

November 1, 2005

Mr. Ronald A. Jones  
Vice President, Oconee Site  
Duke Energy Corporation  
7800 Rochester Highway  
Seneca, SC 29672

SUBJECT: OCONEE NUCLEAR STATION, UNITS 1 AND 2 RE: ISSUANCE OF  
AMENDMENTS (TAC NOS. MC8125 AND MC8126)

Dear Mr. Jones:

The Nuclear Regulatory Commission has issued the enclosed Amendment Nos. 348 and 350 to Renewed Facility Operating Licenses DPR-38 and DPR-47, respectively, for the Oconee Nuclear Station, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated August 18, 2005, as supplemented by letter dated September 15, 2005.

The amendments revise TS 3.5.2.6 and 3.5.3.6 to accommodate the replacement of the reactor building emergency sump suction inlet trash racks and screens with strainers.

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 and 50-270

Enclosures: 1. Amendment No. 348 to DPR-38  
2. Amendment No. 350 to DPR-47  
3. Safety Evaluation

cc w/encls: See next page

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cc w/encls: See next page

Distribution: See next page

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License Amendment No.: ML052800170

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NRR-058

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SUBJECT: OCONEE NUCLEAR STATION, UNITS 1 AND 2 RE: ISSUANCE OF  
AMENDMENTS (TAC NOS. MC8125 AND MC8126)

Date: November 1, 2005

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DUKE ENERGY CORPORATION

DOCKET NO. 50-269

OCONEE NUCLEAR STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 348  
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 August 18, 2005, as supplemented September 15, 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. 348, 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, Section 1  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Technical Specification  
Changes

Date of Issuance: November 1, 2005

DUKE ENERGY CORPORATION

DOCKET NO. 50-270

OCONEE NUCLEAR STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 350  
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 August 18, 2005, as supplemented September 15, 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. 350, 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, Section 1  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Technical Specification  
Changes

Date of Issuance: November 1, 2005

ATTACHMENT TO LICENSE AMENDMENT NO. 348  
RENEWED FACILITY OPERATING LICENSE NO. DPR-38  
DOCKET NO. 50-269  
AND  
TO LICENSE AMENDMENT NO. 350  
RENEWED FACILITY OPERATING LICENSE NO. DPR-47  
DOCKET NO. 50-270

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

3.5.2-5  
3.5.3-3

Insert

3.5.2-5  
3.5.3-3

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO  
AMENDMENT NO. 348 TO RENEWED FACILITY OPERATING LICENSE DPR-38  
AND AMENDMENT NO. 350 TO RENEWED FACILITY OPERATING LICENSE DPR-47  
DUKE ENERGY CORPORATION  
OCONEE NUCLEAR STATION, UNITS 1 AND 2  
DOCKET NOS. 50-269 AND 50-270

1.0 INTRODUCTION

By letter dated August 18, 2005, as supplemented by letter dated September 15, 2005, Duke Energy Corporation (the licensee) submitted a request for changes to the Oconee Nuclear Station, Units 1 and 2 Technical Specifications (TS). The requested changes would revise TS 3.5.2.6 and 3.5.3.6 to accommodate the replacement of the reactor building emergency sump suction inlet trash racks and screens with strainers in response to Generic Letter 2004-02. The supplement dated September 15, 2005, provided clarifying information that did not change the scope of the August 18, 2005, application for the initial proposed no significant hazards consideration determination.

2.0 REGULATORY EVALUATION

Generic Letter 2004-02, *Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents and Pressurized Water Reactors*, is part of the regulatory framework the NRC staff is using to address issues associated with GSI-191, *Assessment of Debris Accumulation on PWR Sump Performance*, for requirements to improve evaluation of plant capability to meet Title 10 of the Code of Federal Regulations (10 CFR) Section 50.46(b)(5).

The new strainers are functionally equivalent to the existing trash racks and screens for meeting requirements of 10 CFR 50.46(b)(5) for Long Term Cooling and 10 CFR Part 50, Appendix A, Criterion 35 for Emergency Core Cooling.

3.0 TECHNICAL EVALUATION

The proposed change involves revising TS Surveillance Requirements 3.5.2.6 and 3.5.3.6 to use the term "strainers" to replace the terms "trash racks and screens". This change is needed to reflect the replacement of reactor building emergency sump suction inlet trash racks and

screens with strainer assemblies in response to NRC Generic Letter 2004-02. The new strainers are functionally equivalent to the existing trash racks and screens for meeting requirements of 10 CFR 50.46(b)(5) for Long Term Cooling and 10 CFR Part 50, Appendix A, Criterion 35 for Emergency Core Cooling. The use of the generic term "strainers" can be used for both the existing and new designs, will not affect implementation of Surveillance Requirements 3.5.2.6 and 3.5.3.6, and can be used for implementation of corrective actions to address GSI-191.

GSI-191 was established by the NRC to determine whether transport and accumulation of debris in pressurized-water reactor (PWR) containments following a loss-of-coolant accident (LOCA) would impede the long-term operation of the emergency core cooling system or containment spray system. The NRC is currently implementing its plan to have all PWR licensees evaluate the potential for excessive head loss across the containment sump screen and implement necessary actions to resolve concerns associated with GSI-191. This action plan includes review of all licensee responses to Generic Letter 2004-02 and plant audits as needed to confirm proper evaluation and corrective actions to address all technical issues associated with proper sump performance. The information that was provided by the licensee regarding jet impingement and pipe whip effects, and missile protection, will be reviewed as part of this action plan.

The NRC staff has reviewed the licensee's regulatory and technical analyses in support of its proposed license amendment, which are described in Attachments 3, 4, and 5 of the licensee's August 18, 2005, submittal and finds these justifications acceptable.

The NRC staff has also reviewed the evaluation of pipe whip, jet impingement and internally-generated missile impact on the emergency sump strainer. The sources and targets were identified by a walkdown of Oconee, Unit 1. Duke Calculations S-002 "Missile Evaluation for the Emergency Sump Strainer" and S-003 "Jet Impingement and Pipe Whip Evaluation for the Emergency Sump Strainer" document the walkdown results and performs the analysis of the findings. The calculations document that Oconee, Unit 2 piping arrangement in the area of the RBES is similar to that of Unit 1 and the calculations S-002 and S-003 apply to Oconee, Unit 2. The NRC staff concurs with the conclusions of these calculations. The NRC staff concludes that there are no credible missiles nor credible high-energy line break jets or pipe whips that could damage the strainer when needed during a LOCA.

The NRC staff is not approving the amendment for Unit 3 at this time, since the licensee has not completed its evaluation of the impact of pipe whip, jet impingement and internally-generated missiles for Unit 3. After the licensee completes these evaluations and submits the results to the NRC staff, the NRC staff will review them and, if they are acceptable, issue a similar amendment for Unit 3.

#### 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 51852). 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.

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Date: November 1, 2005

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