

Arizona Public Service Company

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January 3, 1984
ANPP-28539-BSK/TRB

REGION V18E

U. S. Nuclear Regulatory Commission
Region V
Creekside 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: Interim Report, Revision 1 - DER 82-80
A 50.55(e) Potentially Reportable Deficiency Relating to
Installed Conax Electrical Penetrations Low Insulation
Resistance Does Not Meet Qualification Test.
File: 84-019-026; D.4.33.2

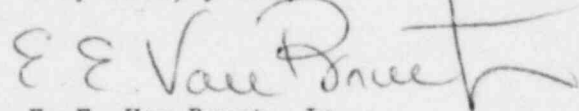
Reference: A) Telephone Conversation between T. Young and G. Duckworth on
December 17, 1982.
B) ANPP-22736, dated January 17, 1983 (Interim Report)
C) ANPP-23642, dated May 3, 1983 (Time Extension)
D) ANPP-27619, dated August 23, 1983 (Time Extension)

Dear Sir:

The NRC was notified of a potentially reportable deficiency in Reference (A) an Interim Report was transmitted by Reference (B), and Time Extensions were requested in Reference (C) and (D). At that time, it was estimated that a Final Report would be available by January 26, 1984.

Due to the extensive investigation and evaluation required, a revised Interim Report is attached. It is now expected that this information will be finalized by March 2, 1984, at which time a complete report will be submitted.

Very truly yours,



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

EEVB/TRB:ru
Attachment

cc: See Page Two

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Mr. T. W. Bishop
DER 82-80
Page Two

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

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INTERIM REPORT - DER 82-80, Rev. 1
POTENTIAL REPORTABLE DEFICIENCY
ARIZONA PUBLIC SERVICE COMPANY (APS)
PVNGS UNITS 1, 2, & 3

I. Potential Problem

Specification 13-EM-035A requires that Electrical Penetration Assemblies (EPA) be qualified to IEEE standard 317-1976. Section 5.2 of IEEE 317-76 requires that the instrumentation circuits in EPA be designed to meet the requirements of the instrumentation system in which they are used.

Review of qualification reports for terminal blocks supplied by Conax Corporation has revealed substantially low insulation resistance values during the design basis event simulation tests. Low level signals (up to a maximum 4.8VDC and 4-20 ma range) cannot tolerate this low insulation resistance condition. This could result in erroneous control functions that may jeopardize reliable plant operation under an accident condition.

II. Approach To and Status of Proposed Resolution

An investigative test was conducted by Conax Corporation on unaged terminal block samples simulating actual service and installation conditions with transmitters installed. Details of this test are given in Conax Report #IPS-1011.2 (Bechtel Log No. E035A-566-1). Similar testing was performed on aged samples, in November 1983.

The results of the testing performed by Conax on Kulka terminal blocks during the November test period, revealed that the terminal blocks failed performance qualification for the installation condition on transmitters and RTD's. The Kulka terminal blocks qualifications may be adequate for thermocouple applications. Therefore, Bechtel has requested Conax to conduct testing on Raychem splices as an alternate for the Kulka terminal blocks with regard to transmitter and RTD installations. This new program is forecast to be conducted from December 1983 to January 1984.

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

Evaluation of this condition and submittal of the Final Report is forecast to be completed by March 2, 1984.