



Pennsylvania Power & Light Company

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May 19, 1982

Mr. R. C. Haynes
Regional Administrator
Region I
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

SUSQUEHANNA STEAM ELECTRIC STATION
FINAL REPORT ON A DEFICIENCY
INVOLVING THE FAILURE OF SSES
UNIT I RCIC TURBINE EXHAUST SWING
CHECK VALVE
ERs 100450/100508 FILE 840-4/900-10/821-10
PLA-1091

Reference: (1) PLA-1005 dated February 5, 1982
(2) PLA-819 dated May 29, 1981

Dear Mr. Haynes:

This letter contains information, which in conjunction with our interim reports (references (1) and (2)) serves to provide the Commission with a final report on the deficiency involving the failure of SSES Unit I RCIC turbine exhaust swing check valve.

This deficiency was originally reported in a telephone conversation between Mr. L. Narrow of NRC Region I and Mr. A. R. Sabol of PP&L on April 10, 1981. The information contained in this report is submitted pursuant to the provisions of 10 CFR 50.55(e).

The deficiency occurred during operational testing of the RCIC system at low steam flow. The low steam flow caused the RCIC turbine exhaust swing check valve disc to cycle erratically such that the disc stud gradually wore a hole in the portion of the valve bonnet (cover) which served as the stop. The additional disc travel allowed by the worn bonnet permitted the disc edge to impact the valve body thereby resulting in a disc stud fracture.

Additionally, the valve discs were found to be made of a material which did not meet the mechanical properties of SA351 Grade CA-15 as required.

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821-10

Mr. R. C. Haynes

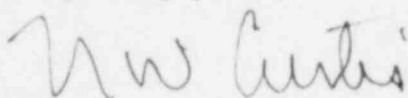
The RCIC turbine exhaust check valve manufactured by Pacific Valve Co. has been replaced by an Anchor-Darling lift type check valve which operates with an inherent damping action that enables the valve to withstand the erratic steam flow conditions present. The valve has been extensively test operated by ISG with no problems noted. An identically designed valve has been installed in the HPCI turbine exhaust line to replace the Pacific check valve which failed in a fashion similar to the RCIC check valve. Identical valves are being ordered for the Unit II applications with replacement to occur prior to Unit II fuel load. The replacement of the valves is documented on Bechtel NCR-7116.

Regarding the "Q" listed check valve discs made from SA-351, Grade CA-15 material as supplied by Pacific Valve Co. (Bechtel P.O. 8856-P-12-BC), the replacement discs have been received at SSES and their installation is in progress. All discs for Unit I will be installed prior to June 1, 1982. It is anticipated corrective actions for Unit II will be completed by December 1982. The replacement of the valve discs is documented on Bechtel NCR 8302.

Since the details of this report provide information relevant to the reporting requirements of 10 CFR 21, this correspondence is considered to also discharge any formal responsibility PP&L may have in compliance thereto.

We trust the Commission will find this report to be satisfactory.

Very truly yours,



N. W. Curtis

Vice President-Engineering & Construction-Nuclear

MHC:JS:sab

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