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February 4, 1983

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

50-388

SUSQUEHANNA STEAM ELECTRIC STATION
FINAL REPORT OF A DEFICIENCY INVOLVING
RECIRCULATION PUMP LUG WELDS
ER 100508 FILE 821-10
PLA-1513

Reference: PLA-1076, May 5, 1982

Dear Mr. Haynes:

This letter serves to provide the Commission with a final report on defects identified in the welds of the Unit 2 Recirculation Pump Support Lugs.

This deficiency was originally reported by telephone to Mr. E. C. McCabe of NRC Region I on January 6, 1983 by Mr. J. R. Sabol of PP&L. At that time it was agreed that PP&L's written report would be a followup to the report that was made on the same condition for Unit 1 which was provided to the Commission in the referenced PLA-1076.

The attachment to this letter contains a description of the deficiency, its cause, an analysis of safety implications and the corrective action taken. This information is furnished pursuant to the provisions of 10CFR50.55(e).

Since the details of this report provide information relevant to the reporting requirements of 10CFR21, 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

JS:pvm

Attachment

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SUBJECT

Defects identified in the welds of the support lugs on the Unit 2 Reactor Recirculation Pumps manufactured by Byron-Jackson and supplied by General Electric.

DESCRIPTION

As the result of problems on Unit 1 Pumps (as reported to the Nuclear Regulatory Commission on May 5, 1982 per PLA-1076), NDE was performed on the Unit 2 "A" and "B" Reactor Recirculation Pump support lug attachment welds. Rejectable indications were found and documented on GE Field Deviation Disposition Request #KR2-241 for all four lugs on each pump.

Two out of four support lugs on "B" Pump contained a full penetration "double V" weld that required grinding to the root of the weld to remove the defects. The remaining two lugs on "B" Pump and all four lugs on "A" Pump contained surface and slightly subsurface defects that only required minor rework to correct.

CAUSE

In the two cases requiring grinding to the weld root, the cause of the defects can be attributed to the failure of the welder to achieve full penetration in certain areas of the backside of the welds. This is normally due to insufficient backgouging.

SAFETY IMPLICATIONS

Each of the four pump lugs is designed to support 33% of full pump load. The two major weld defects in "B" Pump could have resulted in loss of lug attachment. Loss of two or more lugs from a single pump could result in separation of the pump from the recirculation line which would adversely affect the safe operation of SSES. This is a significant deficiency in construction which required repairs to the pump in order for it to perform its intended safety function. PP&L therefore considers this condition reportable under the provisions of 10CFR50.55(e).

CORRECTIVE ACTION

The corrective action for the two major weld defects in the "B" Pump support lugs consisted of defect removal and weld repair. The completed repair welds were liquid penetrant examined and found acceptable. All work and examinations were completed in accordance with GE instruction and ASME B&PV Code Section XI.

February 4, 1983

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ER 100508 File 821-10
Mr. R. C. Haynes

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