HA! B Tucker Vice President Nuclear Production (704)373-4531



DUKE POWER

August 1, 1990

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

Subject: McGuire Nuclear Station, Units 1 and 2
Docket Nos. 50-369 and 50-370
NUREG-0737 Item II.D.1, Performance
Testing of Relief and Safety Valves
NRC Review/Technical Evaluation Report Final Response
(TACS 76433 and 76434)

Gentlemen:

My letter of March 19, 1990 concerning deficiencies noted in the NRC's Technical Evaluation Report (TER) of the McGuire Nuclear Station response to NUREG-0737 Item II.D.1, "Performance Testing of Relief and Safety Valves", discussed an error that had been identified in the existing thermal hydraulic analysis (SLUGGER computer program) which invalidated the existing structural calculation results for the piping downstream of the pressurizer safety valves. Duke had reviewed the impact of the load changes due to this error on the structural analysis for the system and found that the system remained operable but was not in full compliance with the ASME Code, and Duke was reviewing reanalysis/field modification alternatives to bring the system within ASME Code compliance. These alternatives involved either modifying existing pressurizer code safety valves or purchasing new valves that will seal with a steam medium. This review was being performed to permit final resolution of NUREG-0737 Item II.D.1 by eliminating the transient load of the current water inventory that provides the water seals for the existing valves. An assessment of the result of this review and a schedule for performing and implementing this work in accordance with ASME requirements was to be included in a response (by August 1, 1990) addressing the results of combining seismic with the original analysis results (i.e., the Items 7 and 8b TER requested additional information).

Duke has determined that the most safe, efficient and cost effective alternative is to change the seal configuration for the existing valves to seal on a steam medium and installing a continuous drain for the existing loop piping. A modification request is underway to perform this work. Unit 2 valves and piping will be modified during the End of Cycle (EOC) 7 refueling outage currently scheduled to begin November 15, 1991, and the Unit 1 valves and piping will be modified during the EOC8 refueling outage currently scheduled to begin October 12, 1992. These schedules are appropriate considering equipment lead times and unit availability to obtain required surveillance information.

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This response, reflecting the completion of the thermal hydraulic and structural reanalysis and addressing the Items 7 and 8b additional information requests, completes our response to NUREG-0737 Item II.D.1. The system will be in ASME code compliance upon completion of the above discussed actions. Should there be any questions concerning this response/schedule or if further information is desired regarding the resolution of this issue, contact Bruce Nardoci at (704) 373-7432.

Very truly yours,

Jac B. tecke

Hal B. Tucker

PBN/209/1cs

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