Southern Nuclear Operating Company
Post Office Box 1295
Birmingham, Alabama 35201
Telephone 205 868-5086

J. D. Woodard
Vice President
Farley Project

Southern Nuclear Operating Company
the southern electric system

February 24, 1992

10 CFR 50.55a(a)(3)

Docket No. 50-364

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

Joseph M. Farley Nuclear Plant - Unit 2
Determination of Steam Generator 2C Hydrostatic Test Temperature
and Request for Approval to Utilize ASME Code Case N-498

Gentlemen:

Examination of the Steam Generator 2C upper transition cone-to-shell weld performed during the Unit 2 seventh refueling outage revealed an indication exceeding the ASME Code, Section XI acceptance criteria. An evaluation determined that the indication was acceptable under the provisions of IWB-3600, and in accordance with Code requirements, NRC approval was requested. By letter dated December 13, 1990, the NRC approved the disposition provided, in part, that "(p)rior to the next hydrotest (scheduled for the next refueling outage), the temperature for performance of future hydrotests of the secondary side of the steam generator will be submitted for our review." The Safety Evaluation enclosed with the letter further stated that future hydrotests be "performed at temperatures greater than 130° F."

The NRC's determination was based on information supplied in WCAP-12213, Revision 1, "Handbook on Flaw Evaluation for Joseph M. Farley Units 1 and 2 Steam Generators and Pressurizers," dated July, 1990, which was submitted to the NRC by letter dated November 20, 1990 and served as the basis for acceptance of the indication. In evaluating the NRC's request, it was determined that the chart (Figure A-6.5) which specified the modified hydrostatic test temperature requirements was based on a higher test pressure than is actually utilized for inservice hydrostatic tests. Enclosed for NRC review is Revision 2 of the subject WCAP, dated July 1991, which includes revised charts indicating the corrected test temperature values. Based on ASME Code requirements and approved Relief Request RR-30 from the Unit 2 Inservice Inspection (ISI) Program, the steam generator hydrostatic test is conducted at 1356 psi for the initial ten minutes and at a reduced pressure of 1085 psi for the remainder of the four hour test. The revised charts (Figures A-6.5 and A-6.6) for these test pressures indicate that minimum test temperatures of 125° F and 100° F, respectively, are suitable for performing inservice hydrostatic tests of the 2C steam generator.

Subsequently, the ASME Code has issued Code Case N-498 which provides alternative rules for performing ten-year hydrostatic pressure tests of Class 1 and 2 components. It is Southern Nuclear's understanding that the NRC has completed its review of the Code Case, has approved its use and that publication in the next revision of Regulatory Guide 1.147 is eminent. Utilization of this Code Case would mitigate the need for performing the ten-year hydrostatic pressure tests required by Section XI, by allowing inservice leak tests instead. This would include tests scheduled for the Unit 2 steam generators during the eighth refueling outage, tentatively scheduled to begin March 6, 1992.

2600

A001
1/1

Pursuant to the requirements of 10 CFR 50.55a(a)(3), Southern Nuclear herewith requests approval to utilize the alternative rules of Code Case N-498 in lieu of the ten-year hydrostatic pressure test requirements of Section XI, 1983 Edition through the Summer 1983 Addenda, as applicable to Class 1 and 2 components. Use of these alternative rules will not reduce the level of quality or safety of these components and will reduce personnel radiation exposure.

The steam generator hydrostatic tests are scheduled to begin immediately after unit shutdown; therefore, approval is requested prior to Friday, March 6, 1992 so that these alternative rules may be utilized for the Unit 2 eighth refueling outage. Following publication of the revised Regulatory Guide, which is expected during the second quarter of 1992, Southern Nuclear will add Code Case N-498 to each unit's ISI Program list of applicable Code Cases.

If there are any questions or if additional information is required, please advise.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

J. D. Woodard

JDW/STB:map 1965

Enclosure

cc: Mr. S. D. Ebneter
Mr. S. T. Hoffman
Mr. G. F. Maxwell