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February 1, 1982


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

SUSQUEHANNA STEAM ELECTRIC STATION
FINAL REPORT OF A DEFICIENCY INVOLVING INADEQUATE
THICKNESS OF MAIN STEAM RELIEF VALVE DISCHARGE LINE FLANGES
ER 100450 FILES 900-10/821-10
PLA-1007

Reference: PLA-960 dated November 13, 1981

Dear Mr. Haynes:

This letter serves to provide the Commission with a final report on a deficiency relating to inadequate thickness of main steam relief valve discharge line flanges.

This deficiency was previously disclosed to the Commission during a meeting between Mr. R. A. Schwan and Mr. J. Wiggins of NRC Region I on October 9, 1981. The reference above provided the Commission with an interim report on the subject deficiency.

The attachment to this letter contains a description of the deficiency, its cause, safety implications, and corrective action taken and planned. This information is furnished pursuant to the provisions of 10 CFR 50.55(e).

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

N. W. Curtis
Vice President-Engineering & Construction-Nuclear

BMS:sab



Attachment

IE 27
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cc: Mr. Richard C. DeYoung (15 copies)
Director-Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. G. McDonald, Director (1)
Office of Management Information & Program Control
U. S. Nuclear Regulatory Commission
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Mr. Gary Rhoads
U. S. Nuclear Regulatory Commission
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Attachment to PLA-1007
SSES PLA-1007
ER 100450 Files 900-10/821-10

SUBJECT

Inadequate thickness of SSES Unit 1 Main Steam Relief Valve discharge line flanges.

DESCRIPTION OF DEFICIENCY

Bechtel NCR-8177 and NCR-8204 identified ten out of sixteen MSRV discharge line flanges with thicknesses below the minimum allowable by the design code (1/4" to 3/8" below). The flanges are 10" x 12", 300# ANSI expander flanges manufactured by Taylor Forge and supplied through ITT Grinnell.

CAUSE OF DEFICIENCY

While the specific cause of the deficiency is unknown, the existence of the nonconforming flanges at SSES can be attributed to the failure of Taylor Forge to provide flanges of the proper thickness consistent with their certification of compliance to procurement documents. The dimensional error was not discovered by ITT Grinnell Receiving Inspection Department because they relied on Taylor Forge's certification and considered the parts acceptable. The Bechtel Supplier Quality Representative (shop inspector), in accordance with the assigned Quality Inspection Plan, did not dimensionally inspect the flanges but relied on ITT Grinnell and Taylor Forge certifications to verify that thickness measurements had been performed.

ANALYSIS OF SAFETY IMPLICATIONS

The Main Steam Relief Valves are required to discharge steam into the suppression pool during primary system overpressurization. A failure of one or more flanges during an overpressurization incident could result in the drywell exceeding its design pressure. PP&L has concluded that the improper flange thickness represents a significant deficiency in the fabrication of the flanges.

This deficiency could have adversely affected the safe operation of SSES and will require component repairs to meet the intended safety function. Improper flange thickness is therefore considered to be a reportable deficiency under the provisions of 10 CFR 50.55(e).

CORRECTIVE ACTION

The ten deficient flanges will be replaced by flanges obtained from Unit 2 which were measured for proper thickness. The Bechtel Supplier Quality Representative will ensure, via dimensional inspection check, that the replacement flanges for Unit 2 will be of proper thickness. Identification and replacement of the deficient flanges have been documented on Bechtel Management Corrective Action Report #1-76 and Bechtel Nonconformances #8177 and #8204.

The sixteen flanges are the only safety related expander flanges supplied by Taylor Forge to Susquehanna SES. All other expander flanges were supplied by either Tube Turns or National Flange and Fitting and were measured and found to be of proper thickness.

It is therefore concluded that the deficienty is limited to Taylor Forge flanges and replacement of the deficient flanges represents a comprehensive corrective action.