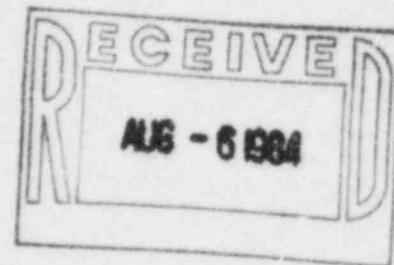


# The Light company

Houston Lighting & Power P.O. Box 1700 Houston, Texas 77001 (713) 228-9211

August 3, 1984  
ST-HL-AE-1118  
File Number: G12.204

Mr. John T. Collins  
Director, Region IV  
U. S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76102



Dear Mr. Collins:

South Texas Project  
Units 1 & 2  
Docket Nos. STN 50-498, STN 50-499  
Final Report Concerning  
NPSI Snubber Assembly Rear Brackets

On July 6, 1984, pursuant to 10CFR50.55(e), Houston Lighting & Power Company (HL&P), notified your office of an item concerning rear brackets for snubbers supplied by Nuclear Power Services, Inc. (NPSI). Attached is the final report concerning this item.

If you should have any questions concerning this matter, please call Mr. Michael E. Powell (713) 993-1328.

Very truly yours,

*J. T. Oprea, Jr.*  
G. W. Oprea, Jr.  
Executive Vice President

MEP/mg

Attachment: Final Report Concerning NPSI Snubber  
Assembly Rear Brackets

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Houston Lighting & Power Company

August 3, 1984  
ST-HL-AE-1118  
File Number: G12.204  
Page 2

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Revised 07/13/84

South Texas Project  
Units 1 and 2  
Final Report Concerning  
NPSI Snubber Assembly Rear Brackets

I. Summary

In some cases, a forged rear bracket (i.e., version B rear bracket) for use in snubber applications has been supplied by Nuclear Power Services, Inc. (NPSI) rather than a machined rear bracket (i.e., version A rear bracket). The version B bracket is not an acceptable substitute due to interferences which will occur in angular applications of the snubber. The potential exists that snubbers which move into the area of interference may be rendered inoperable due to damage or binding at the rear bracket thus preventing the snubber from performing its intended function.

II. Description of Deficiency

On July 6, 1984, pursuant to 10CFR50.55(e), Houston Lighting and Power Company (HL&P) notified the NRC Region IV, of the above item concerning rear brackets for snubber assemblies supplied by NPSI.

The problem was discovered during an installation fit-up hold point for material verification prior to welding of the rear bracket. Rear brackets supplied for use in snubber applications are required to be a machined rear bracket (SMRB version A per NPSI catalog change notice 81-STP-2, Sheet S18B). The strut rear bracket (SRRB version A) is identical and may be used in a snubber assembly. However, forged rear brackets (SRRB version B) were supplied with the snubber assemblies by NPSI.

The version B rear bracket is not an acceptable substitute due to interference which takes place for sizes SRRB-06, 08, 10, 12, and 14 when used on a snubber up to snubber sizes PSA 10 or A/D 1600. This interference takes place when the snubber assembly is at an angle of about 30° to 90° from the normal, when viewed from one ear of the bracket. The interference is between the snubber body at the forward bracket end for short center-to-center dimension snubbers and between the snubber body and the paddle end for any length of fixed snubber (see Figure 1).

Snubbers which move into the area of interference may be rendered inoperable due to damage or binding at the rear bracket, thus preventing the snubber from performing its intended function. This will limit free movement of the piping system thereby inducing additional stress into the piping which may cause an overstressed condition.

### III. Corrective Action

A corrective action work plan has been initiated which consists of the following main elements.

1. NPSI has issued a blanket NCR on the rear brackets supplied to date. In addition, shipments of additional version B rear brackets were put on hold by NPSI.
2. NPSI has provided a final list of 275 snubber assemblies supplied to STP containing version B rear brackets.
3. Version B rear brackets on snubber assemblies will be replaced with version A brackets for those snubber sizes identified in Section II.
4. The Bechtel Procurement Supplier Quality Inspection Plan has been revised to include an in-process verification that rear brackets are in compliance with supplier approved drawings.

We anticipate completion of replacement of the version B brackets within the next six (6) months.

### IV. Recurrence Control

Measures have been taken to improve the effectiveness of inspections by NPSI and the Bechtel Supplier Quality Representative (SQR). NPSI will verify at their final inspection hold point that the fabricated item is consistent with shop drawing/catalog data sheet requirements for the rear brackets. The Bechtel SQR will verify on a sample basis (approximately 5%) that the proper bracket is included.

### V. Safety Analysis

A detailed safety analysis was not performed. However, assuming a conservative worst case scenario, the interference problem with the version B rear brackets could possibly cause an overstressing of safety-related piping and supports.

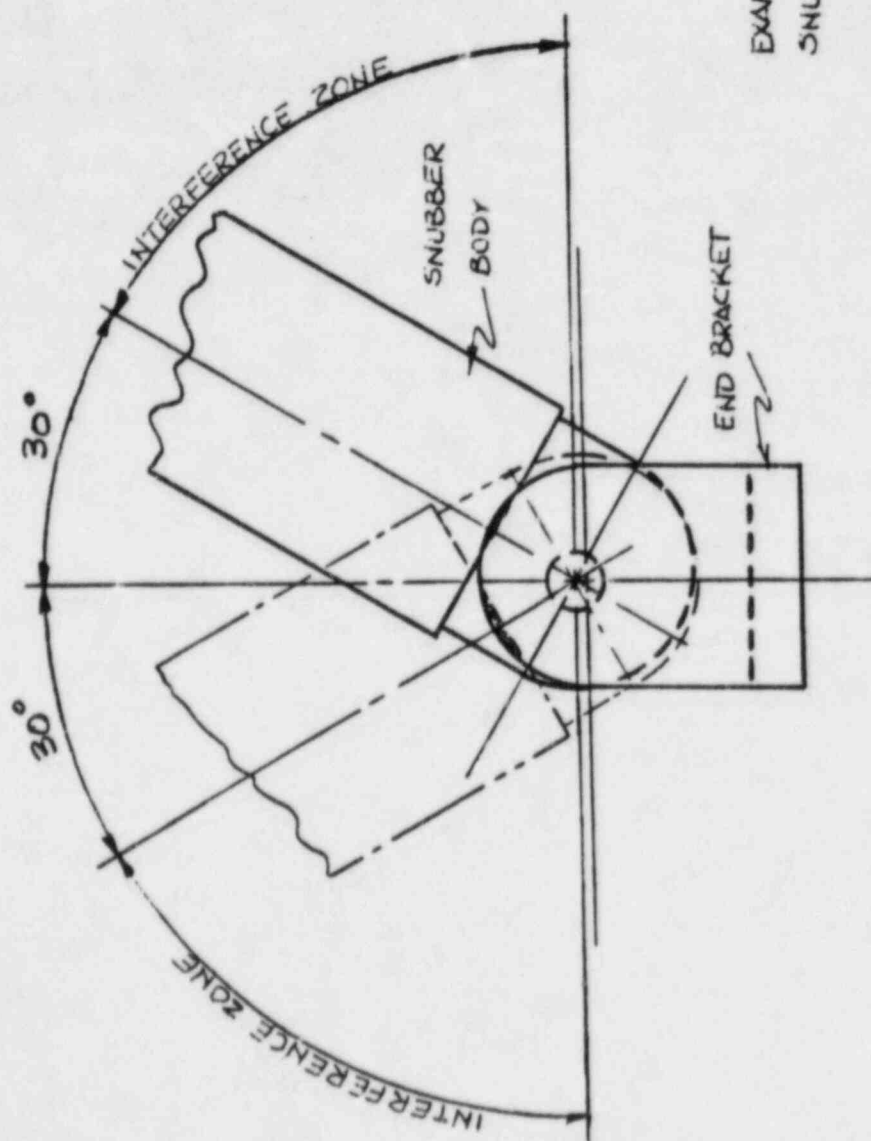


FIGURE 1

EXAMPLE :  
SNUBBER SIZE A/D 1600