

Public Service  
Electric and Gas  
Company

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May 5, 1983

Mr. James M. Allen, Acting Administrator  
U. S. Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Region I  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

Dear Mr. Allen:

SIGNIFICANT CONSTRUCTION DEFICIENCY  
ITT GRINNELL SNUBBER ASSEMBLIES  
HOPE CREEK GENERATING STATION

On April 13, 1983, a verbal report was made to Region I, Office of Inspection and Enforcement representative, L. E. Tripp, advising of a potentially significant construction deficiency concerning nonconforming dimensional conditions of mechanical shock arrestor brackets supplied by ITT Grinnell. The following report is provided in accordance with the requirements of 10CFR50.55(e).

Description of Deficiency

Mechanical shock arrestor brackets supplied by ITT Grinnell have potential interference problems which could restrict proper operation. The affected assemblies are ITT Grinnell figures 306N and 307N in sizes 1, 3, 10, 35, and 100, manufactured prior to April 1980. The problem is due to over-size welds on rear brackets and inadequate coping of the pipe clamps that may preclude the ability of the snubbers to achieve the requisite 10° included angle cone of action to the pipe clamp axis.

In April 1980, ITT Grinnell instituted a design change to preclude this problem with their mechanical snubber brackets.

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Analysis of Safety Implications

As indicated in NRC IE Information Notice No. 83-20, received subsequent to our initial 10CFR50.55(e) notification, restricted motion of mechanical snubbers could lead to cyclic loadings that were not part of the original design stress analysis. The magnitude of such loading depends on the amount of binding caused by the lateral loading on the snubber. Should it become great enough, the snubber could be permanently damaged and possibly "freeze" (i.e., lock permanently in one position). Depending on the snubber position when it freezes, the piping system could experience a stress reversal when the thermal loading is removed.

If the condition had gone undetected and uncorrected, and the snubber locked in a "worst-case" position, stresses on safety related pipe could have exceeded the design parameters and adversely affected safe operation/shutdown of the plant. We, therefore, consider this condition to be reportable in accordance with 10CFR50.55(e).

Corrective Action

Bechtel Power Corporation, our Architect/Engineer and Constructor, has performed an inspection of 350 suspect snubber assemblies in conjunction with ITT Grinnell personnel. This inspection was concluded the week of April 18, 1983, and identified interference problems on 95 rear brackets and 80 pipe clamps. These conditions are documented in Nonconformance Report Nos. 2175 and 2176.

Since none of the snubber assemblies have been installed, the affected components will be returned to ITT Grinnell for rework.

Very truly yours,



CC: Office of Inspection and Enforcement  
Division of Reactor Construction Inspection  
Washington, D. C.

NRC Resident Inspector - Hope Creek  
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