

Arizona Public Service Company

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

Attention: Mr. D. M. Sternberg, Chief
Reactor Projects Branch 1

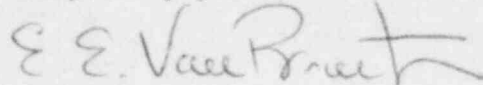
Subject: Final Report - DER 83-28
A 50.55(e) Reportable Condition Relating to Snubbers From
Pacific Scientific Were Installed In Violation of Reserve
Range Requirements
File: 83-019-026; D.4.33.2

Reference: A) Telephone Conversation between A. D'Angelo and R. Tucker on
April 27, 1983

Dear Sir:

Attached is our final written report of the deficiency referenced above,
which has been determined to be Not Reportable under the requirements of
10CFR50.55(e).

Very truly yours,



E. E. Van Brunt, Jr.
APS Vice President
Nuclear Projects Management
ANPP Project Director

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Enclosure

cc: See Page 2

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U. S. Nuclear Regulatory Commission
Page 2

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FINAL REPORT - DER 83-28
DEFICIENCY EVALUATION 50.55(e)
ARIZONA PUBLIC SERVICE COMPANY (APS)
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I. Description of Deficiency

Installation Specification 13-PM-204, Rev. 11, Para. 12.2.1, states in part that "The cold piston setting (CPS), at the time of installation, may differ from the setting indicated on the pipe support design drawing, provided the CPS plus any resultant thermal growth, as indicated on the pipe support design drawings, does not extend or retract the mechanical shock arrestor into the 1 inch reserve range."

While performing preservice examinations, it was noted that fifteen (15) mechanical shock arrestors had final installation configurations that placed the cold set position, plus the anticipated thermal growth, in violation of the reserve range requirement noted above. Nonconformance Reports (NCR's) S-255-1M through S-267-1M, S-269-1M, and S-270-1M identify the arrestors in question. The subject arrestors, installed on safety related piping systems, are Pacific Scientific PSA 1/4, PSA 1/2. and PSA 3 devices.

II. Analysis of Safety Implications

The design criterion used to establish the cold setting is given in the Pipe Support Design Manual, Section 4.8.1, Paragraph 3.2.C, which states, in part, the arrestor should accommodate "the design stroke plus an additional amount equal to 30% of the manufacturers rated stroke or 1 inch, whichever is less, in the direction of thermal growth." The pipe support designer includes this travel reserve at the end of the thermal displacement as an additional conservative margin. As such, this reserve could be reduced or eliminated based on engineering evaluation of specific snubber installations. The intent of paragraph 12.2.1 of specification 13-PM-204 is to allow reasonable CPS tolerance for installation of snubbers, while maintaining the intent of the design criterion.

Each NCR condition has been evaluated for safety significance. Results of this evaluation show that all but one of the subject arrestors have installed cold settings such that they meet the above criterion or have sufficient travel beyond the calculated hot position to be considered acceptable as installed. The exception, snubber 1-CH-026-00Z (NCR S-256-1M), has an installed cold setting such that it will restrain the pipe from 1/16 inch of thermal expansion at the arrestor location. The piping was analyzed for this restriction and found to be acceptable as installed per Computer Analysis NC-229 (dated 5/5/83).

Based upon the above evaluation, there is no evidence to indicate that, if left uncorrected, the applicable safety related piping systems would be subjected to thermal expansion stresses beyond the design analysis such that a system would fail to perform its safety related function during the lifetime of the plant. This condition is consequently evaluated as not reportable under the requirements of 10CFR50.55(e).

III. Corrective Action

- 1) Specification Change Notice 3390 is being issued against Specification 13-PM-204 to clarify the intent of Paragraph 12.2.1 so that the criterion used for mechanical shock arrestor installation is compatible with design practices.
- 2) NCR's S-255-1M through S-267-1M, S-269-1M and S-270-1M will be dispositioned use-as-is.