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SEP 05 1984

50-352/353

Dr. Thomas E. Murley, Director
Office of Inspection and Enforcement - Region I
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Subject: Limerick Generating Station, Units 1 & 2
Significant Deficiency Report No. 157 (Attachment 1)
ASCO Solenoid Valves Installed on Velan Air
Operated Valves
NRC Construction Permit Nos. CPPR-106 and 107

Reference: Telecon - J. P. Evans (PECo) to Jane Grant (USNRC), dated 9/4/84

File: QUAL 2-10-2 (SDR No. 157)

Dear Dr. Murley:

In compliance with 10CFR50.55(e), we are submitting our Significant Deficiency Report concerning ASCO solenoid valves installed on Velan air operated valve assemblies.

We trust that this satisfactorily resolves the item. Please do not hesitate to contact us if further information is required.

Sincerely,

J. S. Kemper

Copy to: Director of Inspection and Enforcement
United States Nuclear Regulatory Commission
Washington, DC 20555

S. Chaudhary, Resident NRC Inspector (Limerick)

JNM/pd09048403

Attachment

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Limerick Generating Station, Units 1 & 2
Significant Deficiency Report No. 157
Concerning Misapplication of ASCO Solenoid Valves

1.0 Introduction

This report concerns the improper application of ASCO Solenoid valves controlling air supply to Velan air operated valves in the Limerick Emergency Service Water System.

2.0 Description of Problem

The existing pilot solenoid valves (ASCO Model NP344A71E) are four way valves incorporating a design that provides the capability to control double acting valve operators (i.e. - ones not provided with spring return to a designated position). The air supply to these pilot solenoids does not ensure complete travel of the solenoid valve piston thus permitting partial venting to the atmosphere of the air supply to the valve operator. As a result, the subject valves occasionally do not stroke when called upon to do so, as was discovered during pre-operational testing.

3.0 Corrective Action to be Taken

The four way solenoid valves on all Emergency Service Water valves are being replaced by three way solenoid valves which will not be subject to the condition described above. The manual shutoff valves upstream of the pilot solenoid valves are also being replaced to increase air supply flow. The affected ESW valves will be tested to verify proper operation after the work is complete. This work will be complete by September 15, 1984.

4.0 Safety Implications

Failure of pilot solenoid valves to stroke the ESW valves could result in loss of emergency service water inventory and/or loss of the required cooling water to safety related ECCS heat exchangers.

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