

June 25, 2007

Mr. J. R. Morris
Site Vice President
Catawba Nuclear Station
Duke Power Company LLC
4800 Concord Road
York, SC 29745

SUBJECT: CATAWBA NUCLEAR STATION, UNITS 1 AND 2, ISSUANCE OF
AMENDMENTS REGARDING EMERGENCY DIESEL GENERATOR TESTING
(TAC NOS. MD3217 AND MD3218)

Dear Mr. Morris:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 236 to Renewed Facility Operating License NPF-35 and Amendment No. 232 to Renewed Facility Operating License NPF-52 for the Catawba Nuclear Station, Units 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated June 5, 2006, as supplemented April 4, 2007.

The amendments revise TS 3.8.1, "AC Sources - Operating," surveillance requirement (SR) 3.8.1.13. The changes revise the SR 3.8.1.13 and its associated Bases to state that the SR only verifies that non-emergency diesel generator (DG) trips are bypassed. The licensee stated that this change is based upon and consistent with Industry Technical Specification Task Force (TSTF), Standard TS Traveler, TSTF-400-A, Revision 1, "Clarify Surveillance Requirement on Bypass of DG Automatic Trips."

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,

/RA/

John Stang, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-413 and 50-414

Enclosures:

1. Amendment No. 236 to NPF-35
2. Amendment No. 232 to NPF-52
3. Safety Evaluation

cc w/encls: See next page

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*SE transmitted by memo dated

NRR-058

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DUKE POWER COMPANY LLC
NORTH CAROLINA ELECTRIC MEMBERSHIP CORPORATION
SALUDA RIVER ELECTRIC COOPERATIVE, INC.
DOCKET NO. 50-413
CATAWBA NUCLEAR STATION, UNIT 1
AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 236
Renewed 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) Renewed Facility Operating License No. NPF-35 filed by the Duke Power Company LLC, acting for itself, North Carolina Electric Membership Corporation and Saluda River Electric Cooperative, Inc. (licensees), dated June 5, 2006 as supplemented April 4, 2007, 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 Renewed Facility Operating License No. NPF-35 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 236, which are attached hereto, are hereby incorporated into this license. Duke Power Company LLC shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Evangelos C. Marinos, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to License No. NPF-35
and the Technical Specifications

Date of Issuance: June 25, 2007

DUKE POWER COMPANY LLC
NORTH CAROLINA MUNICIPAL POWER AGENCY NO. 1
PIEDMONT MUNICIPAL POWER AGENCY
DOCKET NO. 50-414
CATAWBA NUCLEAR STATION, UNIT 2
AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 232
Renewed 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) Renewed Facility Operating License No. NPF-52 filed by the Duke Power Company LLC, acting for itself, North Carolina Municipal Power Agency No. 1 and Piedmont Municipal Power Agency (licensees), dated June 5, 2006 as supplemented April 4, 2007, 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 Renewed Facility Operating License No. NPF-52 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 232, which are attached hereto, are hereby incorporated into this license. Duke Power Company LLC shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Evangelos C. Marinos, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to License No. NPF-52
and the Technical Specifications

Date of Issuance: June 25, 2007

ATTACHMENT TO LICENSE AMENDMENT NO. 236
RENEWED FACILITY OPERATING LICENSE NO. NPF-35
DOCKET NO. 50-413
AND LICENSE AMENDMENT NO. 232
RENEWED FACILITY OPERATING LICENSE NO. NPF-52
DOCKET NO. 50-414

Replace the following pages of the Renewed Facility Operating Licenses and the Appendix A Technical Specifications (TSs) with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove

License Pages

NPF-35 page 4
NPF-52 page 4

TSs

3.8.1-11

Insert

License Pages

NPF-35 page 4
NPF-52 page 4

TSs

3.8.1-11

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO
AMENDMENT NO. 236 TO RENEWED FACILITY OPERATING LICENSE NPF-35
AND
AMENDMENT NO. 232 TO RENEWED FACILITY OPERATING LICENSE NPF-52
DUKE POWER COMPANY LLC
CATAWBA NUCLEAR STATION, UNITS 1 AND 2
DOCKET NOS. 50-413 AND 50-414

1.0 INTRODUCTION

By application dated June 5, 2006 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML061640346), as supplemented by letter dated April 4, 2007 (ADAMS Accession No. ML071010132), Duke Power Company LLC (Duke, the licensee), requested changes to the Technical Specifications (TSs) for the Catawba Nuclear Station, Units 1 and 2 (Catawba 1 and 2). The supplement dated April 4, 2007, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the Nuclear Regulatory Commission (NRC) staff's original proposed no significant hazards consideration determination as published the *Federal Register* on December 5, 2006 (71 FR 70555).

The proposed changes would revise TS 3.8.1, "AC Sources - Operating," surveillance requirement (SR) 3.8.1.13. The proposed changes would revise the SR 3.8.1.13 and its associated Bases to state that the SR only verifies that non-emergency diesel generator (DG) trips are bypassed. The licensee stated that this change is based upon and consistent with Industry Technical Specification Task Force (TSTF), Standard TS Traveler, TSTF-400-A, Revision 1, "Clarify Surveillance Requirement on Bypass of DG Automatic Trips."

2.0 REGULATORY EVALUATION

The regulatory requirements which the NRC staff applied in its review of the application include:

Title 10 of the Code of Federal Regulations (10 CFR), Part 50, Appendix A, General Design Criteria (GDC) 17 requires, in part, that nuclear power plants have an onsite and offsite electric power system to permit the functioning of structures, systems and components important to safety. The onsite system is required to have sufficient independence, redundancy and testability to perform its safety function, assuming a single failure, and the offsite system is required to be supplied by two independent circuits. In addition, these criteria require

provisions to minimize the probability of losing electric power from the remaining electric power supplies as the result of loss of power from the unit, the offsite transmission network, or the onsite power supplies.

GDC-18, "Inspection and testing of electric power systems," requires that electric power systems that are important to safety must be designed to permit appropriate periodic inspection and testing.

Section 50.36, "Technical Specifications," of Part 50 requires TS with Limiting Condition of Operations (LCOs) and SRs for equipment that is required for safe operation of the facility.

3.0 TECHNICAL EVALUATION

Currently, SR 3.8.1.13 reads:

"Verify each DG's automatic trips are bypassed on actual or simulated loss of voltage signal on the emergency bus concurrent with an actual or simulated engineered safety feature (ESF) actuation signal except:

- a. Engine overspeed;
- b. Generator differential current;
- c. Low -low lube oil pressure; and
- d. Voltage-controlled overcurrent relay scheme."

The licensee proposed to change SR 3.8.1.13 as follows:

"Verify each DG's non-emergency automatic trips are bypassed on actual or simulated loss of voltage signal on the emergency bus concurrent with an actual or simulated engineered safety feature ESF actuation signal."

The licensee stated that the current SR 3.8.1.13 and Bases imply that two tests are required: 1) verification that non-emergency trips are bypassed, and 2) verification that emergency trips are not bypassed. This is not correct and has led to confusion at nuclear power plants implementing the SR. Only the first verification is the correct intent of this SR. In order to address this confusion the nuclear industry's TSTF proposed TSTF-400-A, Revision 1, "Clarify Surveillance Requirement on Bypass of DG Automatic trips." The NRC approved TSTF-400-A, Revision 1 by letter and a safety evaluation report dated November 13, 2004.

The NRC staff finds that Branch Technical Position (BTP) Instrumentation and Control System Branch (ICSB) -17, "Diesel Generator Protective Trip Circuit Bypasses," was replaced in 1981 by a position established in Regulatory Guide (RG) 1.9, "Selection, Design, Qualification, and Testing of Emergency Diesel Generator Units Used as Class 1E Onsite Electrical Power Systems at Nuclear Power Plants." Section 2.2.12 of RG 1.9, Rev. 3, only requires verification that the non-critical trips (e.g., jacket water temperature high, engine bearing temperature high) are bypassed and does not require verification that the critical trips (e.g., engine over-speed, generator differential current) are not bypassed. This test is intended to verify that the bypass function is OPERABLE so that a spurious actuation of a non-critical trip does not trip the DG during an emergency. Testing to verify that critical DG trips are not bypassed is not required to

satisfy the requirements of 10 CFR 50.36(c)(3).

The NRC staff was concerned about removing testing of DG critical trips. Generic Letter (GL) 96-01 requires that all portions of the logic circuitry, including the parallel logic, interlocks, bypasses and inhibit circuits are adequately covered in the surveillance procedures to fulfill the requirements. In a request for additional information, the NRC staff asked the licensee to discuss how the NRC staff can be assured that these emergency trips will function (trips DG when the condition is present in order to avert substantial damage to the DG unit and do not trip when condition is not present) unless these trips are periodically tested. In response to the above concern, the April 4, 2007, supplement stated that currently, DG emergency automatic trips are tested periodically per the station periodic maintenance program. The licensee provided details regarding testing and calibration of emergency trips for Catawba 1 and 2. The NRC staff finds that DG emergency automatic trips are tested at least once every 18 months to ensure proper functioning. The licensee committed to add the statement: "DG emergency automatic trips will be tested periodically per the station periodic maintenance program" to the end of the first paragraph of the revised TS Bases SR 3.8.1.13 for Catawba and McGuire. Based on the above, the NRC staff's concern is resolved.

The licensee is making an editorial deviation from TSTF-400-A in that this amendment request uses the term "emergency" trips and "non-emergency" trips in lieu of "critical" trips and "non-critical" trips for Catawba 1 and 2. This is being done for human factors considerations because both stations use these terms in operator training and on labeling on the actual DG equipment. The NRC staff finds that this deviation does not affect the technical aspect of this proposed change and, therefore, is acceptable.

4.0 SUMMARY

The NRC staff concludes that the proposed change will have no adverse effect on the availability or operation of the associated equipment and there will have no adverse effect on plant operation. The proposed changes are consistent with the guidance in RG 1.9 and NUREG 1434. The staff also concludes that the proposed changes to the SRs do not affect Catawba 1 and 2 compliance with the requirements of GDC 17 and GDC 18 as described in the licensee's Updated Final Safety Analysis and therefore, the proposed change is acceptable.

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 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 (71 FR 70555). The amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Accordingly,

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: A. Pal

Date: June 25, 2007