

Arizona Public Service Company

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May 25, 1984
ANPP-29602-TDS/TRB

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

Attention: Mr. T. W. Bishop, Director
Division of Resident
Reactor Projects and Engineering Programs

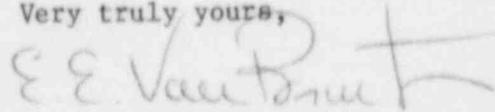
Subject: Final Report - DER 84-3
A 50.55(e) Reportable Condition Relating to Feedwater
Isolation Valves, Lower 4-Way Valve Was Found Stuck During
Testing.
File: 84-019-026; D.4.33.2

Reference: A) Telephone Conversation between P. Johnson and T. Bradish on
January 24, 1984.
B) ANPP-28912, dated February 21, 1984 (Interim Report)
C) ANPP-29202, dated March 30, 1984 (Time Extension)

Dear Sir:

Attached is our final written report of the Reportable Deficiency under
10CFR50.55(e), referenced above.

Very truly yours,



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

EEVB/TRB:db
Attachment

cc: See Page Two

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Mr. T. W. Bishop
DER 84-3
Page Two

cc: Richard DeYoung, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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FINAL REPORT - DER 84-03
DEFICIENCY EVALUATION REPORT
ARIZONA PUBLIC SERVICE COMPANY
PVNGS UNITS 1, 2, 3

I. Description of Deficiency

As documented on DER 83-80, a discrepancy between the specified fast closing time of 5.0 seconds and the supplier designed closure time of 20.0 seconds, required the return of the hydraulic actuator assembly for Unit 1 Feed Water Isolation Valve (FWIV), tag number LJ-SGA-UV-137 to the supplier Anchor-Darling.

During the factory retesting program, it was discovered that the lower four-way valve did not operate properly. Disassembly of the valve, revealed that a black residue was affecting the valve operation. Anchor-Darling has determined that the deposits may be disintegrated Grafoil tape used as a pipe sealant on tubing connections to the four-way valve. This condition was documented on SFR/NCR SM-3537, based on Anchor-Darling telex No. 9109501970 dated 12-3-83.

Anchor-Darling has stated that the original shipment of valves used Loctite No. 277 as pipe sealant, and rework of the valves in the field may have used other pipe sealant materials.

Anchor-Darling has recommended that all Unit 1, 2 and 3 FWIVs and Main Steam Isolation Valves (MSIV) be inspected to ensure no other pipe sealant except Loctite No. 277 was used during field rework. The MSIVs are similar in design and also supplied by Anchor-Darling.

II. Analysis of Safety Implications

The FWIVs and MSIVs are normally open and designed to fail closed during a design basis event (DBE). The four-way valves on the actuator, provided a switching path to allow hydraulic oil from the actuator accumulator to fast close the valve during a DBE. Entry of foreign materials into the four-way valve internals, could prevent the actuator from performing its safety-related function.

Based on the above, this construction deficiency is evaluated as reportable under the requirements of 10CFR50.55(e), since if this condition were to remain uncorrected, it would represent a significant safety condition.

III. Corrective Action

- A. SFR/NCR SM-3537 will be dispositioned to inspect and rework Unit 1 FWIVs and MSIVs to remove unacceptable pipe sealant and replace with Loctite No. 277, as applicable, prior to fuel load. Loctite No. 277 is recommended by Anchor-Darling and is included in WPP/QCI No. 14 for use on the MSIVs and FWIVs.
- B. Bechtel Engineering has issued Investigation Report IR-021 for Units 2 and 3 FWIV and MSIV valves. Any nonconformance will be documented as new NCRs and cross-reference DER 84-3 for the reportability disposition.

Any rework required as a result of the Investigation Report will be completed prior to fuel load for the respective units.