



Omaha Public Power District

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July 1, 1982

LIC-82-253

Mr. Robert A. Clark, Chief
U. S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Licensing
Operating Reactors Branch No. 3
Washington, D.C. 20555

Reference: Docket No. 50-285

Dear Mr. Clark:

NUREG-0737, Item II.D.1
Relief and Safety Valve Test Program

In response to the subject TMI Action Plan item, as modified by Generic Letter 81-36, a plant specific report was required. This report is to demonstrate:

- (1) The Fort Calhoun Station safety and power operated relief valves have been shown by test and supporting analyses to be capable of performing their required safety function.
- (2) The associated piping system(s) can survive the thermal and dynamic stresses imposed by valve actuation.

The results of analyses performed to date and the District's schedule for completing these reports is attached as Attachments 1 and 2, respectively.

Sincerely,

W. C. Jones
Division Manager
Production Operations

Attachments

cc: LeBoeuf, Lamb, Leiby & MacRae
1333 New Hampshire Avenue, N.W.
Washington, D.C. 20036

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FUNCTIONABILITY OF PORV/SV

This letter provides Omaha Public Power District's response to the Commission's request for a submittal to address the functionability of the pressurizer safety valves and power operated relief valves (PORV's) that are installed in the Fort Calhoun Station. Item II.D.1.A of NUREG-0737 requires utilities operating and/or constructing pressurized water reactor (PWR) power plants to provide evidence, supported by test, of safety and relief valve functionability. In response to these requirements, the Electric Power Research Institute (EPRI) implemented a generic test program on behalf of the PWR utilities. The District has been a participant in this EPRI program. The Commission's Generic Letter 81-36, dated September 19, 1981, contains a schedule for the submittal of test results and the submittal of plant-specific reports. In accordance with this schedule, results of the EPRI program, summarized in various EPRI reports, were forwarded to the Commission on April 1, 1982, in parallel with distribution to the participating utilities.

In order to facilitate an expeditious evaluation of the test data, the utilities operating and constructing Combustion Engineering (CE) designed plants, through the CE Owners Group, requested that CE implement a program to evaluate and apply the EPRI test results. The CE Owners Group program was subsequently initiated in April, 1982 and is currently in progress. The District is a participant in this program.

The approach being applied by the CE Owners Group is to show that particular EPRI tests were directly representative of plant-specific safety and relief valve models and valve installations and that acceptable valve operation was demonstrated. The portion of the program related to PORV's has already been completed. Accordingly, CE report CEN-213, entitled "Summary Report on the Operability of Power Operated Relief Valves in CE Designed Plants," is being forwarded separately to the Commission by Mr. Kenneth P. Baskin, Chairman of the CE Owners Group. The District considers report CEN-213 to provide the required information on PORV operability for the Fort Calhoun Station.

With regard to the evaluation of safety valves, our review of the EPRI tests has determined that the valves and installations used in the Fort Calhoun Station were represented in the EPRI program and the test conditions enveloped the range of fluid conditions recommended by NUREG-0737. The valve discharge for the Fort Calhoun Station is limited to steam conditions that follow the initial release of water contained in a loop seal at the inlet to each valve. Although there is no safety concern, the EPRI tests have indicated for this type of installation that future valve adjustments may be beneficial for optimal performance. Currently, detailed plant-specific evaluation and application of the EPRI data is being performed as part of the CE Owners Group program. In addition, input from the valve manufacturers is being requested. That information is expected to be received during the third quarter of 1982 and will then be incorporated into the CE evaluation. If valve adjustments are necessary, they will be identified in the CE evaluation based on performance demonstrated by the EPRI tests. The final results of the

CE evaluation will then be presented in a CE Owners Group report that is scheduled for completion in December, 1982. Since the District is a participant in the program, the operability of safety valves in the Fort Calhoun Station will be addressed by this report. Currently, our intent is to provide you with the final report, which will serve as our final submittal, by December 31, 1982.

PORV/SV PIPING SYSTEM ANALYSIS

The District has initiated an analysis of the power operated relief valve/safety valve (PORV/SV) piping system and supports. This analysis will evaluate the effects of thermal and dynamic stresses imposed on the existing PORV/SV piping system and the effect on the PORV/SV's ability to perform their designed safety function. The results of this analysis and a schedule for identified design modifications (if required) resulting from the analysis will be included in the December 31, 1982 final report.