



Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101 • 215 / 770-5151

Norman W. Curtis
Vice President-Engineering & Construction-Nuclear
215/770-7501

50-388

May 31, 1983

Mr. J. M. Allan
Acting Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

SUSQUEHANNA STEAM ELECTRIC STATION
INTERIM REPORT OF A DEFICIENCY INVOLVING
ITT GRINNELL SNUBBER BRACKETS
ER 100508 FILE 821-20
PLA-1677

Dear Mr. Allan:

This letter serves to provide the Commission with an interim report on a deficiency involving the lack of $\pm 5^\circ$ movement in ITT Grinnell Snubber brackets. This deficiency was originally reported by telephone to Mr. E. C. McCabe of NRC Region I on 4/29/83 by Mr. J. Saranga of PP&L as potentially reportable under the requirements of 10CFR50.55(e) for SSES Unit II.

The attachment to this letter contains a description of the deficiency, its cause, its safety implications, and the corrective action taken and planned. PP&L anticipates providing the Commission with a final report in October 1983. The final report will contain any pertinent additional information obtained as a result of our continuing evaluation and will include a description of our specific corrective action. This information is furnished for Unit II pursuant to the provisions of 10CFR50.55(e).

Since the details of this report provide information relevant to the reporting requirements of 10CFR21 for Unit II, 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/dmm

Attachment

8306210079 830531
PDR ADOCK 05000388
S PDR

IE27
11

May 31, 1983

2

SSES
ER 100508

PLA- 1677
FILE 821-10

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

Mr. G. McDonald, Director
Office of Management Information & Program Control
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Mr. Gary Rhoads
U.S. Nuclear Regulatory Commission
P. O. Box 52
Shickshinny, PA 18655

Records Center
Institute of Nuclear Power Operations
1100 Circle 75 Parkway, Suite 1500
Atlanta, GA 30339

INTERIM REPORT

1.0 SUBJECT

Inadequacies associated with the design, manufacture, and installation of Pacific Scientific (PSA) mechanical shock suppressors and associated ITT Grinnell rear brackets in Unit II of the Susquehanna Project.

2.0 DESCRIPTION OF DEFICIENCY

The clearance between the PSA shock suppressor (sizes 1/4, 1/2, 1, 3, 10, 35, and 100) and ITT Grinnell rear brackets does not conform to the $\pm 5^\circ$ movement criteria specified in the design drawings. This condition exists because the weld inside some of the ITT Grinnell rear brackets is too large and interferes with the snubber rod end pivoting on the ball bushing.

3.0 CAUSE OF DEFICIENCY

PSA snubber assemblies 306 and 307 were introduced to the project as standard assemblies using ITT Grinnell designed pipe clamps, extension pieces, and brackets that would match the Pacific Scientific mechanical snubbers. The Figure 306 and 307 designs have the feature of a $\pm 5^\circ$ cone of action of the pipe clamp.

Internal dimensions/details of the snubbers were not inspected on receipt because they were part of the internal design of a standard assembly received from ITT Grinnell as a finished product ready for installation. ITT Grinnell's rear bracket designs specified a minimum interior weld size but failed to specify a maximum size. Consequently, the welded rear brackets in some cases were manufactured with an oversized weld which interferes with the capability of the snubber rod end to pivot required $\pm 5^\circ$ on the ball bushing. Therefore, the inability of the Figure 306 and 307 assemblies to provide the $\pm 5^\circ$ cone of action is a result of inadequate design considerations by ITT Grinnell.

4.0 ANALYSIS OF SAFETY IMPLICATIONS

Pacific Scientific shock suppressors and ITT Grinnell pipe clamps, Figure 306/307 are used extensively throughout the plant on Seismic Category I safety related piping systems. Restraining the snubber from swinging through an arc of $\pm 5^\circ$ may result in a case where the snubber would bind during thermal or seismic movement of the piping system. Failure of a shock suppressor assembly to perform properly and/or tearing of the pipe clamp could lead to overstressing of the pipe. Since this could affect the ability to safely shut down the plant, this condition is considered reportable under the provision of 10CFR50.55(e).

SSES PLA-1677
ER 100508 FILE 821-10

5.0 CORRECTIVE ACTIONS

As a result of the problem identified with ITT Grinnell rear brackets and Pacific Scientific shock suppressors (snubbers), all Unit 2 snubbers previously accepted by Q.C. will be reinspected to determine the extent of the interferences. Also, the design and installation processes are being reviewed by PP&L/Bechtel to determine an appropriate corrective action plan. This plan will address suppressor/rear bracket assemblies previously installed in Unit II as well as requirements for future installations.