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MURRAY R. EDELMAN
VICE PRESIDENT
NUCLEAR

November 28, 1984

Mr. James G. Keppler
Regional Administrator, Region III
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

RE: Perry Nuclear Power Plant
Docket Nos. 50-440; 50-441
Dresser Industries Diaphragm Seal
Globe Valves [RDC 119(84)]

Dear Mr. Keppler:

This letter serves as the final report pursuant to 10CFR50.55(e) concerning Dresser Industries diaphragm seal globe valves, Dresser Figure 3050. Mr. R. C. Knop of your office was first notified on October 29, 1984, by Mr. P. P. Martin of The Cleveland Electric Illuminating Company (CEI) that this problem was being evaluated per our Deviation Analysis Report 212.

This report contains a description of the deficiency, an analysis of safety implication and corrective action being implemented at the Perry Nuclear Power Plant (PNPP).

Description of Deficiency

During preoperational Leak Rate Testing, Dresser diaphragm seal globe valves, Figure 3050, were found to be sticking closed or partially open. It has been determined that an erroneous leak rate can be obtained if the valve is thought to be open while, in fact, it is closed. Several sizes of Dresser diaphragm seal globe valves furnished under CEI Purchase Order P1690 have failed in this manner.

Inspection of valve internals has revealed two contributing problems. The first is an increased friction of the disc cap on the disc guide, apparently due to chipping of the "Glide-Aloy" plating on both the disc guide and disc cap. The second is apparently caused by insufficient inside diameter clearance between the disc cap and valve body along with sharp edges on the disc cap. Any uneven force applied by the spring or the diaphragm causes the disc cap to become tilted and bind.

Analysis of Safety Implication

Under normal circumstances the failure of these manual valves to operate does not result in any decrease in plant safety. However, since our present procedures utilize handwheel operation to determine the position of the manual test connections, a stuck closed test valve could mask a leaking containment isolation valve. This condition is therefore considered reportable.

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Also of concern is the possibility that any valve which must open to perform a safety-related function may not perform that function. However, there are no Dresser Industries diaphragm seal globe valves at PNPP in such "active" applications.

Corrective Action

To ensure the accuracy of leak rate tests, the PNPP preoperational test procedures will be revised to utilize flow in addition to handwheel operation to verify the position of the Dresser valves. Any stuck closed valve will be repaired/opened prior to performing the leak rate testing associated with that valve. The completion date for these procedure revisions is January 18, 1985. Operational Test Procedures (Post Fuel Load) will also reflect these requirements.

Notification to Dresser Industries concerning the results of our evaluation of this problem will be communicated via a copy of this report.

Please call if there are any additional questions.

Sincerely,

Murray R. Edelman
Vice President
Nuclear Group

MRE:pab

cc: Mr. J. A. Grobe
USNRC, Site Office

Mr. D. E. Keating
USNRC, Site Office

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