

April 28, 1999

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

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**SUBJECT: OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3 - ISSUANCE OF AMENDMENTS RE: POST ACCIDENT MONITORING (PAM) INSTRUMENTATION (TAC NOS. MA4876, MA4877, AND MA4878)**

Dear Mr. McCollum:

The Nuclear Regulatory Commission has issued the enclosed Amendment Nos. 304 , 304 , and 304 to 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 March 1, 1999.

The amendments revise the number of required channels shown in TS Table 3.3.8-1, "Post Accident Monitoring Instrumentation" for the Reactor Coolant System Hot Leg Temperature function from "2 per loop" to "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:

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. 304 to DPR-38
2. Amendment No. 304 to DPR-47
3. Amendment No. 304 to DPR-55
4. Safety Evaluation

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cc w/encls: See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 28, 1999

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Vice President, Oconee Site  
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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,

A handwritten signature in black ink, appearing to read "D. E. LaBarge".

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

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1. Amendment No. 304 to DPR-38
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3. Amendment No. 304 to DPR-55
4. Safety Evaluation

cc w/encls: See next page

Oconee Nuclear Station

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

DUKE ENERGY CORPORATION

DOCKET NO. 50-269

OCONEE NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 304  
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) Facility Operating License No. DPR-38 filed by the Duke Energy Corporation (the licensee) dated March 1, 1999, 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.

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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 Facility Operating License No. DPR-38 is hereby amended to read as follows:

**B. Technical Specifications**

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 304 , 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



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: April 28, 1999



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

DUKE ENERGY CORPORATION

DOCKET NO. 50-270

OCONEE NUCLEAR STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 304  
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) Facility Operating License No. DPR-47 filed by the Duke Energy Corporation (the licensee) dated March 1, 1999, 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 Facility Operating License No. DPR-47 is hereby amended to read as follows:

**B. Technical Specifications**

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 304 , 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



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: April 28, 1999



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

DUKE ENERGY CORPORATION

DOCKET NO. 50-287

OCONEE NUCLEAR STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 304  
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) Facility Operating License No. DPR-55 filed by the Duke Energy Corporation (the licensee) dated March 1, 1999, 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 Facility Operating License No. DPR-55 is hereby amended to read as follows:

**B. Technical Specifications**

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 304 , 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

*Richard L. Emch, Jr.*

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: April 28, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 304

FACILITY OPERATING LICENSE NO. DPR-38

DOCKET NO. 50-269

AND

TO LICENSE AMENDMENT NO. 304

FACILITY OPERATING LICENSE NO. DPR-47

DOCKET NO. 50-270

AND

TO LICENSE AMENDMENT NO. 304

FACILITY OPERATING LICENSE NO. DPR-55

DOCKET NO. 50-287

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contain vertical lines indicating the areas of change.

Remove

3.3.8-5

Insert

3.3.8-5

Table 3.3.8-1 (page 1 of 1)  
Post Accident Monitoring Instrumentation

FUNCTION	REQUIRED CHANNELS	CONDITIONS REFERENCED FROM REQUIRED ACTION G.1
1. Wide Range Neutron Flux	2	H
2. RCS Hot Leg Temperature	2	H
3. RCS Hot Leg Level	2	I
4. RCS Pressure (Wide Range)	2	H
5. Reactor Vessel Head Level	2	I
6. Containment Sump Water Level (Wide Range)	2	H
7. Containment Pressure (Wide Range)	2	H
8. Containment Isolation Valve Position	2 per penetration flow path (a)(b)(c)	H
9. Containment Area Radiation (High Range)	2	I
10. Containment Hydrogen Concentration	2	H
11. Pressurizer Level	2	H
12. Steam Generator Water Level	2 per SG	H
13. Steam Generator Pressure	2 per SG	H
14. Borated Water Storage Tank Water Level	2	H
15. Upper Surge Tank Level	2	H
16. Core Exit Temperature	2 independent sets of 5 <sup>(d)</sup>	H
17. Subcooling Monitor	2	H
18. HPI System Flow	1 per train	NA
19. LPI System Flow	1 per train	NA
20. Reactor Building Spray Flow	1 per train	NA
21. Emergency Feedwater Flow	2 per SG	H
22. Low Pressure Service Water Flow to LPI Coolers	1 per train	NA

- (a) Not required for isolation valves whose associated penetration is isolated by at least one closed and deactivated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.
- (b) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel.
- (c) Position indication requirements apply only to containment isolation valves that are electrically controlled.
- (d) The subcooling margin monitor takes the average of the five highest CETs for each of the ICCM trains.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 304 TO FACILITY OPERATING LICENSE DPR-38

AMENDMENT NO. 304 TO FACILITY OPERATING LICENSE DPR-47

AND AMENDMENT NO. 304 TO 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 March 1, 1999, Duke Energy Corporation (the licensee) submitted a request for changes to the Oconee Nuclear Station (ONS), Units 1, 2, and 3, Technical Specifications (TS). The requested changes would revise the number of required channels shown in TS Table 3.3.8-1, "Post Accident Monitoring Instrumentation" for the Reactor Coolant System (RCS) Hot Leg Temperature function from "2 per loop" to "2."

The licensee stated that during the ONS Improved Technical Specification (ITS) conversion program per NUREG-1430, Revision 1, "B&W Plant Standard Technical Specifications," the RCS Hot Leg Temperature function was incorrectly adopted to include two channels per loop. However, there are only two qualified channels per ONS nuclear unit for this function. This was previously documented in the ONS Updated Final Safety Analysis Report (UFSAR) and also in a letter from the licensee dated September 28, 1984, in response to Supplement 1 to NUREG-0737 (report for Regulatory Guide 1.97 implementation).

2.0 EVALUATION

The original ONS Units 1, 2, and 3 TS did not include the Hot Leg Water Temperature instrument channels in the post-accident monitoring (PAM) instrumentation table. In a letter dated September 28, 1984, the licensee provided a report showing that the ONS Units' plant specific variables were in compliance with Regulatory Guide 1.97, Revision 2. With regard to RCS Hot Leg Water Temperature, the report stated that two qualified (Quality Assurance Category 1) channels of wide range RCS Hot Leg Water Temperature indication would be installed.

During the ONS ITS conversion in 1998, the licensee consolidated Regulatory Guide 1.97 Category 1 and Type A variables into one specification (ITS Section 3.3.8) and added Category 1 or Type A variables that were previously not included in the existing TS. In the process of the ITS conversion, the licensee incorrectly adopted the wording of NUREG-1430, Revision 1, Table 3.3.8-1 requirement for two channels of the RCS Hot Leg Temperature

loop for the PAM function. The staff has verified that in the UFSAR Section 7.5.2.16 and also in the report submitted by letter dated September 28, 1984, the licensee committed to two qualified wide range RCS Hot Leg Temperature instrument channels per nuclear unit for the PAM function. The staff has concluded that this was the accepted licensing basis for ONS 1, 2, and 3 design and that the ITS was worded incorrectly.

### 3.0 SUMMARY

The change discussed in this submittal corrects errors made during the ITS conversion. Licensees are not required to adopt more strict requirements when converting the TS to ITS. The proposed change does not involve a physical alternation of the plant, no new or different equipment is being installed, and no installed equipment is being operated in a new or different manner. Furthermore, no setpoints for parameters that initiate protective or mitigative action are being changed. The proposed change agrees with the UFSAR and the plant design basis. Therefore, the staff finds the proposed change to TS Table 3.3.8-1 item 2 to be 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. 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 (64 FR 14281). 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: Hulbert Li

Date: April 28, 1999