

September 6, 2001

Mr. William R. McCollum, Jr.
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 (TAC NOS. MB1318, MB1317, AND MB1320)

Dear Mr. McCollum:

The Nuclear Regulatory Commission has issued the enclosed Amendment Nos. 319 , 319 , and 319 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 February 28, 2001, as supplemented June 27, 2001.

The amendments add new Technical Specification 3.3.28 and Bases B 3.3.28 governing the addition of the low pressure service water standby pump automatic start circuitry.

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/

David E. LaBarge, Senior Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

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

Enclosures:

1. Amendment No. 319 to DPR-38
2. Amendment No. 319 to DPR-47
3. Amendment No. 319 to DPR-55
4. Safety Evaluation

cc w/encls: See next page

Mr. William R. McCollum, Jr.
Vice President, Oconee Site
Duke Energy Corporation
P. O. Box 1439
Seneca, SC 29679

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cc w/encls: See next page

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DUKE ENERGY CORPORATION

DOCKET NO. 50-269

OCONEE NUCLEAR STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 319
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 February 28, 2001, as supplemented June 27, 2001, 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. 319 , 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 before the end of the Oconee Unit 3 End of Cycle 19 Refueling Outage.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA by Gordon E. Edison for/

Richard L. Emch, Jr., Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: September 6, 2001

DUKE ENERGY CORPORATION

DOCKET NO. 50-270

OCONEE NUCLEAR STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 319
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) February 28, 2001, as supplemented June 27, 2001, 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. 319 , 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 before the end of the Oconee Unit 3 End of Cycle 19 Refueling Outage.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA by Gordon E. Edison for/

Richard L. Emch, Jr., Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: September 6, 2001

DUKE ENERGY CORPORATION

DOCKET NO. 50-287

OCONEE NUCLEAR STATION, UNIT 3

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 319
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) February 28, 2001, as supplemented June 27, 2001, 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. 319 , 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 before the end of the Oconee Unit 3 End of Cycle 19 Refueling Outage.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA by Gordon E. Edison for/

Richard L. Emch, Jr., Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: September 6, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 319
RENEWED FACILITY OPERATING LICENSE NO. DPR-38
DOCKET NO. 50-269
AND
TO LICENSE AMENDMENT NO. 319
RENEWED FACILITY OPERATING LICENSE NO. DPR-47
DOCKET NO. 50-270
AND
TO LICENSE AMENDMENT NO. 319
RENEWED FACILITY OPERATING LICENSE NO. DPR-55
DOCKET NO. 50-287

Replace the following pages of the 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

LTOP1

LTOP3

ii

iii

iv

3.3.28-1

Bases LTOP1

Bases LTOP7

Bases page i

Bases page ii

Insert

LTOP1

LTOP3

ii

iii

iv

v

3.3.28-1

Bases LTOP1

Bases LTOP7

Bases page i

Bases page ii

B 3.3.28-1

B 3.3.28-2

B 3.3.28-3

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO
AMENDMENT NO. 319 TO RENEWED FACILITY OPERATING LICENSE DPR-38
AMENDMENT NO. 319 TO RENEWED FACILITY OPERATING LICENSE DPR-47
AND AMENDMENT NO. 319 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 February 28, 2001, as supplemented June 27, 2001, 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 add TS 3.3.28 and Bases B 3.3.28 governing low pressure service water (LPSW) standby pump automatic start circuitry. The supplement dated June 27, 2001, provided clarifying information that did not change the scope of the February 28, 2001, application nor the initial proposed no significant hazards consideration determination.

2.0 BACKGROUND

The purpose of the LPSW standby pump automatic start circuitry is to start the LPSW standby pump if an operating LPSW pump fails to restart following a loss-of-offsite power (LOOP) event and LPSW header pressure does not return to normal values within a predetermined amount of time. The automatic start signal would also start the LPSW standby pump during normal operation if LPSW header pressure falls below an established setpoint and remains there for a predetermined amount of time.

The LPSW system is required to support operability of high pressure injection (HPI) pumps and motor driven emergency feedwater (MDEFDW) pumps during a LOOP event by supplying cooling water to the HPI pump motor bearing coolers and MDEFDW pump motors.

For Units 1 and 2, two LPSW pumps are normally operating, with the third pump in standby. During a LOOP, both operating pumps would trip and would then restart when power is restored. The worst-case single failure scenario is failure of one LPSW pump to restart following a LOOP, which would leave only one LPSW pump operating. During periods of high lake water temperature, one LPSW pump cannot supply adequate flow and would experience inadequate net positive suction head, which could lead to pump damage. As currently

configured, this condition would exist until operators recognized the condition and manually started the standby LPSW pump from the control room.

For Unit 3, one LPSW pump normally operates with the second LPSW pump in standby. During a LOOP, the operating pump trips and would normally restart following restoration of power. If the operating pump failed to restart following a LOOP, no LPSW pumps would remain operating. As currently configured, this condition would exist until operators recognized the condition and manually started the standby pump.

3.0 EVALUATION

The proposed modification will modify the start circuitry of the LPSW pumps on each unit to include an auto-start signal. The function of the auto-start will be to automatically start the LPSW standby pump if an operating pump fails to restart following a LOOP event and LPSW header pressure does not return to normal values. The auto-start circuit will provide a predetermined time delay before starting the standby pump to determine if LPSW header pressure has returned to acceptable values. The auto-start signal will also start the standby pump during normal operation if LPSW header pressure falls below an established setpoint and remains there for a predetermined length of time. The auto-start circuit will consist of under-voltage relays that monitor the main feeder bus voltage, pressure switches that monitor LPSW header pressure, and auxiliary relays to provide the signal to start the LPSW standby pump. Switches will be used to disable the auto-start circuit for testing of the auto-start circuit. Computer points and status alarms will be provided for testing purposes.

The proposed new TS Section 3.3.28 requires entry into Condition A if a LPSW standby pump auto-start circuit is not operable. Condition A requires that the LPSW standby pump auto-start circuit be returned to operable status within 7 days. If the completion time of Condition A cannot be met, then entry into Condition B is required. Condition B requires that the affected units be in Mode 3 within 12 hours and Mode 5 within 60 hours.

The LPSW standby pump auto-start circuitry is of a low safety significance as compared to other mitigation strategies. Diverse methods for mitigating a LOOP/single failure scenario are: a) operator action to start the LPSW standby pump, b) use of the turbine driven emergency feedwater pump and high pressure service water to HPI pump motor bearing coolers upon loss of LPSW, and c) the standby shutdown facility providing reactor coolant system inventory control and decay heat removal. Therefore, the 7 day allowed outage time for Condition A is acceptable.

The proposed new TS Section 3.3.28 also requires channel functional testing and channel calibration of the LPSW standby pump auto-start circuitry. The channel function test and channel calibration are required to be performed on an 18-month frequency.

The LPSW standby pump auto-start circuitry channel functional test 18-month frequency is based on operating experience and consistency with typical industry refueling cycles. This circuitry has a demonstrated instrument reliability over an 18-month interval such that the instrument is not affected by drift. Testing on an 18-month frequency would also reduce mechanical wear on the LPSW pump and associated equipment. Based on this, the 18-month frequency for the channel functional test and the channel calibration is acceptable.

4.0 CONCLUSION

Based on the above review and the licensee's justification for TS changes, the staff concludes that the addition of TS 3.3.28 and Bases B 3.3.28 governing LPSW standby pump automatic start circuitry follows the format of NUREG-1430, "Standard Technical Specification Babcock and Wilcox Plants" and is consistent with NRC regulations and the guidelines in Chapter 7 of the Standard Review Plan. The staff, therefore, finds the proposed TS changes 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 requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and 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 (66 FR 15917). 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: Barry S. Marcus

Date: September 6, 2001

Oconee Nuclear Station

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