



Arizona Nuclear Power Project

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January 7, 1987
ANPP-39630 -JGH/WEC/RCF/WWI-92.34

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

Attention: Mr. D. F. Kirsch, Director
Division of Reactor Safety and Projects
Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, 3
Docket Nos. 50-528, 529, 530

Subject: Final Report - DER 85-38, Revision 1
A 50.55(e) and 10CFR21 Reportable Condition Relating to QA
Audit at General Electric
File: 87-006-216; D.4.33.2

References: (A) Telephone Conversation between A. Hon and T. P. Siegfried on
November 8, 1985 (Initial Reportability - DER 85-38)
(B) ANPP-36913, dated June 11, 1986 (Final Report)

Dear Sir:

The NRC was notified of a Potential Reportable Deficiency in reference (A),
and Final Report was submitted by reference (B).

As a follow-up to verify corrective action completion a re-audit of GE was
conducted. At this time additional purchase orders issued to GE were
identified which required review for validity of proper certification.

This report contains new information based on the added parts supplied and
includes the disposition and final evaluation of each. The revisions
contained in the Description of Deficiency, the Evaluation, and the Corrective
Action reflect these added purchase orders.

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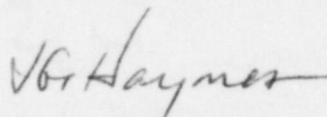
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Attached is revision 1 to our final report of the Reportable Deficiency under 10CFR50.55(e). The 10CFR21 evaluation is also included.

Very truly yours,



J. G. Haynes
Vice President
Nuclear Production

JGH/WEC/RCF/WWM:ab

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cc: Mr. J. M. Taylor, Director
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FINAL REPORT - DER 85-38, REVISION 1
DEFICIENCY EVALUATION 50.55(e)
ARIZONA NUCLEAR POWER PROJECT (ANPP)
PVNGS UNITS 1, 2, 3

I. Description of Deficiency

Bechtel Procurement Supplier Quality Department (PSQD) conducted an audit (#85-218) at the General Electric Company (GE), Switchgear Division, Philadelphia, Pennsylvania, plant on October 16-17, 1985. Purchasing activity at this time was limited to spare and replacement parts. This audit identified a safety-related concern wherein GE was processing the purchase of QLE materials as commercial grade. Consequently, the purchase order materials which had not been shipped were placed on hold pending satisfactory resolution of the concern.

As a result of the above, GE submitted corrective action committing to a revision of their existing program, to resolve problem areas, and to address spare parts procurement. Additionally, GE committed to review all past spare and replacement procurements supplied to PVNGS. This review was to investigate the adequacy of procurement control applied to substantiate qualification of parts. GE identified the root cause of this concern as an error in the computer entry program which began in June of 1985.

During March of 1986 the project conducted a reaudit of GE to verify corrective action. At that time GE provided the project a list of purchase order items which they could not substantiate qualification due to lack of documentation. This list was reflective of purchase orders processed since June of 1985. Also during this audit it was identified by GE and the audit team that the root cause of this concern could be attributed to GE not meeting or passing on all requirements of the Bechtel/ANPP purchase orders in addition to the error of computer entry programing.

Based on program revisions submitted at this time the project released the hold shipment with a commitment to verify implementation at a later date. GE committed to a review of all spare and replacement purchase orders processed prior to the initiation of the computer entry program.

During September, 1986, the project conducted a re-audit to verify implementation of GE's quality program for supplying spare parts. At this time, it was found that GE had not implemented all corrective action previously identified, nor had GE completed a review of all spare part orders prior to June of 1985. However, a list of additional affected spare part PO's was provided, which required review by GE. These spare part purchase orders are summarized in GE letter dated October 23, 1986.

Evaluation

A. Investigation

An extensive evaluation was conducted by ANPP, in cooperation with Bechtel and General Electric, of Bechtel and ANPP Purchase Orders. This evaluation was conducted to identify component parts received from the GE Switchgear Division, Philadelphia, Pennsylvania, and to determine if the project had any commercial grade items installed in Class 1E applications which may not have been processed properly and therefore were not demonstrated to be qualified. This evaluation has resulted in classifying these P.O. items into two categories as follows:

1. Items which were ordered as Class 1E however, processed as commercial grade. These items will be either cancelled, returned to GE or accepted for Class 1E applications by an engineering evaluation and dedication for the specific application.

<u>Items To Be Canceled</u>	<u>Items To Be Dedicated By ANPP Engineering or Returned to GE</u>	<u>Items Which Have Been Dedicated By ANPP Engineering</u>
33600505 Item 4, 15, 17	33600505 Item 3, 18, (partial) 2, 5, 6, 7,	33600505 Item 3 & 18 (Partial) 1
33600508 Item 3, 8, 15,	8, 9, 10, 11, 12,	33600508 Item 4, 11, 21, (partial) 1, 6, 7, 13, 14, 19
33600513 Item 1	13, 14,	33600514 Item 2, 8, 13,
33600514 Item 3, 4	16, 19	14, 24
F-169871	33600508 Item 4, 11, 21, (partial) 2, 5, 9, 10, 12, 16, 17, 18, 20, 22, 23, 24	33600515 Item 7 F-174124A and B F-175187 F-175192 F-175801 F-176686 F-180601 F-177385B F-177386 F-177589 F-177595 F-177598A and B F-179287 F-178782 F-167588 F-167084 F-167430 F-169029 Item 1, 2 F-185784 Item 1 F-185038
	33600514 Item 1, 5, 12, 6, 7, 9, 10, 11, 15, 16, 17, 18, 19, 20, 21, 22, 23	
	33600515 Item 1, 2, 3, 4, 5, 6	
	F-177385A F-169485 F-175796 F-170700	

Items to Be
Cancelled

Items to Be Returned
to GE/or Dedicated

Items Dedicated
By Engineering

F-176190	F-170474
F-176604 (partial)	F-169872
returned	F-170913
5, 1 in-	F-171231
stalled	F-171415
in Non 1E	F-171691
	F-172871
	F-173732
	F-178790

2. Marathon #160 4SC/WC terminal blocks were ordered on purchase orders F-176604 and F-170700. These terminal blocks are not qualified as Class 1E and were ordered in error. GE provided this item as qualified material. On Purchase Order F-176604, the project received six (6) terminal blocks, two of which have been installed in Units 1 and 3. The Unit 1 installation is in a non-class 1E system. The Unit 3 installation is a 1E application (3EPBBS04C) which will be removed prior to fuel load. On Purchase Order F-170700, the project received one (1) terminal block which is installed in a 1E application in Unit 3 (3EPBAS03H) and will be removed prior to fuel load.

B. Root Cause

The root cause of this concern has been identified as a key nuclear designator which was deleted from GE's computer program for order entry when they changed to a new program in June 1985, and subsequently triggered the processing of Class 1E orders as commercial grade. In addition, GE did not meet or pass on all of the requirements of the Bechtel/ANPP purchase orders.

Another contributing factor is that GE neglected to update a bill of material for its switchgear. The pre-1980 switchgear design specified Marathon terminal blocks, but Marathon refused to provide qualification documentation for these. In 1982, GE substituted the EB27 terminal blocks and committed to the project to revise all switchgear drawings, bill of material, etc. to reflect the replacement of unqualified components with qualified components, however, this was never done by GE. Consequently, Bechtel incorrectly specified the Marathon terminal block, and GE did not have checks in place to catch this error.

C. Units 1 and 2 Operability

The Marathon #160 4SC/WC terminal block supplied under purchase order F-176604 was used in Unit 1 in a non-class 1E system. None of the Marathon #160 4SC/WC terminal blocks were identified as installed in Unit 2, hence the operability of Units 1 and 2 is not effected.

Items identified as being installed in units 1 and 2 have been evaluated as acceptable and dedicated for there specific application.

D. Safety Assessment

After an Engineering Evaluation, the only items installed in the plant in a safety-related class 1E application which were determined to be unqualified were the two (2) Marathon Terminal Blocks installed in Unit 3 (3EPPAS03H & 3EPBBS04C). The Nuclear Engineering Evaluation (ECE) for purchase order 33600514, line item 12 is currently awaiting documentation from GE which is expected by January 23, 1987.

If the condition had not been identified, the material contained in this report may have been used in safety related installation.

II. REPORTABILITY ASSESSMENT

Based upon the above evaluation, the programmatic conditions addressed are evaluated as reportable under 10CFR 50.55(e) since, if left uncorrected, they could constitute a safety-significant condition by allowing the inadvertent installation of non-qualified components in Class 1E systems.

Also, the project has evaluated these conditions as reportable under the requirements of 10CFR Part 21, since GE has supplied basic components which are not acceptable for Class 1E service.

III. CORRECTIVE ACTION

1. The Project is performing the necessary activity to follow-up and verify completion of corrective action commitments which have been initiated as a result of the audits and re-audits of GE. Verification of GE's Corrective Action completion is scheduled by ANPP during the first part of February 1987 and additional follow-up will be scheduled if required.
2. The two Marathon terminal blocks installed in Unit 3 at switchgears 3EPBBS04C and 3EPBA503H will be replaced prior to fuel load under work orders 184631 and 188339.
3. Items in Section I, paragraph A category "1" are being dispositioned as indicated. The Nuclear Engineering Evaluation (ECE) for purchase order 33600514, line item 12 is currently awaiting documentation from GE which is expected by January 23, 1987. If this line item is evaluated as unqualifiable, ANPP will take the necessary action including notification to the NRC.
4. The GE switchgear bill of material was updated by a Bechtel revision (Log No. 009-28-11) to reflect usage of qualified components. No other switchgear design documentation is affected by this change. The applicable drawing updates are complete.
5. A copy of this report will be transmitted to GE for their evaluation under 10CFR Part 21.