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

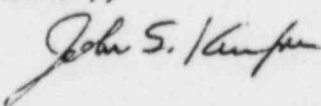
Subject: Limerick Generating Station, Units 1 and 2
 Final Significant Deficiency Report No. 151
 Damaged Spray Pond Sluice Gate Stems
 NRC Construction Permit Nos. CPPR-106 and 107

Reference: Telecon - P. K. Pavlides/PECO to J. Grant/NRC
 dated August 20, 1984

File: QUAL 2-10-2 (SDR No. 151)

Dear Mr. Murley:

In compliance with 10CFR50.55e, enclosed is the final report on the subject deficiency. Your office was informed of this matter on August 20, 1984, by the referenced telecon.

Sincerely,


CSM/dmm/08218401

Attachment

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

S. Chadhary, Resident NPC Inspector (Limerick)

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Limerick Generating Station, Units 1 and 2
Significant Deficiency Report - SDR No. 151
Damaged Spray Pond Sluice Gate Stems
NRC Construction Permit Nos. CPPR-106 and 107

Introduction

This is the final report concerning a deficiency in the performance of the spray pond sluice gate stems. The subject sluice gates and operating stems were supplied by ARMCO Steel Corporation and installed in the spray pond pump house by Bechtel Power Corporation.

Description of Deficiency:

During testing of the sluice gates, the stems used to raise and lower the gates were bent on two of the five gates. The damage to both stems occurred as the gates were being seated in the fully closed position. The specification for the sluice gates (C-88) requires that the stems be able to withstand the full thrust developed by the motor operator without being damaged.

Corrective Action:

The two damaged stems have been removed and new stems procured and installed. Review of the system showed that the operators develop equal thrust in both the opening and closing direction, but the thrust required to close the gates is significantly less than that required to open the gates. To prevent the operator from delivering excess force to the stems during gate seating, a limit switch has been added in series with the torque switch on all five operators. Work is presently under way for the addition of washers under the stem guide support brackets to increase their holding area. Prior to September 15, 1984, all work on the guide support brackets will be completed along with adjustments in the torque switch settings and the installation of pipe locks on the stems to prevent overstress of the stems during manual operation.

Safety Implications

The spray pond sluice gates are normally left in the open position allowing the Emergency Service Water (ESW) pumps and the Residual Heat Removal (RHR) pumps to take suction from spray pond during an emergency. During normal plant shutdown, the gates can be closed allowing the water from the cooling towers to be used for the RHR system. If an accident should occur at this time, the sluice gates are required to automatically open to allow the ESW and RHR pumps to take suction from the spray pond.

If the situation had gone uncorrected, it would have been possible for one or more of the stems to bend during gate closure and prevent the gate from reopening during an emergency.

The modifications made to the motor operators and the stem guide brackets will allow the stems to withstand the full thrust developed by the operators without bending.

CSM/dmm/08178402