





Duke Energy Corporation

526 South Church Street  
P.O. Box 1006 (EC07H)  
Charlotte, NC 28201-1006  
(704) 382-2200 OFFICE  
(704) 382-4360 FAX

M. S. Tuckman  
Executive Vice President  
Nuclear Generation

February 1, 1999

U. S. Nuclear Regulatory Commission  
Washington D. C. 20555

ATTENTION: Document Control Desk

Subject: Oconee Nuclear Station  
Docket Numbers 50-269, -270, -287  
UFSAR Chapter 15 Transient Analysis Methodology,  
Topical Report DPC-NE-3005-P, Revision 1

References: 1) Letter, M. S. Tuckman (Duke), to  
NRC, July 30, 1997

2) D. E. LaBarge (NRC) to  
W. R. McCollum (Duke),  
October 1, 1998

Gentlemen:

By means of Reference 1, Duke Energy Corporation submitted Topical Report DPC-NE-3005-P which describes the new Duke methodology for analyzing the Oconee UFSAR Chapter 15 non-LOCA transients and accidents. NRC review and acceptance of this topical report were documented in a SER forwarded by Reference 2. Several issues requiring revisions to the topical report methodology were identified in Reference 2 and in a meeting with the NRC staff in Rockville on September 15, 1998. The requested revisions to the topical report have been addressed in the attached Revision 1 to DPC-NE-3005-P, dated January 1999. Several minor changes in addition to those requested by the NRC are also included in Revision 1. The following are the more significant issues addressed in Revision 1.

- The locked rotor analysis has been revised to include an acceptance criterion of 110% of design pressure per the SER for Revision 0.

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PDR 1 1w/o prop.

- The SGTR methodology has been revised to not credit operator action for tripping the reactor per the SER for Revision 0. The Reactor Protective System is assumed to trip the reactor at 20 minutes.
- The large and small steam line break methodology has been revised to not credit the main feedwater isolation system per the SER for Revision 0. This methodology revision includes a new VIPRE-01 core thermal-hydraulic model for predicting the DNBR.
- An acceptance criterion has been added to the small steam line break analysis to require no fuel failures per the SER for Revision 0. The offsite dose acceptance criterion was changed to 10% of Part 100 based on NRC staff comments at the September 15, 1998 meeting.
- The text sections which state that the offsite dose acceptance criteria have been met have been deleted based on NRC staff comments at the September 15, 1998 meeting.
- Added the BWU-N critical heat flux correlation for application to the Mk-B11 fuel assembly design for DNBR predictions below the mixing vanes and for the steam line break analysis.
- Added centerline fuel melt as a fuel damage criterion for the dropped rod analysis.

The above revisions and all minor changes are listed and identified by margin bars in the attached Revision 1 to DPC-NE-3005 (Attachment 1 - proprietary, and Attachment 2 - non-proprietary versions). The implementation of the DPC-NE-3005-P Revision 1 methodology will be with the Oconee 2 Cycle 18 reload. Submittal of the license amendment request associated with the Oconee 2 Cycle 18 reload is scheduled for February 1999. Approval of Revision 1 to DPC-NE-3005-P is requested by April 1, 1999 to support reload design activities for Oconee 2 Cycle 18, which is scheduled for startup in the fall of 1999.

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In accordance with 10CFR 2.790, Duke Power requests that this report be considered proprietary. Information supporting this request is included in the attached affidavit.

If there are any questions or if additional information is needed, please call J. S. Warren at (704) 382-4986.



M. S. Tuckman

Attachments (2)

xc w/o Attachment 1:

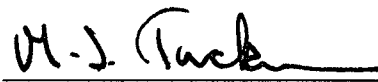
L. A. Reyes, Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region II  
Atlanta Federal Center  
61 Forsyth St., SW, Suite 23T85  
Atlanta, GA 30303

D. E. Labarge, NRC Senior Project Manager (ONS)  
U. S. Nuclear Regulatory Commission  
Mail Stop O-14H25  
Washington, DC 20555-0001

M. A. Scott  
NRC Senior Resident Inspector (ONS)

AFFIDAVIT

1. I am Executive Vice President of Duke Energy Corporation; and as such have the responsibility for reviewing information sought to be withheld from public disclosure in connection with nuclear power plant licensing; and am authorized on the part of said Corporation (Duke) to apply for this withholding.
2. I am making this affidavit in conformance with the provisions of 10CFR 2.790 of the regulations of the Nuclear Regulatory Commission (NRC) and in conjunction with Duke's application for withholding, which accompanies this affidavit.
3. I have knowledge of the criteria used by Duke in designating information as proprietary or confidential.
4. Pursuant to the provisions of paragraph (b)(4) of 10CFR 2.790, the following is furnished for consideration by the NRC in determining whether the information sought to be withheld from public disclosure should be withheld.
  - (i) The information sought to be withheld from public disclosure is owned by Duke and has been held in confidence by Duke and its consultants.
  - (ii) The information is of a type that would customarily be held in confidence by Duke. The information consists of analysis methodology details, analysis results, supporting data, and aspects of development programs relative to a method of analysis that provides a competitive advantage to Duke.



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- (iii) The information was transmitted to the NRC in confidence and under the provisions of 10CFR 2.790, it is to be received in confidence by the NRC.
- (iv) The information sought to be protected is not available in public to the best of our knowledge and belief.
- (v) The proprietary information sought to be withheld in this submittal is that which is marked in Attachment 1 to Duke Energy Corporation letter dated February 1, 1999; SUBJECT: UFSAR Chapter 15 Transient Analysis Methodology, Topical Report DPC-NE-3005-P, Revision 1. This information enables Duke to:
  - (a) Respond to NRC requests for additional information regarding transient response of Babcock & Wilcox PWRs.
  - (bc) Simulate UFSAR Chapter 15 transients and accidents for Oconee Nuclear Station.
  - (cd) Perform safety evaluations per 10CFR50.59.
  - (de) Support Facility Operating Licenses/Technical Specifications amendments for Oconee Nuclear Station.



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- (vi) The proprietary information sought to be withheld from public disclosure has substantial commercial value to Duke.
  - (a) It allows Duke to reduce vendor and consultant expenses associated with supporting the operation and licensing of nuclear power plants.
  - (b) Duke intends to sell the information to nuclear utilities, vendors, and consultants for the purpose of supporting the operation and licensing of nuclear power plants.
  - (c) The subject information could only be duplicated by competitors at similar expense to that incurred by Duke.
  
- 5. Public disclosure of this information is likely to cause harm to Duke because it would allow competitors in the nuclear industry to benefit from the results of a significant development program without requiring commensurate expense or allowing Duke to recoup a portion of its expenditures or benefit from the sale of the information.



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M. S. Tuckman, being duly sworn, states that he is the person who subscribed his name to the foregoing statement, and that all the matters and facts set forth within are true and correct to the best of his knowledge.

M. S. Tuckman

M. S. Tuckman, Executive Vice President

Subscribed and sworn to before me this 2<sup>ND</sup> day of  
February, 1999

Mary P. Nelms  
Notary Public

My Commission Expires:

JAN 22, 2001

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bxc:

w/Attachments:

G. B. Swindlehurst  
J. E. Burchfield  
J. A. Perry  
R. R. St. Clair  
J. S. Warren

w/o Attachments:

L. A. Keller