Arizona Public Service Company

November 5, 1984
ANPP-31033-TDS/TRB

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

Attention: Mr. T. W. Bishop, Director
Division of Reactor Safety and Projects

Subject: Final Report - DER 84-21
A 50.55(e) Reportable Condition Relating To Rosemount Transmitters Not Torqued To Specified Value.
File: 84-019-026; D.4.33.2

Reference: A) Telephone Conversation between T. Young and J. Cook on April 31, 1984
B) ANPP-29530, dated May 17, 1984 (Interim Report)
C) ANPP-30353, dated August 29, 1984 (Time Extension)
D) ANPP-30532, dated September 27, 1984 (Time Extension)
E) ANPP-30980, dated October 26, 1984 (Time Extension)

Dear Sir:

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

Very truly yours,

EEVanBrunt/BSK

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

EEVB/TRB/nj
Attachment

cc: See Page Two

IE-27

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 84-21
DEFICIENCY EVALUATION 50.55(e)
ARIZONA PUBLIC SERVICE COMPANY (APS)
PVNGS UNITS 1, 2, 3

I. Description of Deficiency

During a routine site audit, the following discrepancies between design drawings and "as-built" configurations were noted:

A. Combustion Engineering (C-E) Drawings N001-13.01-727 and -728 specify 300 series stainless steel instrument-to-bracket mounting hardware for Rosemount transmitters supplied by C-E. NCR SJ-3712 documents the use in Unit 1 of numerous carbon steel nuts and bolts having no grade markings and strong magnetic properties.

B. Bechtel Drawings 13-J-ZZS-161, -162, -165, -166, -167, -168, -174, and -178 specify ASTM A193, CL2 and GRB8 bracket-to-panel mounting nuts and bolts for certain Rosemount transmitters. NCR SJ-3713 documents nuts without proper marking on many transmitter installations in Unit 1.

Following the initial routine site audit, an extensive walkdown was done in Units 1 and 2.

Evaluation

The subject transmitters measure pressure, level, and flow rates in several safety-related systems. (LPSI pump A discharge flow, reactor coolant system pressure, steam generator level and MSIV hydraulic accumulator pressure). Specific tag numbers for transmitters are identified in referenced SFRs and NCRs.

These instruments require mounting hardware of specific grade material, along with proper documentation and identification mark to permit traceability. Also, the installation of these transmitters should strictly adhere to mounting procedures and detail inspection and acceptance codes.

In the event of a DBE, instruments not properly mounted could become disengaged and not perform their intended safety function.

The root cause for the deficiencies described herein is the craftsmen's failure to properly install the instruments and the failure of field engineers and quality control to identify the use of improper materials.

II. Analysis of Safety Implications

Based upon the above, this condition is evaluated as reportable under 10CFR50.55(e); since, if left uncorrected, it could represent a significant safety hazard.

This condition is evaluated as not reportable under 10CFR Part 21 since it does not constitute a defect in a basic component.

III. Corrective Action

In Units 1 and 2 mounting hardware (bolts and nuts) were replaced to conform with material and installation requirements. In certain cases, the vendor (C-E) advised that specific installed hardware were an acceptable substitute (e.g., carbon steel in lieu of 300 series stainless steel). Where this occurred, the vendor prints were revised (see referenced FCR) to reflect the alternate acceptable material. The above corrective action will be implemented and documented by referenced SFRs/NCRs list in Section IV.

Specific instructions (IOM-E-11465) have been issued to Construction to assure proper installation and preclude recurrence of this deficiency in Unit 3. Also, a walkdown of 26 sample Q-class installations per unit is being done per Project Validation of Q Instrument Procedure No. 5.26-08 to further assure that other Q-class installations are installed per the requirements of the design documents.

IV. References

(1) SFRs/NCRs

NCR No. SJ-3712
-3713
-4618
-4619

SFR 2SE-3082/NCR SJ4688
SFR 2EC-3083/NCR SJ4689
SFR 2SB-3084 -
SFR 2SB-3085 -
SFR 2SB-3086 -
SFR 2RC-3087/NCR SJ4690
SFR 2CH-3088 -
SFR 2CH-3089/NCR SJ4691
SFR 2RC-3090/NCR SJ4692
SFR 2RC-3091 -
SFR 2RC-3092/NCR SJ4693
SFR 2SI-3093 -
SFR 2EW-3094/NCR SJ4694
SFR 2SB-3095/NCR SJ4695
SFR 2NC-3096/NCR SJ4696
SFR 2CT-3097/NCR SJ4697
SFR 2SG-3098/NCR SJ4698
SFR 2AF-3099/NCR SJ4699

(2) Correspondence

C-E Letter #V-CE-30018 April 2, 1984
IOM E-11465 September 19, 1984 MCC #333342
Letter B/ANPP-E-122970 October 12, 1984

(3) PCRs

78,677N
82,609N