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Southern Nuclear Operating Company

Dave Morey Vice President Farley Project

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the southern electric system

Docket No.: 50-348

10 CFR 50.4

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D.C. 20555

> Joseph M. Farley Nuclear Plant - Unit Radial Peaking Factor Limit Repor

Ladies and Gentlemen:

Enclosed is the Radia! Peaking Factor Limit Report for Cycle 14 of Unit 1. This report is provided in accordance with Paragraph 6.9.1.11 of the Unit 1 Technical Specifications. The current Technical Specification 6.9.1.11 requires that a Radial Peaking Factor Limit Report be submitted before each reload cycle (prior to Mode 2). Also enclosed is a copy of the elevation dependent peaking factor versus core height graph for Cycle 14 of Unit 1.

The enclosed Radial Peaking Factor Limit Report was evaluated using both the Pow σ Shape Sensitivity Model (PSSM) screening process and the Explicit Shape Analysis for PCT Effects (ESHAPE) to ensure that the cosine shape remains the limiting power distribution in the large break loss of coolant accident analysis. The PSSM and ESHAPE processes eliminate the need for applying penalty factors on the $F_{xy}(z)$ surveillance data.

If you have any questions, please advise.

Respectfully submitted,

Dave Morey

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Enclosures:

1. Report for Cycle 14 of Unit 1

2. Graph for Cycle 14 of Unit 1

cc: Mr. S. D. Ebneter, Region II Administrator
Mr. B. L. Siegel, NRR Senior Project Manager

Mr. T. M. Ross, Plant Resident Inspector

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