



**Arizona Nuclear Power Project**

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March 26, 1986  
ANPP-35713-EEVBJr/LAS/DRL-92.11

U. S. Nuclear Regulatory Commission  
Region V  
1450 Maria Lane - Suite 210  
Walnut Creek, California 94596-5368

Attention: Mr. D. F. Kirsch, Acting Director  
Division of Reactor Safety and Projects  
Palo Verde Nuclear Generating Station (PVNGS)  
Unit 3  
Docket No. 50/530

Subject: Interim Report - DER 86-08  
A 50.55(e) Potentially Reportable Deficiency Relating To  
Grinnell #2 Sway Strut Clamp Interference  
File: 86-006-216; D.4.33.2; 86-056-026

Reference: Telephone Conversation between A. Hon and D. R. Larkin on  
February 26, 1986. (Initial Reportability - DER 86-08)

Dear Sir:

The NRC was notified of a potentially reportable deficiency in the referenced telephone conversation. At that time, it was estimated that a determination of reportability would be made within thirty (30) days. (March 28, 1986)

Due to the extensive investigation and evaluation required, an Interim Report is attached. It is now expected that this information will be finalized by April 29, 1986, at which time a complete report will be submitted.

Very truly yours,

E. E. Van Brunt, Jr.  
Executive Vice President  
Project Director

EEVB/DRL/ldf

Attachment

cc: See Page Two

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PDR ADOCK 05000530  
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DER 86-08 - INTERIM REPORT  
Mr. D. F. Kirsch  
Acting Director  
ANPP-35713-EEVBJr/LAS/DRL-92.11  
March 26, 1986  
Page Two

cc: J. M. Taylor, Director  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

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INTERIM REPORT - DER 86-08  
POTENTIAL REPORTABLE DEFICIENCY  
ARIZONA NUCLEAR POWER PROJECT  
PVNGS UNIT 3

I. Potential Problem

During the resolution of NCR PA-12132 it was found from a dimensional check that interference could occur between the ends of the ITT Grinnell #2 sway strut pipe clamp and the weld connecting the rod end to the swivel bearing paddle. This interference does not allow the sway strut to have a 10° included angle cone of action to the pipe clamp axis as specified in the vendors Load Capacity Data sheets. The problem appears to be applicable to clamps provided before 1983 since subsequent clamps have a shorter distance from the center line of the load stud to the end of the clamp that eliminates the interference.

There are 21 Q class pipe support designs that utilize #2 sway struts (see attached). Seven of these have piping deflection that would rotate the sway strut towards the pipe clamp ears. Original piping design analysis assumed the strut free to rotate. If interference occurs, additional loads will be induced that could rotate the clamp or be transferred to the piping system. Strut clamp rotation would not be detrimental to the operation of the piping system. Increased pipe loadings require evaluation for effects.

EVALUATION

Special Construction Inspection Planning (CIP) 703.0 was initiated to inspect the 21 Q-class #2 sway struts installed in Unit 3. Four of these are equivalent size Corner and Lada sway struts and do not have a potential interference problem. SI-130-H-002 had reduced clearance identified on NCR PA-12132. SG-011-H-018 was found to have adequate clearances. The remaining 15 Grinnell #2 sway struts were found to have inadequate clearance to allow  $\pm 5^\circ$  angulation. These are documented on NCR PX-12292.

Of the 16 Unit 3 sway struts with reduced clearance, only six have pipe motion perpendicular to the clamp ears. The pipe motions for these were checked against the available clearances and five were found to have sufficient clearance to allow unrestricted pipe motion. The clearance of SI-130-H-002 only allows approximately 0.3" out of 0.9" pipe motion. This condition is being evaluated to determine impact on the piping system.

Units 1 and 2 have completed hot functional testing and no pipe motion restriction was identified relative to sway strut interference. Although no significant problem is anticipated, investigation of #2 sway struts for these units is continuing.

II. Approach To and Status of Proposed Resolution

For Unit 3, the piping system of sway strut SI-130-H-002 is being evaluated with restricted pipe motion to determine the disposition of NCR PA-12132.

II. (continued)

The conditions for the sway struts identified on NCR PX-12292 are being verified in order to justify a use-as-is disposition.

Five sway struts in Unit 1 and two sway struts in Unit 2 could have a potential interference problem. These will be evaluated and inspected as necessary to confirm the acceptable pipe motions experienced during hot functional testing.

ITT Grinnel has been notified of the deficiency of #2 sway struts and the potential impact with respect to 10CFR21. Grinnel has indicated that this problem was identified and addressed several years ago. No record of notification to ANPP has been found in Bechtel engineering records. ITT Grinnell is searching their records for applicable information, including any necessary corrective action. Upon receipt, this information will be incorporated into the final report of the DER.

III. Projected Completion of Corrective Action  
and Submittal of the Final Report

The complete evaluation and final report are forecast to be completed by April 29, 1986.

Q-CLASS #2 SWAY STRUTS

	Unit 1	Unit 2	Unit 3	Pipe Motion Perpendicular to Clamp Ears
13-CH-142-H-004	X	X	X	
13-NC-087-H-021			X	
13-NC-092-H-022			X	
13-SG-008-H-018	X		X	
13-SG-008-H-019	X		X	
13-SG-011-H-013	X		X	
13-SG-011-H-018	X	X	X	
13-SI-072-H-014	X		X	X
13-SI-072-H-011	X	X	X	
13-SI-073-H-002	X	X	X	X
13-SI-130-H-002			X	X
13-SI-178-H-009				
13-SI-194-H-022	X			X
13-SI-202-H-015	X		X	
13-SI-202-H-016	X		X	
13-SI-220-H-005			X	X
13-SI-220-H-015	X		X	X
13-SI-220-H-017	X		X	
13-SI-240-H-002				
13-SI-240-H-007				
13-SI-241-H-011	X	X		X

X = Grinnell #2 Sway Strut

Blank = Corner and Lada #2 Sway Strut