

J. D. Woodard  
Vice President-Nuclear  
Farley Project



May 13, 1991

10 CFR 50.90

Docket Nos. 50-348  
50-364

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

Joseph M. Farley Nuclear Plant  
Low-Temperature Overpressure Protection  
Technical Specification Change Per Generic Letter 90-06

Gentlemen:

On June 25, 1990 the NRC issued Generic Letter (G.L.) 90-06: Resolution of Generic Issue 70, "Power-Operated Relief Valve and Block Valve Reliability," and Generic Issue 94, "Additional Low-Temperature Overpressure Protection for Light-Water Reactors." In G.L. 90-06 the NRC delineated specific recommendations which address the concerns of Generic Issues 70 and 94. With regard to low temperature overpressure protection, the NRC requested utilities to commit to modify the RCS low-temperature overpressure protection (LTOP) system technical specification to account for the increased likelihood of an overpressure event during operating Modes 5 and 6.

Alabama Power Company provided an initial response to G.L. 90-06 by letter December 14, 1990. In the December 14, 1990 letter, Alabama Power Company committed to submit a proposed change to the LTOP technical specification or a justification for not changing the current technical specification by the end of the Unit 1 tenth refueling outage. By this letter Alabama Power Company requests a change to the LTOP technical specification in order to address the concerns of Generic Issue 94, and as such, fulfills the previous commitment.

Alabama Power Company has reviewed the recommendations of G.L. 90-06 and the supporting analysis reported in NUREG-1326, "Regulatory Analysis for the Resolution of Generic Issue 94 Additional Low-Temperature Overpressure Protection for Light-Water Reactors," and agrees with the NRC's conclusion that the greatest risk of an overpressure event occurs during water-solid operation. At Farley Nuclear Plant Units 1 and 2 the residual heat removal (RHR) safety relief valves provide LTOP protection for the RCS.

Change for Encl A019 1/1 Prop  
PDR 1 INP 1 Non Prop

A plant-specific probabilistic risk assessment was performed for the case with one RHR relief valve out of service using assumptions and methods similar to those utilized in NUREG-1326. The assessment shows that a substantial reduction in risk from an overpressure event can be achieved by applying greater restrictions upon plant operation with one LTOP channel inoperable when in a water-solid configuration than that currently required by the technical specification. An approximate 54 percent reduction in core damage frequency can be realized by reducing the allowed outage time for an RHR relief valve from the current seven days to 24 hours for water-solid operation. Therefore, Alabama Power Company provides as Attachment 1 a proposed change to the LTOP technical specification to reduce the allowed outage time for an inoperable RHR relief valve from the current seven days to 24 hours when operating with the RCS in a water-solid condition. The supporting significant hazards evaluation pursuant to 10 CFR 50.92 is provided as Attachment 2. Based upon the analysis provided, Alabama Power Company has determined that the proposed change to the technical specifications does not involve a significant hazards consideration as defined by 10 CFR 50.92.

Alabama Power Company has evaluated the risk from an overpressure event during Modes 5 and 6 when the RCS is not water-solid. Based upon the analysis performed, Alabama Power Company believes the reduction in risk realized from a more restrictive allowed outage time for an LTOP channel is insignificant for times other than when the RCS is water-solid. The analysis concludes that only an additional 4.6 percent reduction in core damage frequency can be achieved by reducing the allowed outage time for an RHR relief valve for all times during Modes 5 and 6 including non-water-solid conditions. Therefore, Alabama Power Company does not propose to modify the current seven-day LCC for an inoperable RHR relief valve for operation in non-water-solid conditions. The results of the analysis to support this position are provided in the accompanying Westinghouse report.

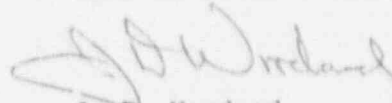
Provided as Attachment 3 are the results of the probabilistic risk assessment study as documented in Westinghouse report WCAP-12933, "Allowable Outage Time Study for Residual Heat Removal Valves for Farley Nuclear Plant Units 1 and 2" (proprietary) and WCAP-12955, "Allowable Outage Time Study for Residual Heat Removal Valves for Farley Nuclear Plant Units 1 and 2" (non-proprietary). Provided with Attachment 3 are a Westinghouse authorization letter, CAW-91-159, accompanying affidavit, Proprietary Information Notice and a Copyright Notice. As WCAP-12933 contains information proprietary to Westinghouse Electric Corporation, it is supported by an affidavit signed by Westinghouse, the owner of the information. The affidavit sets forth the basis upon which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in Paragraph (b)(4) of Section 2.790 of the Commission's regulations. Accordingly, it is respectfully requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR 2.790 of the Commission's regulations. Correspondence with respect to the copyright or proprietary aspects of the items listed above or the supporting Westinghouse affidavit should reference CAW-91-159 and should be addressed to Mr. R. P. DiPiazza, Manager, Operating Plant Licensing Support, Westinghouse Electric Corporation, P.O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

The Plant Operations Review Committee has reviewed and approved these proposed changes and the Nuclear Operations Review Board will review these proposed changes at a future meeting.

A copy of these proposed changes is being sent to Dr. C. E. Fox, the Alabama State Designee, in accordance with 10 CFR 50.91 (b)(1).

Respectfully submitted,

ALABAMA POWER COMPANY

  
J. D. Woodard

JDW/BHW:map 0128

Attachments

cc: Mr. S. D. Ebnetter  
Mr. S. T. Hoffman  
Mr. G. F. Maxwell  
Dr. C. E. Fox

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 13<sup>th</sup> DAY OF May 1991

  
Notary Public

My Commission Expires: 9-14-94

bc: Mr. R. P. McDonald  
Mr. D. N. Morey  
Mr. J. E. Garlington  
Mr. K. W. McCracken  
Mr. C. D. Nesbitt  
Mr. J. W. McGowan  
Mr. O. Batum  
Mr. W. R. Bayne  
Commitment Tracking System (2)