July 5, 2006

Mr. Bruce H. Hamilton
Vice President, Oconee Site
Duke Energy Corporation
7800 Rochester Highway
Seneca, SC 29672

SUBJECT: OCONEE NUCLEAR STATION, UNITS 1, 2 AND 3 RE: ISSUANCE OF AMENDMENTS REGARDING LCT TESTING(TAC NOS. MC5532, MC5533, AND MC5534)

Dear Mr. Hamilton:

The Nuclear Regulatory Commission has issued the enclosed Amendment Nos. 352, 354, and 353 to Renewed Facility Operating Licenses DPR-38, DPR-47, and DPR-55, respectively, for the Oconee Nuclear Station, Units 1, 2, and 3. The amendments consist of changes to the Technical Specifications in response to your application dated January 5, 2005, as supplemented November 21, 2005.

The amendments revise the Technical Specification (TS) 5.5.19 associated with the Lee Combustion Turbine (LCT) testing program. TS 5.5.19.b required verification that an LCT can supply the equivalent of one Unit's maximum safeguard loads, plus two Units' Mode 3 loads when connected to the system grid every 12 months. In the enclosed amendments, this requirement is more clearly specified as "verify an LCT can supply equivalent of one unit's Loss of Coolant Accident (LOCA) loads plus two units' Loss of Offsite Power (LOOP) loads when connected to system grid every 12 months." The amendment also revises TS 5.5.19.c and TS Surveillance Requirement 3.8.1.9 for consistency.

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/

Leonard N. Olshan, Sr. Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-269, 50-270, and 50-287

Enclosures:
1. Amendment No. 352 to DPR-38
2. Amendment No. 354 to DPR-47
3. Amendment No. 353 to DPR-55
4. Safety Evaluation

cc w/encls: See next page

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4. Safety Evaluation

DISTRIBUTION: See next page

Package Number: ML061210178 Tech Spec Number: ML061860544
Amendment Number: ML050910211 NRR-058

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NAME	LOlshan	CHawes	MYoung	EBrown	TBoyce	EMarinos
DATE	6/21/06	4/13/05	6/14/06	3/23/06	3/28/05	6/28/06

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SUBJECT: OCONEE NUCLEAR STATION, UNITS 1, 2 AND 3 - ISSUANCE OF AMENDMENTS NOS., 352, 354, 353 RE: LCT TESTING (TAC NOS. MC5532, MC5533 AND MC5534)

Date: July 5,

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DUKE ENERGY CORPORATION

DOCKET NO. 50-269

OCONEE NUCLEAR STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 352
Renewed License No. DPR-38

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment to the Oconee Nuclear Station, Unit 1 (the facility) Renewed Facility Operating License No. DPR-38 filed by the Duke Energy Corporation (the licensee) dated January 5, 2005, as supplemented November 21, 2005, 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 3.B of Renewed Facility Operating License No. DPR-38 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 352, 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 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:
Technical Specification
Changes

Date of Issuance: July 5, 2006

DUKE ENERGY CORPORATION

DOCKET NO. 50-270

OCONEE NUCLEAR STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 354
Renewed License No. DPR-47

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment to the Oconee Nuclear Station, Unit 2 (the facility) Renewed Facility Operating License No. DPR-47 filed by the Duke Energy Corporation (the licensee) dated January 5, 2005, as supplemented November 21, 2005, 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 3.B of Renewed Facility Operating License No. DPR-47 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 354, 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 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:
Technical Specification
Changes

Date of Issuance: July 5, 2006

DUKE ENERGY CORPORATION

DOCKET NO. 50-287

OCONEE NUCLEAR STATION, UNIT 3

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 353
Renewed License No. DPR-55

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment to the Oconee Nuclear Station, Unit 3 (the facility) Renewed Facility Operating License No. DPR-55 filed by the Duke Energy Corporation (the licensee) dated January 5, 2005, as supplemented November 21, 2005, 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 3.B of Renewed Facility Operating License No. DPR-55 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 353, 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 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:
Technical Specification
Changes

Date of Issuance: July 5, 2006

ATTACHMENT TO LICENSE AMENDMENT NO. 352

RENEWED FACILITY OPERATING LICENSE NO. DPR-38

DOCKET NO. 50-269

AND

TO LICENSE AMENDMENT NO. 354

RENEWED FACILITY OPERATING LICENSE NO. DPR-47

DOCKET NO. 50-270

AND

TO LICENSE AMENDMENT NO. 353

RENEWED FACILITY OPERATING LICENSE NO. DPR-55

DOCKET NO. 50-287

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

Remove	Insert
License Pages	License Pages
License No. DPR,-38, Page 3	License No. DPR,-38, Page 3
License No. DPR,-47, Page 3	License No. DPR,-47, Page 3
License No. DPR,-55, Page 3	License No. DPR,-55, Page 3
TS Pages	TS Pages
3.8.1-15	3.8.1-15
5.0-25	5.0-25

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 352 TO RENEWED FACILITY OPERATING LICENSE DPR-38

AMENDMENT NO. 354 TO RENEWED FACILITY OPERATING LICENSE DPR-47

AND AMENDMENT NO. 353 TO RENEWED FACILITY OPERATING LICENSE DPR-55

DUKE ENERGY CORPORATION

OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3

DOCKET NOS. 50-269, 50-270, AND 50-287

1.0 INTRODUCTION

By letter dated January 5, 2005, Duke Energy Corporation (the licensee) submitted a request for changes to the Oconee Nuclear Station, Units 1, 2, and 3, Technical Specifications (TS). The requested changes would revise TS 5.5.19, which is associated with the Lee Combustion Turbine (LCT) testing program. TS 5.5.19.b currently requires verification that an LCT can supply the equivalent of one Unit's maximum safeguard loads, plus two Units' Mode 3 loads when connected to the system grid every 12 months. In the proposed amendments, this requirement would be more clearly specified as "verify an LCT can supply equivalent of one unit's Loss of Coolant Accident (LOCA) loads plus two units' Loss of Offsite Power (LOOP) loads when connected to system grid every 12 months." The proposed amendments also would revise TS 5.5.19.c and TS Surveillance Requirements 3.8.19 for consistency.

2.0 REGULATORY EVALUATION

Section 3.1 of the Oconee Updated Final Safety Analysis Report (UFSAR) states, "The principal design criteria for Oconee were developed in consideration of the seventy General Design Criteria for Nuclear Power Plant Construction Permits proposed by the Atomic Energy Commission in a proposed rule-making published for 10 CFR Part 50 in the Federal Register of July 11, 1967." The criterion that applies to this amendment request is Criterion 39, Emergency Power for Engineered Safety Features. Criterion 39 is discussed in Section 3.1.39 of the UFSAR; Criterion 39 states:

> Alternate power systems shall be provided and designed with adequate independency, redundancy, capacity, and testability to permit functioning required of the engineered safety features. As a minimum, the on-site power system and the off-site power system shall each, independently, provide this capacity assuming a failure of a single active component in each power system.

Section 8.2.1.4 of the UFSAR states:

> Whenever there is inadequate power from the generating units, the 230 kV switching station and the hydro units, power is available to the standby buses either directly from the 100 kV Central Tie Substation or from Lee Steam Station via a 100 kV transmission line connected to 12/16/20 MVA Transformer CT5 located on the opposite side of the station from the 230 kV facilities. This section also states, "located at Lee Steam Station are three 44.1 MVA combustion turbines." One of these three turbines can be started in one hour and connected to the 100 kV line. Transformer CT5 is sized to carry all the engineered safeguards auxiliaries of one unit plus the shutdown loads of the other two units.

Table 8-1 of the UFSAR provides a list of loads that automatically start after a loss-of-coolant accident or loss of offsite power, and the loads required to mitigate the event.

The licensing basis for the LCTs is contained in the "Safety Evaluation of the Duke Power Company Oconee Nuclear Power Station Unit 1," issued December 29, 1970. This safety evaluation refers to the LCTS as the gas turbines and, in Section 8.4, it states:

> In evaluating these power sources, we have considered the gas turbine as a temporary substitute power source for use primarily during the periods when the hydro units are not available. The applicant has estimated these periods to be approximately 24 hours each year plus 4 days once every 10 years when the common penstock will be drained for inspection and maintenance. During these periods the gas turbine will be run at rated speed, with no load, and will be directly connected, through the Oconee 100-kV switchyard over the isolated line, to the standby buses for automatic selection in the event that the 230-kV power source is lost.

Section 8.0 of the "Safety Evaluation of the Oconee Nuclear Power Station Units 2 and 3," issued July 6, 1973, extends the Unit 1 evaluation to Units 2 and 3.

3.0 TECHNICAL EVALUATION

Prior to Amendment 232, 232, 231, issued September 4, 1998, TS 4.6.8 stated, "Annually, it shall be demonstrated that a Lee station combustion turbine can be started and carry the equivalent of the maximum safeguards load of one Oconee unit plus the safe shutdown loads of two Oconee units on the system grid." Amendment 232, 232, 231 changed the terminology "safe shutdown loads" to "hot shutdown loads."

Hot shutdown was defined as the reactor subcritical and the average reactor coolant temperature (TAVG) greater than 525 °F. In the conversion to the Improved Technical Specifications (ITS), Amendment 300, 300, 300, issued December 16, 1998, MODE 3 was determined, in general, to best describe the characteristics for hot shutdown; MODE 3 in the ITS is defined as the reactor subcritical and TAVG equal to or greater than 250 °F. Therefore, the terminology "hot shutdown loads" was changed to "MODE 3 loads" in the ITS conversion, and the requirement was relocated from TS 4.6.8 to TS 5.5.19.b.

As the plant is heating up to full power and as TAVG is increasing above 250 °F, while still in MODE 3, additional loads are added that are not needed to safely shut down the plant, and therefore, are beyond the design basis for the LCTs. These loads include the condensate booster pumps and the reactor coolant pumps. The terminology “MODE 3 loads” in TS 5.5.19 could be misconstrued to include these additional loads. Therefore, the licensee has proposed to clarify TS 5.5.19 by using the terminology “Loss of Offsite Power (LOOP) loads,” instead of “MODE 3 loads.” To be consistent with the terminology used in the UFSAR, the licensee also proposed to replace “one unit’s maximum safeguards loads” with “one unit’s Loss of Coolant Accident (LOCA) loads.”

The licensee’s submittal contained a typographical error in the replacement TS pages. Where the TSs refer to Loop loads for the other two units, it stated “two unit’s” Loop loads. This is singular and incorrect. The TS pages issued with these amendments corrected this error by stating “two units’.”

The NRC staff finds these proposed changes to be acceptable since the terminology is consistent with the design and licensing basis for the LCTs.

4.0 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.

5.0 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
(70 FR 7764). 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.

6.0 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: L. Olshan

Date: July 5, 2006

Oconee Nuclear Station, Units 1, 2, and 3

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