/2 Devine Street
Columbia, South Carolina 29205

Karen E. Long
Assistant Attorney General
N.C. Department of Justice
P.O. Box 629
Raleigh, North Carolina 27602

Spence Perry, Esquire
Associate General Counsel
Federal Emergency Management Agency
Room 840
500 C Street, S.W.
Washington, D. C. 20472

Mr. Michael Hirsch
Federal Emergency Management Agency
Office of the General Counsel
Room 840
500 C Street, S.W.
Washington, D. C. 20472

Catawba

- 2 -

cc:

Brian P. Cassidy, Regional Counsel
Federal Emergency Management Agency,
Region I
J. W. McCormach POCH
Boston, Massachusetts 02109

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

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

Attorney General
P.O. Box 11549
Columbia, South Carolina 29211



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. 1
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 October 18, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the 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 license amendment will not be inimical to the common defense and security or to the health and safety of the public;
 - 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 attachments to this license amendment and paragraph 2.C.(2) of Facility Operating License No. NPF-35 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

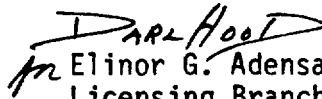
The Technical Specifications contained in Appendix A, as revised through Amendment No. 1, and the Environmental Protection Plan contained

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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 was effective October 18, 1985.

FOR THE NUCLEAR REGULATORY COMMISSION


Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

Attachment:
Technical Specification Changes

Date of Issuance: November 1, 1985

ATTACHMENT TO LICENSE AMENDMENT NO.1

FACILITY OPERATING LICENSE NO. NPF-35

DOCKET NO. 50-413

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised page is identified by Amendment number and contains vertical lines indicating the area of change. The corresponding overleaf page is also provided to maintain document completeness.

Amended
Page

3/4 4-20

Overleaf
Page

3/4 4-19

REACTOR COOLANT SYSTEM

3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

LEAKAGE DETECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.4.6.1 The following Reactor Coolant System Leakage Detection Systems shall be OPERABLE:

- a. The Containment Atmosphere Gaseous Radioactivity Monitoring System,
- b. The Containment Floor and Equipment Sump Level and Flow Monitoring Subsystem, and
- c. Either the Containment Ventilation Unit Condensate Drain Tank Level Monitoring Subsystem or the Containment Atmosphere Particulate Radioactivity Monitoring System.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With only two of the above required Leakage Detection Systems OPERABLE, operation may continue for up to 30 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours when the required Gaseous or Particulate Radioactivity Monitoring System is inoperable; otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.6.1 The Leakage Detection Systems shall be demonstrated OPERABLE by:

- a. Containment Atmosphere Gaseous and Particulate Monitoring System-performance of CHANNEL CHECK, CHANNEL CALIBRATION, and ANALOG CHANNEL OPERATIONAL TEST at the frequencies specified in Table 4.3-3,
- b. Containment Floor and Equipment Sump Level and Flow Monitoring Subsystem-performance of CHANNEL CALIBRATION at least once per 18 months, and
- c. Containment Ventilation Unit Condensate Drain Tank Level Monitoring Subsystem-performance of CHANNEL CALIBRATION at least once per 18 months.

REACTOR COOLANT SYSTEM

OPERATIONAL LEAKAGE

LIMITING CONDITION FOR OPERATION

3.4.6.2 Reactor Coolant System leakage shall be limited to:

- a. No PRESSURE BOUNDARY LEAKAGE,
- b. 1 gpm UNIDENTIFIED LEAKAGE,
- c. 1 gpm total reactor-to-secondary leakage through all steam generators and 500 gallons per day through any one steam generator,
- d. 10 gpm IDENTIFIED LEAKAGE from the Reactor Coolant System,
- e. 40 gpm CONTROLLED LEAKAGE at a Reactor Coolant System pressure of 2235 ± 20 psig, and
- f. 1 gpm leakage at a Reactor Coolant System pressure of 2235 ± 20 psig from any Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With any Reactor Coolant System leakage greater than any one of the above limits, excluding PRESSURE BOUNDARY LEAKAGE and leakage from Reactor Coolant System Pressure Isolation Valves, reduce the leakage rate to within limits within 4 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.*
- c. With any Reactor Coolant System Pressure Isolation Valve leakage greater than the above limit, isolate the high pressure portion of the affected system from the low pressure portion within 4 hours by use of at least two closed manual or deactivated automatic valves, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

*Until 0048 hours, October 23, 1985, operation in Modes 3 and 4 is permitted with the Reactor Coolant System unidentified leakage rate > 1 gpm but < 5 gpm. If the unidentified leakage rate is not reduced to < 1 gpm by the above time, the unit will be placed in COLD SHUTDOWN within the following 6 hours.



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SAFETY EVALUATION REPORT

RELATED TO AMENDMENT NO. 1 TO FACILITY OPERATING LICENSE NPF-35

CATAWBA NUCLEAR STATION, UNIT 1

DUKE POWER COMPANY

NORTH CAROLINA ELECTRIC MEMBERSHIP CORPORATION

SALUDA RIVER ELECTRIC COOPERATIVE, INC.

I. INTRODUCTION

By letter dated October 18, 1985, Duke Power Company requested an emergency change to Technical Specification 3.4.6.2 for Catawba Nuclear Station, Unit 1, with respect to the reactor coolant system (RCS) leakage. The requested amendment is needed because of 1.3 GPM unidentified leakage from the RCS which was first identified on October 18, 1985. The Technical Specification Action Statement was entered at 1448 hours. The request was to extend by 72 hours, on a one time basis, the time before which the facility would have to be placed in the cold shutdown condition with the RCS unidentified leakage rate greater than 1 GPM but less than 5 GPM.

II. EVALUATION

The requested emergency change to Technical Specification 3.4.6.2 is to extend, by 72 hours, on a one time basis, the time before which the facility must be placed in cold shutdown with the unidentified leakage greater than 1 GPM but less than 5 GPM. The change is needed because, with this low rate of leakage, it is difficult to identify the source of leakage. Reducing the pressure and temperature in accordance with the Action Statement of Technical Specification 3.4.6.2 (i.e., to be in cold shutdown) will make it even more difficult to detect the leak. The extension would provide increased opportunity for leakage paths to be identified for correction and avoid a delay in startup. The safety significance of such operation is negligible in view of the low leak rate and the brief extension requested. Since the leakage is not extensive and exceeds the Technical Specification limit by only a small amount, it poses no challenge to the ability of the reactor coolant makeup system to maintain system water inventory. Activity levels within the containment have remained within acceptable limits and do not indicate any gross leakage of reactor coolant. All other Technical Specifications are being met and the plant is in a stable condition. The safety margins contained in the LOCA analysis described in the FSAR are unaffected by this level of leakage and no new accident scenarios are created. The staff finds that the extension, by 72 hours, of the time allowed for Catawba Unit 1 to remain in Modes 3 and 4, is appropriate considering the safety significance of such operation and the specification, as revised is acceptable. Further, if there should be any substantial increase in leakage, greater than 5 GPM, prompt shutdown would be required.

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III. ENVIRONMENTAL CONSIDERATION

The amendment involves a change in use of facility components 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 made a final no significant hazards consideration finding with respect to the amendment. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 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 amendment.

IV. FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The State was informed by telephone on October 22, 1985, of the staff's no significant hazards consideration determination. The State contact had no comments on the determination. The Commission has provided certain examples (48 FR 14870) of actions likely to involve no significant hazards considerations. The licensees' request in this case does not match any of those examples. However, based on the review of the licensees' submittal as described herein, the staff has made a final determination that the licensees' amendment request does not involve a significant hazards consideration since operation of Catawba Unit 1 with the requested change would not (1) involve a significant increase in the probability or consequences of an accident previously analyzed since the duration of the change is for a 72 hour period only and the RCS leakage exceeds the Technical Specification limit by a very small amount; leakage exceeding 5 GPM would require prompt shutdown, (2) create the possibility of a new or different kind of accident from any accident previously analyzed since the change does not allow any changes from the design basis envelopes for any of the accidents previously analyzed, and (3) involve a significant reduction in a margin of safety because of the reasons cited above for (1) and (2) and since the plant will be subcritical during the limited time that the change is in effect.

V. FINDINGS OF EMERGENCY WARRANTING AN AMENDMENT WITHOUT NOTICE

Without this amendment, the licensee will be required to have the Unit in Mode 5 (Cold Shutdown) on Sunday, October 20, 1985, and will be delayed in startup. Leakage calculations first identified this problem on October 18, 1985, and Technical Specification 3.4.6.2, Action Statement b, was entered at 1448 hours. The licensee contacted the staff promptly after they entered the Action Statement, to discuss the licensee's proposal to amend the Technical Specification on an Emergency basis. The licensee requested the subject change to Technical Specification 3.4.6.2, Action Statement b, in its letter dated October 18, 1985. The licensee stated in their letter

that they could not have avoided this situation and have not delayed their application to take advantage of the Emergency License Amendment Provisions of 10 CFR 50.91.

The staff has reviewed the circumstances associated with the licensee's request and has discussed this with the NRC Resident Inspectors at Catawba Nuclear Station. The staff and the NRC Resident Inspectors agree with the licensee: (1) that failure of the NRC to take action would result in Catawba Unit 1 going to Cold Shutdown before the source of unidentified leakage was found and a delay in startup, and (2) that licensee made a timely application and adequately explained why it could not have avoided this situation. Thus, the staff has concluded that the licensee has satisfied the requirements of 10 CFR 50.91(a)(5), and a valid emergency exists.

VI. CONCLUSION

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

Principal Contributors: Kahtan N. Jabbour, Licensing Branch No. 4, DL
A. Singh, Auxiliary Systems Branch, DSI

Dated: November 1, 1985