May 25, 1994

Docket Nos. 50-413
and 50-414

Mr. David L. Rehn
Vice President, Catawba Site
Duke Power Company
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Dear Mr. Rehn:

SUBJECT: ISSUANCE OF AMENDMENTS - CATAWBA NUCLEAR STATION, UNITS 1 AND 2 (TAC NOS. M88747 AND M88748)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 118 to Facility Operating License NPF-35 and Amendment No. 112 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 January 27, 1994.

The amendments would eliminate the humidity control functions of the containment purge (VP) system humidistats by deleting the surveillance requirement (SR) for periodic verification of automatic isolation of the VP system on a high relative humidity (RH) test signal and heater failure from the existing SR for Catawba Units 1 and 2.

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

Sincerely,

Original signed by:

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

Enclosures:
1. Amendment No. 118 to NPF-35
2. Amendment No. 112 to NPF-52
3. Safety Evaluation

cc w/enclosures:
See next page

OFFICE	PDII-3/LA	PDII-3/PM	OGC		PDII-3/D
NAME	L. BERRY	R. MARTIN	C. Marco		D. MATTHEWS
DATE	5/9/94	5/11/94	5/12/94	/94	5/25/94

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Duke Power Company

Catawba Nuclear Station

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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. 118
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 January 27, 1994, 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. 118 , 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: May 25, 1994

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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. 112
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 January 27, 1994, 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. 112 , 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: May 25, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 118

FACILITY OPERATING LICENSE NO. NPF-35

DOCKET NO. 50-413

AND

TO LICENSE AMENDMENT NO. 112

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	Insert Pages
3/4 6-21	3/4 6-21
3/4 9-4	3/4 9-4

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.2 Each isolation valve specified in Tables 3.6-2a and 3.6-2b shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by:

a. Verifying that on a Phase "A" Isolation test signal, each Phase "A" isolation valve actuates to its isolation position;**

b. Verifying that on a Phase "B" Isolation test signal, each Phase "B" isolation valve actuates to its isolation position,**

c. Verifying that on a Containment Radioactivity-High test signal, each purge and exhaust valve actuates to its isolation position.

4.6.3.3 The isolation time of each power-operated or automatic valve of Tables 3.6-2a and 3.6-2b shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

** This surveillance need not be performed until prior to entering HOT SHUTDOWN following the Unit 1 first refueling.

3/4.9.4 CONTAINMENT BUILDING PENETRATIONS

LIMITING CONDITION FOR OPERATION

3.9.4 The containment building penetrations shall be in the following status:

a. The equipment hatch closed and held in place by a minimum of four bolts,

b. A minimum of one door in each airlock is closed, and

c. Each penetration providing direct access from the containment atmosphere to the outside atmosphere shall be either:

1) Closed by an isolation valve, blind flange, or manual valve, or

2) Exhausting through an OPERABLE Reactor Building Containment Purge System HEPA filters and activated carbon adsorbers.

APPLICABILITY: During CORE ALTERATIONS or movement of irradiated fuel within the containment.

ACTION:

a. With the requirements of the above specification not satisfied for reasons other than the heaters tested per 4.9.4.2.a and 4.9.4.2.d.2, immediately suspend all operations involving CORE ALTERATIONS or movement of irradiated fuel in the containment building.

b. With a heater tested per 4.9.4.2.a and 4.9.4.2.d.2 inoperable, restore the inoperable heater to operable status within 7 days, or file a Special Report in accordance with Specification 6.9.2 within 30 days, specifying the reason for inoperability and the planned actions to return the heater to operable status.

SURVEILLANCE REQUIREMENTS

4.9.4.1 Each of the above required containment building penetrations shall be determined to be either in its closed/isolated condition or exhausting through an OPERABLE Reactor Building Containment Purge System within 72 hours prior to the start of and at least once per 7 days during CORE ALTERATIONS or movement of irradiated fuel in the containment building by:

a. Verifying the penetrations are in their closed/isolated condition, or

b. Exhausting through an OPERABLE Reactor Building Containment Purge System.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 118 TO FACILITY OPERATING LICENSE NPF-35

AND AMENDMENT NO. 112 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 January 27, 1994, Duke Power Company, et al. (the licensee), for Catawba Nuclear Station, Units 1 and 2, proposed changes to surveillance requirements (SR) 4.6.3.2 and 4.9.4.1 for Technical Specifications (TS) 3/4.6.3 "Containment Isolation Valves," and 3/4.9.4, "Containment Building Penetrations." Specifically, the licensee proposed elimination of the humidity control function of the containment purge (VP) system humidistats by suggesting the following changes to SR 4.6.3.2 and 4.9.4.1:

SR 4.6.3.2

Deletion of the requirement for periodic verification of VP isolation on high relative humidity (RH) isolation test signal. The subject verification requirement is worded as follows in the existing TS:

"d. Verifying that on a High Relative Humidity (≥70%) isolation test signal, each upper and lower containment purge supply and exhaust valve actuates to its isolation position."

SR 4.9.4.1

Revision of the existing SR which is given below

"4.9.4.1 Each of the above required containment building penetrations shall be determined to be either in its closed/isolated condition or exhausting through an OPERABLE Reactor Building Containment Purge System with the capability of being automatically isolated upon heater failure within 72 hours prior to the start of and at least once per 7 days during CORE ALTERATIONS or movement of irradiated fuel in the containment building by:

a. Verifying the penetrations are in their closed/isolated condition,

or

b. Verifying the upper and lower containment purge supply and exhaust valves close upon a High Relative Humidity test signal."

as follows:

"4.9.4.1 Each of the above required containment building penetrations shall be determined to be either in its closed/isolated condition or exhausting through an OPERABLE Reactor Building Containment Purge System within 72 hours prior to the start of and at least once per 7 days during CORE ALTERNATIONS or movement of irradiated fuel in the containment building by:

a. Verifying the penetrations are in their closed/isolated condition,

or

b. Exhausting through an OPERABLE Reactor Building Containment Purge System."

Contingent upon NRC approval of the above proposed TS change, the licensee has planned to implement a plant modification involving VP system control wiring changes to remove the humidistats from the control circuits for both units. The licensee provided justification for the proposed TS changes. The staff's evaluation of the proposed TS changes is given below.

2.0 EVALUATION

The VP system filtration units include electric duct heaters located upstream of the filter trains. These heaters raise the temperature of the air stream entering the carbon adsorber in the filter train to limit the relative humidity (RH) of the air stream to less than 70 percent. The original basis for limiting the RH of the influent air stream to less than 70 percent by using the heaters was to assure that the adsorber would perform with removal efficiencies for radioiodine in elemental and organic forms no less than what were used for these forms in the design basis accidental analysis. As stated in the January 27, 1994, licensee's submittal, the original basis for the humidistats was to ensure that the VP system filter trains operated within the TS limits, i.e., the RH for the air stream entering the adsorber was $\leq$ 70%. The humidistats ensured the above basis was met through their control function which would result in automatic termination of the VP system operation when the humidistats would sense RH $\geq$ 70% in the air stream entering the adsorber, indicating a possible heater failure.

Technical Specification Amendment Nos. 90 and 84 to TS 3/4.9.4 for Units 1 and 2, respectively, revised carbon adsorber testing requirements to 95% RH equilibrium conditions by incorporating carbon adsorber testing procedures in accordance with ASTM D3803-1989. The subject procedure is a stringent carbon adsorber testing procedure that assumes no heater to limit the RH of the influent air stream through the carbon adsorber test sample to less than 70%. These tests are conducted periodically to validate the iodine removal efficiencies used in the design basis accident analysis. The revised TS thus allow the carbon adsorbers to experience RH levels higher than 70% and still remain within their analyzed conditions. Since the design basis filter efficiencies can be met for the VP systems using a test method that assumes no heaters, the above TS amendments include "ACTION" statements to imply that the VP system operability no longer depends upon heater operability. However, to

provide additional margin to carbon adsorber performance, the amended TS include SR to ensure heater operability. Further, the amended TS include "ACTION" statements which call for restoring an inoperable heater to operable status within 7 days or file a special report within 30 days specifying the reason for heater inoperability and planned actions to return it to operable status.

As justified in the licensee's submittal dated January 27, 1994, the revised carbon adsorber SR and heater ACTION statements per TS Amendment Nos. 90 and 84 for Units 1 and 2, have effectively precluded the control function served by the VP system humidistats and are, furthermore, a logical follow-up of the already NRC approved TS Amendment Nos. 90 and 84 for Units 1 and 2, respectively. It should also be noted that the proposed TS changes do not impact the isolation of the VP system on high radiation signal.

Based on the above findings, the staff concludes that the licensee's proposed changes to SR 4.6.3.2 and 4.9.4.1 for Units 1 and 2 TS 3/4.6.3 and 3/4.9.4, as shown in the licensee's January 27, 1994, submittal, are acceptable.

3.0 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.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change surveillance requirements. 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 (59 FR 10005 dated March 2, 1994). 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.

5.0 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: T. Chandrasekaran

Date: May 25, 1994