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March 13, 2007

U. S. Nuclear Regulatory Commission
Washington, D. C. 20555-001
Attention: Document Control Desk

Subject: Duke Power Company LLC d/b/a Duke Energy Carolinas, LLC (Duke)
Oconee Nuclear Station, Units 1, 2, and 3
Docket Numbers 50-269, 50-270, and 50-287

Report Pursuant to 10 CFR 50.46, Changes to or Errors in an
Evaluation Model

References: 1) Letter, L. W. Barnett (USNRC) to J. Mallay (Framatome ANP),
"Safety Evaluation of Framatome Technologies Topical Report BAW-
10164P Revision 4, "RELAP5/MOD2-B&W, An Advanced Computer
Program for Light Water LOCA and Non-LOCA Transient Analyses"
(TAC Nos. MA8465 and 8468), April 9, 2002.

10 CFR 50.46 (a)(3)(ii) requires the reporting of changes to or errors in ECCS
evaluation models (EM). This report covers the time period from January 1, 2005 to
December 31, 2005.

Just prior to this time period, the steam generators were replaced in Unit 3 along with
modifications to the low pressure injection system (LPI). To address these plant
modifications for Unit 3's startup in early 2005, the LOCA analyses were revised and the
analysis of record for Unit 3 was updated to be identical to the Unit 1 and Unit 2
analyses. The revised analyses were performed using a modification of the Framatome
evaluation model incorporating Revision 4 of BAW-10164P-A which was approved by
the NRC in 2002 (Reference 1). There were no other changes/errors to the EM.

Included in this report is a summary table of the peak cladding temperatures (PCT) for
Units 1, 2, and 3.

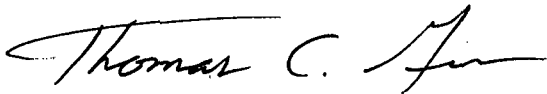
There are no regulatory commitments associated with this letter.

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This report is being submitted beyond the annual reporting requirement of 10 CFR 50.46. A licensee corrective action problem report (PIP G-07-0150) was issued to address the administrative failure to satisfy this requirement. This occurrence is currently being evaluated to identify appropriate corrective actions.

Please address any comments or questions regarding this matter to L. B. Jones at (704) 382-4753.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas C. Geer". The signature is fluid and cursive, with a large initial "T" and a stylized "G".

Thomas C. Geer
Vice President, Nuclear Engineering

Attachment

Table 1 – Peak Cladding Temperature Summary – Oconee Units 1, 2, and 3

xc: (with attachment)

W. D. Travers, Region II Administrator
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ATTACHMENT

Table 1 – Peak Cladding Temperature Summary – Oconee Units 1, 2, and 3

Table 1
Peak Cladding Temperature Summary – Oconee Units 1, 2, and 3

LBLOCA	PCT(°F)	Comments
Evaluation model: RELAP5/MOD2-B&W		
Analysis of record PCT	2035 2028	Mark-B11 (M5), 17.7 kW/ft At 6.021 ft elevation Mark-B10T, Estimated based on the OTSG analysis
Prior errors (Δ PCT) 1. None	0	
Prior evaluation model changes (Δ PCT) 1. None	0	
Errors (Δ PCT) 1. None	0	
Evaluation model changes (Δ PCT) 1. None	0	
Absolute value of errors/changes for this report (Δ PCT)	0	
Net change in PCT for this report	0	
Final PCT	2035 2028	Mark-B11 Mark-B10T
SBLOCA	PCT(°F)	Comments
Evaluation model: RELAP5/MOD2-B&W		
Analysis of record PCT	1461	Full Power -100% FP (2 HPI Case) 0.15 ft ² break
Prior errors (Δ PCT) 1. None	0	
Prior evaluation model changes (Δ PCT) 1. None	0	
Errors (Δ PCT) 1. None	0	
Evaluation model changes (Δ PCT) 1. None	0	
Absolute value of errors/changes for this report (Δ PCT)	0	
Net change in PCT for this report	0	
Final PCT	1461	
SBLOCA	PCT(°F)	Comments
Analysis of record PCT	1774	Reduced Power – 75% FP (1 HPI case) 0.075 ft ² break
Prior errors (Δ PCT) 1. None	0	
Prior evaluation model changes (Δ PCT) 1. None	0	
Errors (Δ PCT) 1. None	0	
Evaluation model changes (Δ PCT) 1. None	0	
Absolute value of errors/changes for this report (Δ PCT)	0	
Net change in PCT for this report	0	
Final PCT	1774	