Palo Verde Nuclear Generating Station

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102-03959 - JML/AKK/REB
June 19, 1997

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station: P1-37
Washington, DC 20555-0001

Dear Sirs:

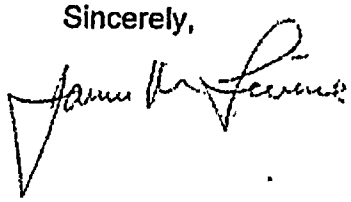
Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, and 3
Docket Nos. STN 50-528/529/530
Reply to Notices of Violation 50-530/97-05-02, and
50-528/529/530/97-05-03

Arizona Public Service Company (APS) has reviewed NRC Inspection Report 50-528/529/530/97-05 and the Notices of Violation (NOV) dated May 20, 1997. Pursuant to the provisions of 10 CFR 2.201, APS' response is enclosed. Enclosure 1 to this letter is a restatement of the NOVs. APS' response is provided in Enclosure 2.

Please note that violation "A" is being contested. The information provided to the NRC inspector responsible for evaluating the facts to support the decision to cite the violation later proved to be incorrect. The final investigation revealed additional facts which were not available at the time the violation was cited. APS' decision to contest violation "A" was discussed with NRC Region IV management in a telephone conversation on June 19, 1997.

Should you have any further questions, please contact Ms. Angela K. Krainik at (602) 393-5421.

Sincerely,



JML/AKK/REB/rlh

Enclosures

1. Restatement of Notice of Violation
2. Reply to Notice of Violation

9706300262 970627
PDR ADOCK 05000528
Q PDR

cc: E. W. Merschoff
K. E. Perkins
D. F. Kirsch
J. W. Clifford
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ENCLOSURE 1

RESTATEMENT OF NOTICES OF VIOLATION
50-530/97-05-02 and 50-528/529/530/97-05-03

NRC INSPECTION CONDUCTED MARCH 23 THROUGH

MAY 03, 1997

INSPECTION REPORT NO. 50-528/529/530/97-05

RESTATEMENT OF NOTICE OF VIOLATION "A" (50-530/97-05-02)

During an NRC inspection conducted on March 23 through May 3, 1997, two violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violations are listed below:

A. Technical Specification 6.8.1 requires, in part, that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Regulatory Guide 1.33, Appendix A, Revision 2, Section 9, requires that maintenance that can affect the performance of safety-related equipment should be performed in accordance with written procedures, documented instructions, or drawings appropriate to the circumstances.

Licensee Specification 13-EN-306, Revision 5, "Installation Specification for Cable Splicing and Termination of Cable Systems at the Palo Verde Nuclear Generating Station," Section 3.1, defines the allowable auxiliary supports fabricated to relieve stress on cable termination or splices due to cable weight and to prevent movement of cable to maintain minimum separation and minimum bend radius requirements. The allowable support may consist of Nylon TY-WRAP cable ties and bases utilizing either machine or 1/4 inch (maximum) self-tapping mounting screws, or snap-in base type configurations.

Contrary to the above

1. On September 2, 1994, the licensee used Nylon TY-WRAP cable ties to support and maintain minimum separation of cables in the Unit 3 Class 1 E 125-Vdc power Channel C battery charger and did not use bases with machine or 1/4 inch self-tapping mounting screws, or snap-in base configurations. Electrical maintenance personnel used an adhesive-backed cable tie base.

2. On March 22, 1997, the licensee used Nylon TY-WRAP cable ties to support cables in the Unit 3 Class 1 E 125-Vdc power Channel C battery charger and did not use bases with machine or 1 /4 inch self-tapping mounting screws, or snap-in base configurations. Electrical maintenance personnel used an adhesive-backed cable tie base.

This is a Severity Level IV violation (Supplement 1) applicable to Unit 3 (50-530/97005-02).

RESTATEMENT OF NOTICE OF VIOLATION "B" (50-528/529/530/97-05-03)

B. 10 CFR Part 50, Appendix B, Criterion III, "Design Control," requires that measures be established to assure that appropriate quality standards are specified and included in design documents.

Licensee Procedure 81AC-0CC06, Revisions 2.01 and 2.02, "Classification of Structures, Systems, and Components," established criteria for determining the quality classification for structures, systems and components. Step 3.1.4 requires that design output data for specific equipment identification numbers be entered into the station information management system equipment database. Step 3.5.12 requires that items which do not perform a safety function but whose structural failure could adversely affect the functions of safety related equipment during or following a design basis event be classified as "quality augmented."

Licensee internal Memorandum 284-00601, dated March 3, 1993, identified that the quality classification of components required for high energy line break mitigation, including auxiliary building penetrations be designated as quality augmented. Licensee internal Memorandum 281-00937, dated September 30, 1992, identified that all penetration seals in flooding barriers which provide separation between safety and nonsafety equipment be upgraded to quality augmented and all penetrations in the essential auxiliary building ventilation boundary be upgraded to quality augmented.

Contrary to the above, as of May 3, 1997, all auxiliary building penetrations required for high energy line break mitigation, in flooding barriers, which provided separation between safety and nonsafety equipment, and in the essential auxiliary building ventilation boundary, and which did not serve as a fire protection barrier, were not classified as quality augmented in the station information management system database.

This is a Severity Level IV violation (Supplement 1) applicable to Units 1, 2 and 3 (50-528,529,530/97005-03).

ENCLOSURE 2

REPLY TO NOTICES OF VIOLATION
50-530/97-05-02, and 50-528/529/530/97-05-03

NRC INSPECTION CONDUCTED MARCH 23 THROUGH

MAY 03, 1997

INSPECTION REPORT NO. 50-528/529/530/97-05

REPLY TO NOTICE OF VIOLATION "A" (50-530/97-05-02)

Reason For The Violation (contested)

On March 21, 1997, the input breaker for Unit 3 "C" battery charger tripped open during integrated safeguards testing. The initial investigation suggested a possible cause for the trip was a 480 Vac cable coming in close proximity to the breaker's high voltage shutdown card. The 480 Vac cable was harnessed away from the high voltage shutdown card in 1994 with an adhesive backed TY-WRAP®. Sometime after 1994, the adhesive on the TY-WRAP® backing failed and the 480 Vac cable relaxed and moved back to its original position - close to the high voltage shutdown card. The completed investigation however, concluded a malfunctioning overcurrent trip device caused the breaker to trip, not the 480 Vac cable in close proximity to the high voltage shutdown card as originally suspected. Although the physical location of the 480 Vac cable was not a factor in the breaker trip, the cable was re-routed away from the high voltage shutdown card.

An NRC inspector reviewed the circumstances surrounding the breaker trip while the investigation was still in-progress and was told by maintenance engineering that the adhesive back TY-WRAP® did not conform to specification 13-EN-306 when used as an auxiliary support. ~~The root cause of the breaker trip had not yet been determined and the applicability of specification 13-EN-306 had not been fully evaluated when NOV 50-530/97-05-02 was cited.~~

A separate investigation determined that specification 13-EN-306 was not applicable to cabling inside the vendor supplied Class 1E 125 Vdc power battery chargers. Specification 13-EN-306 is used for field-run cable. The Class 1E 125 Vdc power battery chargers were wired by the vendor in accordance with the vendor specifications and were qualified for use based on the vendor's quality assurance program. The TY-WRAPs® used in Unit 3's "C" battery charger were installed for the purpose of cable training, not for use as auxiliary supports as cited in the violation. Neither the applicable vendor specification nor specification 13-EN-306 prohibit adhesive-backed TY-WRAPs® when used in cable training applications. While experience has shown that adhesive backed TY-WRAPs® can fail when used in applications similar to the Unit 3 "C" battery charger, their use was not contrary to the applicable vendor specification or specification 13-EN-306. Regulatory Guide 1.33, requires that maintenance that can affect the performance of safety-related equipment should be performed in accordance with written procedures, documented instructions, or drawings appropriate to the circumstances. Approved work orders were used to harness the 480 Vac cable away from the high voltage shutdown card in accordance with Regulatory Guide 1.33. For these reasons, APS is contesting NOV 50-530/97-05-02.

Corrective Steps That Have Been Taken and Results Achieved

Since no violation of specification 13-EN-306 occurred, no corrective actions were required.

Corrective Steps That Will Be Taken To Avoid Further Violations

Since no violation of specification 13-EN-306 occurred, no corrective actions to avoid further violations were required.

Date When Full Compliance Will Be Achieved

Full compliance was always maintained since no violation of specification of 13-EN-306 occurred.

REPLY TO NOTICE OF VIOLATION "B" (50-528/529/530/97-05-03)

Reason For The Violation

APS identified the need to change the quality classification from NQR to QAG for non-fire barrier penetrations in September 1992 (for flooding and essential ventilation) and in March 1993 (for high energy line break). Actions were initiated in the corrective action program for the flooding and essential ventilation evaluations; however, the actions were closed without all actions being completed. At the time, significant attention was applied to penetration upgrades for fire function documentation and the flooding and essential ventilation functions were overlooked.

In the case of the high energy line break evaluation, a design change package was generated for physical modifications to the units and included the penetration upgrade to QAG in the station information management system for high energy line break barriers. An action was not entered into the corrective action tracking system to track the QAG upgrade portion of the change. This design change was canceled in 1995 and it was not recognized that the QAG upgrade would be deleted.

The reason for both of these errors is cognitive personnel error, in that the individuals involved did not recognize and did not verify that the QAG upgrade classification for flooding, essential ventilation, and high energy line break had not been implemented.

It is important to note the design, procurement and installation of penetration seals is the same for seals classified as NQR or QAG. Therefore the physical plant is not affected by this error. Additionally many of the affected seals are already classified as QAG because of their fire function.

Corrective Steps That Have Been Taken and Results Achieved

The corrective action tracking system has been updated to track the completion of upgrading the non-fire barrier penetrations to QAG, for flooding, essential ventilation, and high energy line break considerations, in the station information management system by July 30, 1997.

Corrective Steps That Will Be Taken To Avoid Further Violations

Cognitive personnel errors that are the result of mental lapses are not normally corrected with revised procedures or additional training. Nevertheless, the issues of ensuring completion of all requirements necessary to close an action in the corrective action tracking system and of ensuring corrective actions are entered into the corrective action tracking system will be addressed in industry events training for Engineering Support Personnel.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved by July 30, 1997 when the station information management system is updated to reflect a QAG classification for penetrations that are required to function in flooding, essential ventilation, and high energy line break events.