

Arizona Public Service Company

50-529
50-530

April 6, 1984
ANPP-29237-BSK/TRB

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

Attention: Mr. John B. Martin
Regional Administrator

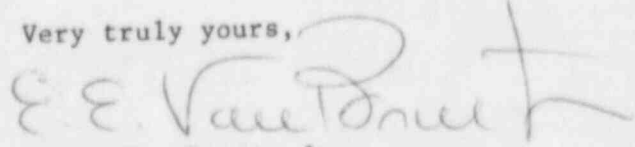
Subject: Notice of Violation
File: 84-019-026; D.4.33.2

Reference: NRC's Letter to E. E. Van Brunt, Jr., dated March 7, 1984

Dear Sir:

This letter refers to the inspection conducted by Mr. P. P. Narbut between October 31, 1983 through January 27, 1984. Our response to the Notice of Violation and to the issue raised in paragraph 2.s of the referenced letter is enclosed in Attachment A.

Very truly yours,



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

EEVB/TRB:ru

Attachment

cc: See Page Two

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cc:

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H. Foster
D. R. Hawkinson
L. E. Vorderbrueggen
G. A. Fiorelli
S. R. Frost
J. Self
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ATTACHMENT A

NOTICE OF VIOLATION

Arizona Public Service Company
Palo Verde Nuclear Generating Station

Docket Nos. 50-529, 50-530
Construction Permit Nos.
CPPR-142, 143

As a result of the inspection conducted between October 31 through January 27, 1984, and in accordance with the NRC Enforcement Policy, 10 CFR 2, Appendix C, the following violations were identified:

10 CFR 50 Appendix B Criterion V, as addressed in Section 17 of the PSAR, states, in part: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings . . . "

- A. Bechtel procedure WPP/QCI 255.0, "Cable Terminations" Revision 13 dated May 3, 1983 requires in Appendix I paragraph C.10.0 that the field engineer and the quality control engineer, "Verify proper training/bend radii at terminations is as per 13-EM-301," on the "Termination Inspection Record".

Specification 13-EM-301, Table 8.3 requires 5Kv cable, 1/C-500 KCMIL have a minimum bending radius of 12 times 1.34 or 16.08 inches.

Contrary to the above 5Kv, 1/C-500 KCMIL cables installed in the Unit 2 Diesel Generator Connection enclosures and Diesel Generator Transformer enclosure were found with radii less than 16.08 inches. The cables had been approved and accepted on the Termination Inspection Record. The acceptance dates ranged from August 6, 1982 to September 12, 1983 for cable 2EPE 01 AC1CB, 2EPE 01 BC1CB, 2EPE 02 AC1CC, and 2EPE 02 BC1CA, B and C.

This is a Severity Level IV Violation (Supplement II) applicable to Unit 2.

RESPONSE TO NOTICE OF VIOLATION

Corrective Steps Taken And Results Achieved

As a result of the NRC findings from inspections occurring between October 31, 1983 and January 27, 1984, a joint field walkdown of the installed cables in Unit 2 was performed by the cable manufacturer, Anaconda Ericsson, and Bechtel. NCR EG-3619 documents the results of this walkdown. Cable 2EPE02AC1CC which had been identified in NCR EG-3619 as the cable exceeding the bend radii criteria by the largest amount, was sent to Anaconda Ericsson for testing and analysis to determine if the increased mechanical stress incurred as a result of the lower bending radius would prevent the cable from performing its safety related function.

ATTACHMENT A (Continued)

Page Two

In addition, a walkdown of Unit 1 was conducted to identify any deficiencies in bend radii. NCR EG-3635 documents conditions where the minimum bend radius were less than design requirements by 9-15 inches. Also, NCR EG-3630 identifies that the minimum bend radius of some conduits had been exceeded. The conduits should have a minimum radius of 36 inches however, the actual installed radius is less than 36 inches.

Based on an evaluation of the above listed NCRs, DER 83-82 was issued to investigate the problems identified in the walkdowns. Anaconda Ericsson has completed testing and analysis of cable 2EPE02AC1CC and submitted their results to Bechtel Engineering for evaluation. Upon completion of this evaluation, a decision for using the installed cables listed in the NCRs and a determination of reportability and corrective action required for DER 83-82 will be made.

Corrective Steps Taken To Avoid Further Noncompliance

The Project has purchased minimum bend radius templates to ensure the accuracy of future inspections. Further corrective action steps, including formal training for QC inspectors and inspections to be performed, will be identified upon completion of DER 83-82.

Date When Full Compliance Will Be Achieved

The complete evaluation and Final Report for DER 83-82 is forecast to be completed by May 31, 1984.

- B. Bechtel procedure WPP/QCI 12 "Storage Control of Permanent Plant Items" states in paragraph 4.1 "Minimum storage requirements for permanent plant items shall be defined by the FPSAS on the MRR based on the requirements of the purchase order, the specification, specific supplier storage instructions or ANSI N45.2.2.. When minimum storage requirements are not specified, the FPSAS shall contact the LDFE for definition of storage requirements."

ANSI N45.2.2, "Packaging, shipping, receiving, storage and handling of items for Nuclear Power Plants", states in paragraph 2.7.2 "Level B-items classified to Level B are those that are sensitive to environmental conditions and require measures for protection from the effects of temperature extremes, humidity and vapors . . . the following shall be used as a guide for classifying items intended for this level classification: . . . motor control centers, switchgear and control panels."

Paragraph 6.1.2 states "Levels of Storage. Environmental conditions for items classified as Levels A, B, C, and D described in Subsection 2.7 of this Standard shall meet requirements as described in the following paragraphs: . . . Level B items shall be stored within a fire resistant, tear resistant, weathertight, and well ventilated building or equivalent enclosure."

This is a Severity Level V Violation (Supplement II), applicable to Unit 3.

RESPONSE TO NOTICE OF VIOLATION

Corrective Steps Taken And Results Achieved

After researching the finding, it has been determined that the above violation is not correctly stated. The component 3EPHA M35 was not stored Level "D". The Level "D" storage concept came from the MRR erroneously type as "D". The QC Inspector had crossed out the "D" and annotated the MRR with "B" storage requirements. The Receiving Inspection Planning also listed the storage level as "B".

However, the component was stored outside and subsequently inspected to what Construction construed to meet Level "B" storage requirements. The NEMA III enclosure is designed for outdoor service so the unit was stored outside, on dunnage, covered with a tarp and with the space heater energized. Generally, switchgear and MCC components were stored Level "B" inside Warehouse "C". The practice of Level "B" storage outside has been discontinued.

Corrective Steps Taken To Avoid Further Noncompliance

Quality control has conducted a training session to assure understanding of storage requirements to prevent recurrence. Additionally, a review was performed to identify any other related storage problems. The review identified six (6) "Q" class and seven (7) "R" class components that were stored "outside" which should have been indoors. NCR EX-4173 has been written on these components (3EPA M35 is reported on this NCR) to document the deviation from Level "B" requirements.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved by May 15, 1984, upon completion of work described in NCR EX-4173.

Response To Paragraph 2.s

A Nonconformance, as defined by ANSI N45.2.10 is, "A deficiency in characteristic, documentation, or procedure which renders the quality of an item unacceptable or indeterminate. Examples of nonconformance include: physical defects, test failures, incorrect or inadequate documentation, or deviation from prescribed processing, inspection or test procedures." However, certain conditions arising during the installation process may not require a NCR. It is the Project's position that correction to in-process work can be made within existing project specifications and procedures without the necessity of a NCR. If an unacceptable condition is discovered after the installation process is complete a NCR is required to document the problem and resolution. This practice also ensures QA control of the NCR, from validation through reportability review, to assure timely processing and document flow consistent with regulatory requirements.

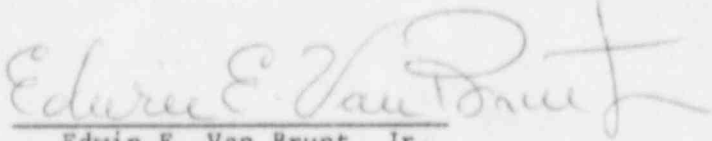
Therefore, in the matter of the issue raised in paragraph 2.s, the following comments are offered on the NRC's concerns. The use of "Rework Tags" or "Incomplete Items Lists" (IIL) does not weaken the QA program. The management decision to permit minor rework (i.e., completion by further construction processing in accordance with the original design requirements) without a formal Nonconformance Report facilitates the timely installation of commodities. This not only meets client and public responsibilities to cost and schedule, but also maintains a continuity in the QC inspection program through the more rapid turnaround of IIL's. Additionally, the inundation of the NCR system with minor rework items may tend to cloak more serious problems from QA review.

Recently, construction has implemented a program to determine the Field Engineer's effectiveness. This program, initiated by QC Administrative Instruction (QCAI) No. 1 and QCAI No. 2, provides for the monitoring of completed QC inspection functions by the QC Supervisor, of the discipline or section, and to furnish the Field Construction Manager with a feedback tool to assess the effectiveness of Field Engineering inspection.

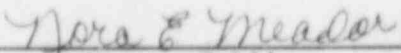
Information concerning nonconforming conditions is collected by the Project Quality Control Engineer during acceptance inspections. This information identifies to the Project Construction Manager and Area Superintendents the numbers of commodities that could not be accepted. The IIL's and NCR's are available for review and if a particular problem is repetitive, corrective action is then initiated by Construction Management. Management, therefore, is aware of both the amount and the significance of the items reported on incomplete work notifications.

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

I, Edwin E. Van Brunt, Jr., represent that I am Vice President, Nuclear Projects of Arizona Public Service Company, that the foregoing document has been signed by me on behalf of Arizona Public Service Company with full authority to do so, that I have read such document and know its contents, and that to the best of my knowledge and belief, the statements made therein are true.


Edwin E. Van Brunt, Jr.

Sworn to before me this 6th day of April, 1984.



Notary Public

My Commission Expires:

My Commission Expires April 8, 1987