



Southern Nuclear Operating Company

*the southern electric system*

J. D. Woodard  
Vice President  
Farley Project

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Docket Nos. 50-348  
50-364

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

Joseph M. Farley Nuclear Plant  
Large Break LOCA PCT Penalty Associated with LOCA+SSE

Gentlemen:

By letter dated July 31, 1990, Alabama Power Company forwarded WCAP-12659, "Alabama Power Joseph M. Farley Unit 2 Increased Steam Generator Tube Plugging and Reduced Thermal Design Flow Licensing Report," in support of increasing the steam generator tube plugging limit to an average of 15%. Included in that WCAP on page 4.10 was a conservative 50°F large break LOCA PCT penalty for the combined effects of a LOCA+SSE.

By letter dated November 18, 1990, Alabama Power Company forwarded WCAP-12763, "Steam Generator Tube Collapse Considerations," documenting the slides used in a meeting with the NRC Staff on November 7, 1990. In that letter, a commitment was made to update the large break LOCA PCT penalty discussed in WCAP-12659 on completion of the leak-before-break (LBB) analysis for Unit 2. A similar commitment was made for Unit 1 in a January 14, 1991 letter.

The LBB analysis was forwarded to the NRC on January 28, 1991. By letter dated August 12, 1991, the Staff issued its safety evaluation report for LBB.

By letter dated September 10, 1991, Alabama Power Company forwarded WCAP-13064, "J. M. Farley Nuclear Plant Units 1 and 2 Response to NRC Request for Additional Information on Steam Generator Flow Area Reduction due to Combined LOCA and SSE Loads." This WCAP provided a Farley specific analysis which provided the basis for reducing the previous 50°F penalty to 6°F.

In conjunction with the steam generator tube support plate alternate plugging criteria, by letter dated November 13, 1991, Alabama Power Company forwarded WCAP-12871, Revision 1, "J. M. Farley Units 1 and 2 SG Tube Plugging Criteria for ODSCC at Tube Support Plates." Section 11.0, "Steam Line Break and Combined Accident Considerations," contains the latest analysis performed by Westinghouse. This analysis, based on a Model 51 tube support plate crush test, results in no penalty for tube collapse as a result of the LOCA+SSE. This analysis is also contained in Revision 2 of WCAP-12871 submitted by letter dated February 20, 1992.

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By letter dated March 11, 1992, the Staff forwarded the safety evaluation report for VANTAGE-5. This evaluation contained a 6°F penalty for the LOCA+SSE issue.

Contrary to the commitment in the November 18, 1990 and January 14, 1991 letters, Southern Nuclear does not intend to update WCAP-12659 or WCAP-12694. Revised analyses have been documented in WCAP-13064 and WCAP-12871, Revisions 1 and 2. Since these WCAPs have been submitted to the Staff, Southern Nuclear sees no need to update WCAP-12659 or WCAP-12694.

If there are any questions, please advise.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

  
J. D. Woodard

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