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January 29, 1981  
EF2-49,878

Mr. James G. Keppler, Director  
Region III  
U.S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

Subject: Interim Report on 10CFR50.55(e) Item on Fisher Control Valves (#37).

Dear Mr. Keppler:

On December 31, 1980, Detroit Edison's Mr. H.A. Walker, Supervisor-Construction Quality Assurance, telephoned Mr. R. Knop of the NRC - Region III to report on a problem with Fisher Control Valves at the Fermi 2 Site.

Control Valves were purchased from Fisher Controls according to Detroit Edison specifications. During the purchase of additional valves, Detroit Edison Design Engineering determined that cut-off frequencies had not been specified to assure that seismic design of the valves accounted for the Fermi 2 peak response frequency. It has been subsequently determined that a design deficiency exists.

Description of Deficiency

Control Valves purchased from Fisher Controls were specified without providing a cut-off frequency for seismic analysis. In subsequent discussions with Fisher Controls, it was requested that Fisher review all Fisher supplied safety related control valves for minimum resonant frequencies. Based on this analysis, it was determined that ten (10) valves have natural frequencies below thirty-three (33) hz. The resultant stress levels that the actuator bonnet assembly are subjected to during a basis event could cause valve failure and pressure integrity rupture.

Action Taken

An investigation has been initiated to determine if the control valves can be qualified by determining the natural frequencies of the piping systems within which these valves are installed. A time history analysis will be performed on each pipe system configuration containing the control valve to establish the natural frequency of the system. If the natural frequency of the control valve is established to be above the piping system natural frequency, the valve will be accepted as qualified. In parallel to the engineering investigation, the specifications will be updated and quotations for new valves will be sought and purchase initiated as necessary.

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A final report is scheduled to be submitted to you by May 15, 1981. If you have questions concerning this matter, please contact Mr. H.A. Walker, Supervisor Construction Quality Assurance.

Very truly yours,

*Edward Hines*

EH/HAW/cp

cc: Mr. Victor Stello, Jr., Director  
Office of Inspection and Enforcement  
Division of Reactor Inspection Programs  
U.S. Nuclear Regulatory Commission  
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