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NUCLEAR PRODUCTION DEPARTMENT

June 10, 1982

U. S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Washington, D. C. 20555

Attention: Mr. Harold R. Denton, Director

Dear Mr. Denton:

SUBJECT: Grand Gulf Nuclear Station
Units 1 and 2
Docket Nos. 50-416 and 50-417
File 0272/L-860.0
Pressure Interlocks on LPCI and
LPCS
AECM-82/259

Recent discussions with members of your staff have identified concerns regarding pressure interlocks on high/low pressure system interfaces in the Grand Gulf Nuclear Station (GGNS) design.

Prior to the issuance of the GGNS Safety Evaluation Report, your staff requested our documented evaluation of compliance with Branch Technical Position ICSB BTP-3, "Isolation of Low Pressure Systems from the High Pressure Reactor Coolant Systems." Our response was provided in the MP&L letter, AECM-81/308, dated August 21, 1981. That response indicated that the low pressure interlock, inhibiting the opening of the injection valves for low pressure core spray and low pressure coolant injection, is instated only in test situations. This design invokes paragraph B.5 of the subject BTP, as discussed in the above referenced letter.

Reactor Systems Branch (RSB) contends that the above position is not totally acceptable due to recent failures of check valves which provide a high/low pressure system interface. RSB has verbally advised MP&L that the GGNS design should be modified to provide the appropriate interlock, preventing injection valve opening until primary system pressure is lower than the design pressure of the associated low pressure emergency cooling system involved. This requirement has been evaluated and accepted by MP&L for implementation no later than the startup from the first regularly scheduled refueling outage.

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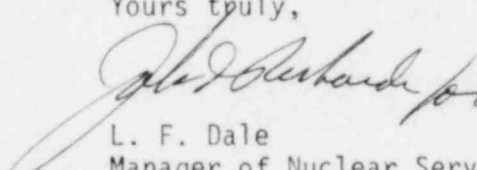
The evaluation also takes into account the possible effects on peak clad temperature (PCT). The subject interlock causes the injection valve to reach full open position at a time slightly later in the event (as compared to the design without the interlock). This will result in an increase in PCT of approximately 20°F. This increase in PCT will bring the maximum PCT to approximately 2118°F. GGNS Final Safety Analysis Report (FSAR) Table 6.3-3 and all other applicable portions of the FSAR will be revised to reflect this design modification when it has been completed.

As discussed with your Mr. T. Collins of RSB on June 8, 1982, additional surveillance requirements will be incorporated in the GGNS technical specifications in the interim period, prior to the design change. These requirements will call for leak testing of the subject check valves whenever the plant has been placed in either cold shutdown or refueling conditions. The exact details of the technical specifications change will be provided upon resolution with Reactor Systems Branch.

We conclude that the proposed design change, associated schedule, and the commitment to implement the above noted surveillance inspection requirements provide adequate response to the concerns of your staff on this issue.

If you require further information, please advise.

Yours truly,


L. F. Dale
Manager of Nuclear Services

JGC/JDR:n11

cc: Mr. N. L. Stampley
Mr. G. B. Taylor
Mr. R. B. McGehee
Mr. T. B. Conner

Mr. Richard C. DeYoung, Director
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