

May 19, 2005

Mr. Ronald A. Jones  
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. MC5892, MC5893, AND MC5894)

Dear Mr. Jones:

The Nuclear Regulatory Commission has issued the enclosed Amendment Nos. 345, 347, and 346 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 14, 2005.

The amendments revise Technical Specification Surveillance Requirement 3.3.7.1 to extend the frequency of the channel functional test for the Engineered Safeguards Protective System digital actuation logic channels from once every 31 days to once every 92 days.

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, 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. 345 to DPR-38
2. Amendment No. 347 to DPR-47
3. Amendment No. 346 to DPR-55
4. Safety Evaluation

cc w/encls: See next page

May 19, 2005

Mr. Ronald A. Jones  
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. MC5892, MC5893, AND MC5894)

Dear Mr. Jones:

The Nuclear Regulatory Commission has issued the enclosed Amendment Nos. 345, 347, and 346 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 14, 2005.

The amendments revise Technical Specification Surveillance Requirement 3.3.7.1 to extend the frequency of the channel functional test for the Engineered Safeguards Protective System digital actuation logic channels from once every 31 days to once every 92 days.

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, 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. 345 to DPR-38
2. Amendment No. 347 to DPR-47
3. Amendment No. 346 to DPR-55
4. Safety Evaluation

cc w/encls: See next page

DISTRIBUTION: See next page

Package Number: ML051170077  
Amendment No.: ML051020054

Tech Spec: ML051470213

NRR-058

OFFICE	PDII-1/PM	PDII-1/LA	EEIB/SC	OGC	PDII-1/SC
NAME	LOlshan	CHawes	EMarinos	KKannler	EMarinos
DATE	05/ 04 /05	05/ 04 /05	03/28/05	05/ 13 /05	05/ 18 /05

**OFFICIAL RECORD COPY**

SUBJECT: OCONEE NUCLEAR STATION, UNITS 1, 2 AND 3 RE: ISSUANCE OF AMENDMENTS (TAC NOS. MC5892, MC5893, AND MC5894)

Date: May 19, 2005

DISTRIBUTION:

PUBLIC

PDII-1 R/F

RidsNrrDlpmLpdii

RidsNrrDlpmLpdii1

RidsNrrPMLOlshan

RidsNrrPMRMartin

RidsNrrLACHawes

RidsOGCRp

RidsAcrcAcnwMailCenter

Ghill (6)

TBoyce

RidsRgn2MailCenter

RidsNrrDlpmDpr

DUKE ENERGY CORPORATION

DOCKET NO. 50-269

OCONEE NUCLEAR STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 345  
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 14, 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. 345, 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 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Evangelos C. Marinos, Chief, Section 1  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Technical Specification  
Changes

Date of Issuance: May 19, 2005

DUKE ENERGY CORPORATION

DOCKET NO. 50-270

OCONEE NUCLEAR STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 347  
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 February 14, 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. 347, 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 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Evangelos C. Marinos, Chief, Section 1  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Technical Specification  
Changes

Date of Issuance: May 19, 2005

DUKE ENERGY CORPORATION

DOCKET NO. 50-287

OCONEE NUCLEAR STATION, UNIT 3

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 346  
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 February 14 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. 346, 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 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Evangelos C. Marinos, Chief, Section 1  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Technical Specification  
Changes

Date of Issuance: May 19, 2005

ATTACHMENT TO LICENSE AMENDMENT NO. 345  
RENEWED FACILITY OPERATING LICENSE NO. DPR-38  
DOCKET NO. 50-269  
AND  
TO LICENSE AMENDMENT NO. 347  
RENEWED FACILITY OPERATING LICENSE NO. DPR-47  
DOCKET NO. 50-270  
AND  
TO LICENSE AMENDMENT NO. 346  
RENEWED FACILITY OPERATING LICENSE NO. DPR-55  
DOCKET NO. 50-287

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

Remove

3.3.7-2  
B 3.3.7-4

Insert

3.3.7-2  
B 3.3.7-4

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO  
AMENDMENT NO. 345 TO RENEWED FACILITY OPERATING LICENSE DPR-38  
AMENDMENT NO. 347 TO RENEWED FACILITY OPERATING LICENSE DPR-47  
AND AMENDMENT NO. 346 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 14, 2005, (Agencywide Documents Access and Management System, Accession No. ML050540572) 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 Surveillance Requirement 3.3.7.1 to extend the frequency of the channel functional test for the Engineered Safeguards Protective System (ESPS) digital actuation logic channels from once every 31 days to once every 92 days.

## 2.0 REGULATORY EVALUATION

The Commission's regulatory requirements related to TS changes are set forth in 10 CFR 50.36. Specifically, 10 CFR 50.36(c)(3) which requires that the TS contains requirements to test, calibrate, or inspect to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

The principal design criteria for Oconee was 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 license amendment request (LAR) is Criterion 25, "Demonstration of Function Operability of Protection Systems (Category B)," which states, "Means shall be included for testing Protection Systems while the reactor is in operation to demonstrate that no failure or loss of redundancy has occurred."

## 3.0 TECHNICAL EVALUATION

By letter dated January 3, 1994, the NRC approved Babcock and Wilcox (B&W) Owners Group (B&WOG) Topical Report BAW-10182, "Justification for Increasing Engineered Safety Features Actuation System (ESFAS) On-Line Test Intervals," dated February 1994. This topical report

provides generic justifications for extending the channel functional surveillance test interval for ESFAS instrumentation channels from 31 days to 92 days for the B&W plants that participated in the B&WOG program. (At Oconee, ESFAS is called ESPS.) Oconee participated in this program and BAW-10182 specifically addressed the Oconee ESPS.

In accepting BAW-10182, the NRC staff stipulated that licensees that reference Topical Report BAW-10182 should (1) include a plant-specific analysis of setpoint drift for the extended surveillance interval to confirm the validity of the assumed analysis failure rates, (2) maintain onsite records showing actual setpoint calculations and information over at least the last 2 years, and (3) include a description of the current plant-specific setpoint methodology used to derive the safety margins.

The NRC staff finds that the LAR to extend the surveillance test interval from 31 days to 92 days for the Oconee Digital ESPS complies with the three requirements of the SE of the Topical Report BAW-10182. In the LAR for the digital ESPS the licensee stated, “[b]y design, there is no instrument drift associated with the digital subsystem.” Because BAW-10182 indicates that the digital ESPS includes logic buffer modules, trip logic modules, unit control modules, and output relays, the NRC staff concurs with licensee’s statement. The NRC staff, thus, concludes that because the digital systems are free from time-varying instrument drifts, the Oconee Digital ESPS complies with the first two requirements of the SE approving Topical Report BAW-10182. The NRC staff also finds that the digital ESPS complies with the third requirement; because the LAR does not result in any setpoint changes, the NRC staff did not require the licensee to submit a description of its current plant-specific setpoint methodology that was used to derive safety margins. In addition to concluding that the LAR complies with the three requirements, the NRC staff finds that Section 4.2 of Topical Report BAW-10182 addressed the failure rates and common mode failures of the Digital Subsystem Components and that the topical report established that the increase in core melt risk due to the extension of the ESFAS surveillance test interval from 31 days to 92 days does not significantly impact risk.

Upon finding that the licensee’s proposed TS change complies with the three NRC requirements stipulated in the SE for Topical Report BAW-10182, and after reviewing the topical report’s analysis and calculation methodologies evaluating the extension of the surveillance test for the digital ESPS from 31 days to 93 days, the NRC staff concludes that the proposed TS changes are acceptable.

#### 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 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 (70 FR 12745). 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: S. Mazumdar

Date: May 19, 2005

Oconee Nuclear Station, Units 1, 2, and 3

cc:

Ms. Lisa F. Vaughn  
Duke Energy Corporation  
Mail Code - PB05E  
422 S. Church St.  
P.O. Box 1244  
Charlotte, NC 28201-1244

Ms. Anne W. Cottingham, Esq.  
Winston and Strawn LLP  
1700 L St, NW  
Washington, DC 20006

Manager, LIS  
NUS Corporation  
2650 McCormick Dr., 3rd Floor  
Clearwater, FL 34619-1035

Senior Resident Inspector  
U.S. Nuclear Regulatory Commission  
7812B Rochester Highway  
Seneca, SC 29672

Mr. Henry Porter, Director  
Division of Radioactive Waste Management  
Bureau of Land and Waste Management  
Dept. of Health and Env. Control  
2600 Bull St.  
Columbia, SC 29201-1708

Mr. Michael A. Schoppman  
Framatome ANP  
1911 North Ft. Myer Dr.  
Suite 705  
Rosslyn, VA 22209

Mr. B. G. Davenport  
Regulatory Compliance Manager  
Oconee Nuclear Site  
Duke Energy Corporation  
ON03RC  
7800 Rochester Highway  
Seneca, SC 29672

Ms. Karen E. Long  
Assistant Attorney General  
NC Department of Justice  
P.O. Box 629  
Raleigh, NC 27602

Mr. R. L. Gill, Jr.  
Manager - Nuclear Regulatory  
Issues and Industry Affairs  
Duke Energy Corporation  
526 S. Church St.  
Mail Stop EC05P  
Charlotte, NC 28202

Mr. Richard M. Fry, Director  
Division of Radiation Protection  
NC Dept of Environment, Health, & Natural  
Resources  
3825 Barrett Dr.  
Raleigh, NC 27609-7721

Mr. Peter R. Harden, IV  
VP-Customer Relations and Sales  
Westinghouse Electric Company  
6000 Fairview Road  
12th Floor  
Charlotte, NC 28210

Mr. Henry Barron  
Group Vice President, Nuclear Generation  
and Chief Nuclear Officer  
P.O. Box 1006-EC07H  
Charlotte, NC 28201-1006