

THE CINCINNATI GAS & ELECTRIC COMPANY



CINCINNATI, OHIO 45201  
November 8, 1982  
QA-2102

E. A. BORGMANN  
SENIOR VICE PRESIDENT

U. S. Nuclear Regulatory Commission  
Region III  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

Attention: Mr. J. G. Keppler  
Regional Administrator

RE: WM. H. ZIMMER NUCLEAR POWER STATION UNIT I  
10CFR50.55(e) - ITEM M-37, FAILURE OF KEROTEST  
VALVES, DOCKET NO. 50-358, CONSTRUCTION  
PERMIT NO. CUPR-88, W.O. #57300 JOB E-5590  
FILE NO. NRC-8, M-37

Gentlemen:

This letter constitutes a final report concerning the subject condition initially reported to the Commission as a reportable deficiency under 10CFR50.55(e).

As stated in our previous report, QA-1861, dated July 8, 1982, Kerotest packless diaphragm seal valves, 2" and smaller, are utilized in various essential systems throughout the Zimmer plant, including the Reactor Recirculation, Nuclear Boiler and Residual Heat Removal Systems. During preoperational testing of these valves, it was noted on CG&E Nonconformance Report #0-NPD-82-1025E that some valves may appear to be open per indication of handwheel position, but are actually closed. This problem is attributed to the fact that the valve stem is not directly coupled to the disc, but rather utilizes a spring configuration. During certain conditions, the disc can become stuck on the seat and must be agitated manually in order to properly open.

The CG&E Nuclear Production Department (NPD) has determined that the cause of this problem is corrosion build-up resulting from system inoperability. This conclusion has been verified by the valve manufacturer. Additionally, a survey of problems identified by other plants using Kerotest valves indicates that "T" type valves may be subject to operational failure by diaphragm inversion when the valve is over-torqued. This condition is possible due to the relatively short stroke of the stem when actuated.

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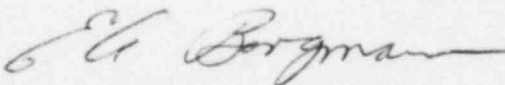
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To resolve this condition, all Kerotest valves will be "stroked" prior to operation to verify operability without sticking. In addition, a preventative maintenance program will be established to require operability verification on a three (3) year basis for valves selected to be critical to safe operations. Any "T" type valves critical to safe operations will be modified by lengthening the disc assembly and reforming the valve seats in accordance with the manufacturer's instructions. The above actions will be completed prior to fuel load.

We trust the above will be found acceptable as a final report under 10CFR50.55(e).

Very truly yours,

THE CINCINNATI GAS & ELECTRIC COMPANY

By   
E. A. BORGMANN  
SENIOR VICE PRESIDENT

FKP:plc

cc: NRC Office of Inspection & Enforcement  
Washington, D.C. 20555  
NRC Senior Resident Inspector  
Attn: W. F. Christianson  
Zimmer Project Inspector  
Region III